U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

CLASSIFICATION ORDER 1858

January 2, 2007

Project No. X7044

The following classification changes will be effected by this order:

	Class	Subclass	Art Unit	Ex'r Search Room No.
Abolished:	**None**			
Established:	**348**	E3.001-E3.009, E3.01, E3.011-E3.019, E3.02, E3.021-E3.029, E3.03, E3.031-E3.039, E3.04, E3.041-E3.049, E3.05, E3.051-E3.053, E5.001-E5.009, E5.01, E5.011-E5.019, E5.02, E5.021-E5.029, E5.03, E5.031-E5.039, E5.04, E5.041-E5.049, E5.05, E5.051-E5.059, E5.06, E5.061-E5.069, E5.07, E5.071-E5.079, E5.08, E5.081-E5.089, E5.09, E5.091-E5.099, E5.1, E5.101-E5.109, E5.11, E5.111-E5.119, E5.12, E5.121-E5.129, E5.13, E5.131-E5.139, E5.14, E5.141-E5.145, E7.001-E7.009, E7.01, E7.011-E7.019, E7.02, E7.021-E7.029, E7.03, E7.031-E7.039, E7.04, E7.041-E7.049, E7.05, E7.051-E7.059, E7.06, E7.061-E7.069, E7.07, E7.071-E7.079, E7.08, E7.081-E7.089, E7.09, E7.091-E7.094 E9.001-E9.009, E9.01, E9.011-E9.019, E9.02, E9.021-E9.029, E9.03, E9.031-E9.039 , E9.04, E9.041-E9.049, E9.05, E9.051-E9.057, E11.001-E11.009, E11.01, E11.011-E11.019, E11.02, E11.021, E11.022, E13.001-E13.009, E13.01, E13.011-E13.019, E13.02, E13.021-E13.029, E13.03, E13.031-E13.039, E13.04, E13.041-E13.049, E13.05, E13.051-E13.059, E13.06, E13.061-E13.069, E13.07, E13.071-E13.075, E15.001, E17.001-E17.006	2622	Not Applicable

No other classes are impacted by this order:

This order includes the following:

A. CLASSIFICATION MANUAL CHANGES

C. CHANGES TO THE U.S.-I.P.C. CONCORDANCE

D. DEFINITION CHANGES AND NEW OR ADDITIONAL DEFINITIONS

CLASSIFICATION ORDER 1858

January 2, 2007

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SPECIAL APPLICATIONS
.Film, disc or card scanning
108 ..Flying spot scanner
109 ...Color TV
110 ..Slide
111 ...Color TV
112 ..Microfilm
113 .Navigation
114 ..Remote control
115 ..Head-up display
116 ..Direction finding or location determination
117 ..Aircraft or spacecraft
118 ..Land vehicle
119 ...Program control (e.g., path guidance, etc.)
120 ...Farm vehicle
121 .Simulator
122 ..Visibility (e.g., fog, etc.)
123 ..Aircraft or spacecraft
124 ..Ship
125 .Flaw detector
126 ..Of electronic circuit chip or board
127 ..Of transparent container or content (e.g., bottle, jar, etc.)
128 ..Of surface (e.g., texture or smoothness, etc.)
129 ..By comparison with reference object
130 ...With stored representation of reference object
131 ..With specific illumination detail
132 ...With strobe illumination
133 ..With circuit detail
134 ...Including line to line comparison
135 .Object or scene measurement
136 ..Projected scale on object
137 ..Scale on camera target
138 ..Pulse or clock counting
139 ..Multiple cameras on baseline (e.g., range finder, etc.)
140 ..Distance by apparent target size (e.g., stadia, etc.)
141 ..By cursor coordinate location
142 ..With camera and object moved relative to each other
143 .Observation of or from a specific location (e.g., surveillance)
144 ..Aerial viewing
145 ...With linear array
146 ...With rotating reflector
147 ...With transformation or rectification
148 ..Vehicular
149 ...Traffic monitoring
150 ..Point of sale or banking
151 ..Camera concealment
152 ..Intrusion detection
153 ...Using plural cameras
154 ....Motion detection
155 ...Motion detection
156 ..Access control
157 ..Sporting event
158 ..Portable
159 ..Plural cameras
160 ..Reading meter or data printer
161 .Object comparison (e.g., remote verification of signature, etc.)
162 RESPONSIVE TO NONVISIBLE ENERGY
163 .Sonic or ultrasonic
164 .Infrared
165 ..Pyroelectric
166 ..With linear array
167 ...With rotating reflector
168 ..With rotating reflector
169 OBJECT TRACKING
170 .Using tracking gate
171 ..Centroidal tracking
172 .Centroidal tracking
173 CATHODE-RAY TUBE BURN-IN PREVENTION
174 .Camera
175 CAMERA WITH BUILT-IN TEST SIGNAL GENERATOR, TEST PATTERN, OR ADJUSTING ADJUNCT
176 .Setup
177 DISPLAY OR RECEIVER WITH BUILT-IN TEST SIGNAL GENERATOR, TEST PATTERN, OR ADJUSTING ADJUNCT
178 .Setup
179 ..Color match comparator
180 MONITORING, TESTING, OR MEASURING
181 .Test signal generator
182 ..Chroma or color bar
183 ..VITS or ILTS
184 .Monitor
185 ..Combined plural functions (e.g., picture and waveform monitor)
186 ..Vectorscope
187 .Testing of camera
188 ..Using test chart
189 .Testing of image reproducer
190 ..Alignment-manufacturing
191 ..Display photometry
192 .Transmission path testing
193 ..Signal to noise ratio
194 .Synchronization (e.g., H-sync to subcarrier)
195 MECHANICAL OPTICAL SCANNING
196 .Color TV
197 .With fiber optics
198 .By acoustic wave
199 .Moving aperture
200 ..Drum or belt
201 ..Multiple scanning elements
202 .Moving lens or refractor
203 .Moving reflector
204 ..Helical element
205 ..Vibrating or oscillating
206 SPECIAL SCANNING (E.G., SPIRAL, RANDOM, ZIGZAG)
207.99 CAMERA, SYSTEM AND DETAIL
207.1 .Camera connected to computer
207.11 ..Computer can control camera
207.2 .Camera connected to printer
208.99 .Camera image stabilization
208.1 ..Electrical motion detection

CAMERA, SYSTEM AND DETAIL

.Camera image stabilization

208.2 ..Mechanical motion detection (gyros, accelerometers, etc.)

208.3 ..Differentiating unintentional from purposeful camera movement (pan, tilt)

208.4 ..Motion correction

208.5 ...Including both electrical and mechanical correcting devices

208.6 ...Electrical (memory shifting, electronic zoom, etc.)

208.7 ...Mechanical

208.8 ....Variable angle prisms

208.11 ....Optics, lens shifting

208.12 ..Combined with other camera operations (e.g., autofocus or autoexposure details)

208.13 ...Motion correction plus resolution enhancement

208.14 ...Object tracking

208.15 ...Warning/indicator

208.16 ...Changing camera function based on motion detection (mode, power supply)

209.99 .With flying spot scanner

210.99 ..For color scanning

211.99 .Remote control

211.1 ..Communication methods

211.2 ...Wireless

211.3 ...Network (master/slave, client or server, etc.)

211.4 ..Control devices

211.5 ...Multiplexed or other embedded control signals

211.6 ...Preprogrammed or stored control instructions

211.7 ...Electromechanical controls (joystick, trackball, mouse, etc.)

211.8 ...Monitor used to control remote camera

211.9 ..Camera characteristics affecting control (zoom angle, distance to camera time delays, weight, etc.)

211.11 ..Plural cameras being controlled

211.12 ...Video teleconferencing (including access or authorization)

211.13 ....Monitor (including for controlling camera)

211.14 ..Camera located remotely from image processor (i.e., camera head)

215.1 .With streak device

216.1 .Low light level

217.1 ..With image intensifier

218.1 .Unitary image formed by compiling sub-areas of same scene (e.g., array of cameras)

219.1 .Swing driven

220.1 .Still and motion modes of operation

221.1 ..Exposure control

222.1 .Combined image signal generator and general image signal processing

223.1 ..Color balance (e.g., white balance)

224.1 ...Dependent upon operation or characteristic of iris, flash, lens, or filter)

225.1 ...With means for preventing colored object from effecting color balance

226.1 ..Including flicker detection (e.g., fluorescent)

227.1 ...With ambient light sensor

228.1 ...Responsive to output signal

229.1 ..Combined automatic gain control and exposure control (i.e., sensitivity control)

230.1 ...Readout of solid-state image sensor considered or altered

231.99 ..With details of static memory for output image (e.g., for a still camera)

231.1 ...Available memory space detection

231.2 ...Image file management

231.3 ...Storage of additional data

231.4 ....Audio

231.5 ....Time or date, annotation

231.6 ....Processing or camera details

231.7 ...Detachable

231.8 ....Multiple detachable memories

231.9 ....Details of communication between memory and camera

240.99 ..Zoom

240.1 ...Using both optical and electronic zoom

240.2 ...Electronic zoom

240.3 ...Optical zoom

234 ..Details of luminance signal formation in color camera

235 ...With means for providing high band and low band luminance signals

236 ....Using distinct luminance image sensor

237 ....For single sensor type camera supplying plural color signals

238 ...Using distinct luminance image sensor

239 ..Camera and video special effects (e.g., subtitling, fading, or merging)

241 ..Including noise or undesired signal reduction

242 ...Color TV

243 ...Dark current

244 ....With control of sensor temperature

245 ....Using dummy pixels

246 ...Defective pixel (e.g., signal replacement)

247 ....With memory of defective pixels

248 ...Smear

249 ....In charge coupled type sensor

250 ...In charge coupled type sensor

251 ...Shading or black spot correction

252 ..With transition or edge sharpening (e.g., aperture correction)

253 ...Color TV

254 ..Gray scale transformation (e.g., gamma correction)

255 ...Amplitude control (e.g., automatic gain control)

256 ....Color TV (e.g., saturation)

257 ..With DC level control

CAMERA, SYSTEM AND DETAIL

.Combined image signal generator and general image signal processing
..With DC level control
258 ...With bias illumination
259 ....Combined with color separating optical system
260 ....For single scanning device color camera
261 .....Plural bias illuminators
262 .With plural image scanning devices
263 ..Color imagery registration
264 ..Scanning devices offset in the image plane
265 ..Each supplying only one color signal
266 .With single image scanning device supplying plural color signals
267 ..Separate complete images on face of pickup device
268 ..Color sequential
269 ...With color sequential illumination
270 ...With moving color filters
271 ....Four or more color types
272 ..Solid-state multicolor image sensor
273 ...With color filter or operation according to color filter
274 ....Having overlapping elements
275 ....Staggered or irregular elements
276 ....Including transparent elements
277 .....With three or more colors
278 ....Based on more than four colors
279 ....Based on four colors
280 ....Based on three colors
281 ....X-Y architecture
282 ....Charge coupled architecture
283 .....With multiple output registers
284 ..Cathode-ray tube
285 ...Phase separable signals
286 ....With indexing
287 .....Conductive grid at target
288 .....Index elements outside of image area
289 ...Frequency separable signals
290 ....Specified optical filter arrangement
291 .....Combined with grating, lens array, or refractor
292 .....Having diagonally arranged stripes
293 ....Interdigital signal electrodes
294 .Solid-state image sensor
295 ..Time delay and integration mode (TDI)
296 ..Electronic shuttering
297 ..Accumulation or integration time responsive to light or signal intensity
298 ...In charge coupled type image sensor
299 ....With overflow gate or drain
300 ..With amplifier
301 ...Pixel amplifiers
302 ..X - Y architecture
303 ...With charge transfer type output register
304 ...With charge transfer type selecting register
305 ...With interlacing
306 ...Charge injection device (CID)
307 ...Photosensitive switching transistors or "static induction" transistors
308 ...Including switching transistor and photocell at each pixel site (e.g., "MOS-type" image sensor)
309 ...Exclusively passive light responsive elements in the matrix
310 ....With diode in series with photocell
311 ..Charge-coupled architecture
312 ...With timing pulse generator
313 ...With bias charge injection
314 ...With excess charge removal (e.g., overflow drain)
315 ...With staggered or irregular photosites or specified channel configuration
316 ...Charges transferred to opposed registers
317 ...Field or frame transfer type
318 ....With recirculation of charge
319 ....Charges alternately switched from vertical registers into separate storage registers; or having vertical transfer gates
320 ....Interline readout
321 .....Using multiple output registers
322 ...Interline readout
323 ....Using multiple output registers
324 ...Line transfer type
325 .Cathode-ray tube
326 ..Automatic beam focusing or alignment
327 ..Automatic beam current control
328 ..Remanent image erasure
329 ..With emissive target or photocathode (e.g., orthicon)
330 ...Dissector tube
331 ..With photoconductive target (e.g., vidicon)
332 .Array of photocells (i.e., nonsolid-state array)
333.01 .With electronic viewfinder or display monitor
333.02 ..With display of additional information
333.03 ...Including display of a frame and line of sight determination
333.04 ...Including warning indication
333.05 ..Display of multiple images (e.g., thumbnail images, etc.)
333.06 ..Movable or rotatable unit
333.07 ...Detachable
333.08 ..Including optics
333.09 ...With optical viewfinder (e.g., correction for parallax, etc.)
333.1 ...With projector function
333.11 ..Use for previewing images (e.g., variety of image resolutions, etc.)
333.12 ..Modification of displayed image
333.13 ..Power saving mode
335 .Optics
336 ..Color separating optics

CAMERA, SYSTEM AND DETAIL
.Optics
..Color separating optics
337 ...Prism arrangement
338 ....With dichroic layer or air gap between prism sections
339 ...Exclusively dichroic elements
340 ..With optics peculiar to solid-state sensor
341 ..Optical viewfinder
342 ..With frequency selective filter (e.g., IR cut, optical LPF, etc.)
343 ..Optical multiplexing
344 ..Optical path switching
345 ..Focus control
346 ...With display of focusing condition or alarm
347 ...With zoom position detection or interrelated iris control
348 ...Using active ranging
349 ...Using image signal
350 ....With auxiliary sensor or separate area on imager
351 ....With oscillation of lens or sensor to optimize error signal
352 ....With motion detection
353 ....By detecting contrast
354 ....By analyzing high frequency component
355 .....Plural high frequencies
356 .....Detection of peak or slope of image signal
357 ...Servo unit structure or mechanism
359 ..Fiber optics
360 ..Lens or filter substitution
361 ...Automatic
362 ..Exposure control
363 ...Automatic control of iris, stop, or diaphragm
364 ....Based on image signal
365 .....Contrast
366 ....Based on ambient light
367 ...Periodic shuttering
368 ....Rotary
369 ..Changing viewing angle via optics
370 .With object or scene illumination
371 ..Flash or strobe
372 .Power supply
373 .Support or housing
374 ..For internal camera components
375 ..For specified accessory
376 ..Portable or hand-held
377 CATHODE-RAY TUBE DISPLAY EXCESSIVE VOLTAGE CONTROL
378 .With disabling
379 CATHODE-RAY TUBE DISPLAY AUTOMATIC BLACK LEVEL BIAS CONTROL
380 CATHODE-RAY TUBE DISPLAY BEAM CURRENT CONTROL
381 .With beam energy determining color
382 ..Variable depth of penetration of electron beam into the luminescent layer
383 MODULAR IMAGE DISPLAY SYSTEM
384.1 BANDWIDTH REDUCTION SYSTEM
385.1 .Plural video programs in single channel
386.1 ..Color television
387.1 ..Data rate reduction
388.1 .Multiple channel (e.g., plural carrier)
389.1 ..Including one conventional or compatible channel (e.g., two channel NTSC systems)
390.1 .Data rate reduction
391.1 ..Specified color signal
392.1 ...Sub-Nyquist sampling
393.1 ...Direct coding of color composite signal
394.1 ....Predictive coding
395.1 ....Transform coding
396.1 ...Including luminance signal
397.1 ..Using separate coders for different picture features (e.g., highs, lows)
398.1 ...Subband encoding (e.g., low horizontal/low vertical frequency, low horizontal/high vertical frequency)
399.1 ..Picture feature dependent sampling rate or sample selection
400.1 ..Involving hybrid transform and difference coding
401.1 ...With prior difference coding
402.1 ....Including motion vector
403.1 ..Involving transform coding
404.1 ...Adaptive
405.1 ....Sampling
406.1 ....Normalizer
407.1 ....Motion
408.1 ...Transformed sample selection (e.g., hierarchical sample selection)
409.1 ..Involving difference transmission (e.g., predictive)
410.1 ...Involving both base and differential encoding
411.1 ...Plural predictors
412.1 ....Including temporal predictor (e.g., frame difference)
413.1 .....Including motion vector
414.1 ....Involving pattern matching
415.1 ...Including temporal prediction (e.g., frame difference)
416.1 ....Including motion vector
417.1 ....Involving pattern matching
418.1 ...Involving pattern matching
419.1 ...Coding element controlled by buffer fullness
420.1 ..Involving block coding
421.1 ...Involving minimum, maximum, or average of block
422.1 ..Involving pattern matching
423.1 ..Arrangements for multiplexing one video signal, one or more audio signals, and a synchronizing signal
424.1 ..Sub-Nyquist sampling
424.2 ...Adaptive
425.1 ..Associated signal processing

BANDWIDTH REDUCTION SYSTEM
.Data rate reduction
..Associated signal processing
425.2 ...Involving error detection or correction
425.3 ...Involving signal formatting
425.4 ...Involving synchronization
426.1 .Format type
427.1 ..Including frequency folding (e.g., subsampling)
428.1 ...Spotwobble (e.g., pixels from plural lines form single transmitted line)
429.1 ...Including video-related information
430.1 ...Using two or more frames
431.1 ....Motion adaptive
432.1 ..Added video information in standard channel format
433.1 ...Including additional modulation of picture carrier (e.g., quadrature)
434.1 ...Including information in sync, blanking, or overscan
435.1 ....During vertical blanking interval
436.1 ...Including use of a subcarrier
437.1 ..Individual processing of different parts of image frequency band (e.g., sum and difference, high band/low band)
438.1 .Individual processing of different parts of image frequency band (e.g., sum and difference, high band/low band)
439.1 .Frame field or line dropping followed by time expansion and time compression
440.1 .Scan rate variation
441 FORMAT CONVERSION
442 .Involving polar to Cartesian or vice versa
443 .Involving both line number and field rate conversion (e.g., PAL to NTSC)
444 ..Specified chrominance signal
445 .Conversion between standards with different aspect ratios
446 .Progressive to interlace
447 .Field rate type flicker compensating
448 .Line doublers type (e.g., interlace to progressive IDTV type)
449 ..Including nonstandard signal detection
450 ..Specified chrominance processing (e.g., Y/C separation)
451 ...Motion adaptive
452 ..Motion adaptive
453 .Specified chrominance processing
454 ..PAL to NTSC or vice versa
455 ..In which simultaneous signals are converted into sequential signals or vice versa
456 ...Field or frame sequential to simultaneous
457 ..Frequency change of subcarrier
458 .Changing number of lines for standard conversion
459 .Changing number of fields for standard conversion
460 DIVERSE DEVICE CONTROLLED BY INFORMATION EMBEDDED IN VIDEO SIGNAL
461 NONPICTORIAL DATA PACKET IN TELEVISION FORMAT
462 .Audio
463 .Full field
464 .Sync
465 .Data separation or detection
466 .Error correction or prevention
467 .Data format
468 .Including teletext decoder or display
469 FORMAT
470 .Adapted to reduce noise or for frequency modulation (e.g., variable gain)
471 .Including pulse modulation of video signal (e.g., pulse width, PAM)
472 ..Pulse code modulation
473 .Including additional information
474 ..For controlling video processing (e.g., digitally assisted video)
475 ..Additional modulation of picture carrier (e.g., quadrature)
476 ..During sync, blanking, or overscan
477 ...During both vertical and horizontal blanking
478 ...During vertical blanking
479 ...During horizontal blanking
480 ....Sound signal
481 .....Plural (e.g., stereo or SAP)
482 ...Sound signal
483 ....Plural (e.g., stereo or SAP)
484 ..Sound signal
485 ...Plural (e.g., stereo or SAP)
486 ..Including the use of a subcarrier
487 .Broadband (e.g., occupying two adjacent channels or parts thereof)
488 .Specified color signal format
489 ..Time division multiplexing of luminance and chrominance (e.g., MAC)
490 ..Field or frame sequential systems
491 ..Simultaneous and sequential (e.g., SECAM)
492 ..Simultaneous signals
493 ...Luminance plus dual-phase modulated color carrier
494 ...Dot sequential
495 .Of sync signal
496 ..Color
497 FLUTTER OR JITTER CORRECTION (E.G., DYNAMIC REPRODUCTION)
498 .Specified color
499 ..Using frequency shifting (e.g., heterodyne)
500 SYNCHRONIZATION
501 .Reprocessing
502 ..Specified color
503 .For sequential color components
504 ..With line rate switch (e.g., SECAM)
505 .Phase locking regenerated subcarrier to color burst

SYNCHRONIZATION
.Phase locking regenerated subcarrier to color burst
506 ..Burst gate
507 ..Including demodulator
508 ...Digital
509 ...With line rate switch (e.g., PAL)
510 .Locking of computer to video timebase
511 .Control of picture position
512 .Locking of video or audio to reference timebase
513 ..Frame or field synchronizers
514 ...Color television
515 ..Audio to video
516 ..By controlling video or sync generator
517 ...Color television
518 ..Including compensation for transmission delays
519 ...Color television
520 ..Color
521 .Sync generation
522 ..Means on video signal generator
523 ..With addressable memory
524 ..With counter or frequency divider
525 .Sync separation
526 ..Field or frame identification
527 ...Color
528 ..Including automatic gain control (AGC)
529 ..To produce distinct vertical output
530 ...With distinct horizontal output
531 ..To produce distinct horizontal output
532 ..By amplitude
533 ..Noise reduction
534 ...Amplitude limiting
535 ...Noise inversion
536 .Automatic phase or frequency control
537 ..Of sampling or clock
538 ...With data interpolation
539 ...Color
540 ..Horizontal sync component
541 ...Cascaded phase or frequency adjusting
542 ...Plural distinct operating modes
543 ....Line rates
544 ....Locking rates
545 .....Different mode during vertical blanking
546 ...Countdown
547 ..Vertical sync component
548 ...Countdown
549 ..Using color subcarrier
550 .To achieve interlaced scanning
551 .Of mechanical scan
552 COMBINED WITH DIVERSE ART DEVICE (E.G., COMPUTER, TELEPHONE)
553 BASIC RECEIVER WITH ADDITIONAL FUNCTION
554 .Multimode (e.g., composite, Y, C; baseband RF)
555 ..For receiving more than one format at will (e.g., NTSC/PAL)
556 ...For format with different aspect ratio
557 ...Color processing
558 ..Format detection
559 .Instant replay or freeze frame
560 ..Color television processing
561 .For magnification of part of image
562 ..Color television
563 .For display of additional information
564 ..Simultaneously and on same screen (e.g., multiscreen)
565 ...Picture in picture
566 ....Color television
567 ....Memory
568 ....Compression
569 ..Receiver indicator (e.g., on screen display)
570 ...Tuning indication
571 IMAGE SIGNAL PROCESSING CIRCUITRY SPECIFIC TO TELEVISION
572 .A/D converters
573 ..Analog to binary
574 ..Including dither
575 .Video reprocessing
576 .Selective image modification (e.g., touch up)
577 ..Color change type
578 .Special effects
579 ..Strobe (e.g., ball tracker)
580 ..Geometric transformation
581 ...Size change
582 ....Color signal
583 ...Rotation
584 ..Combining plural sources
585 ...Including priority key
586 ...Foreground/background insertion
587 ....Including hue detection (e.g., chroma key)
588 ...Multiple distinct images (e.g., splitscreen)
589 ...Including insertion of characters or graphics (e.g., titles)
590 ...Specified details of key signal generation or processing
591 ....Self keyers (e.g., key generated from video being mixed
592 .....Chroma key (e.g., hue detector)
593 ....Artificial key generation
594 .....Wipes signal generator
595 .....Fades signal generator
596 .....Window signal generator (e.g., rectangle)
597 ....For generation of soft edge (e.g., blending)
598 ...Specified details of signal combining
599 ....Color signal
600 ....Graphic or character insertion type
601 ...Marker or pointer generator
602 .Display controlled by ambient light
603 ..Specified color (e.g., saturation and contrast control)
604 .Including nonstandard signal detection controlling processing
605 .Including vertical interval reference (e.g., VIR)

IMAGE SIGNAL PROCESSING CIRCUITRY SPECIFIC TO TELEVISION

606 .Combined noise reduction and transition sharpening
607 .Noise or undesired signal reduction
608 ..Processing at encoder or transmitter (e.g., pre-correction)
609 ...Reduction of chrominance luminance cross-talk (e.g., precomb)
610 ....Adaptive
611 ...To suppress echo
612 ...Color signals
613 ...Complementary system (e.g., preemphasis - deemphasis)
614 ..Ghost elimination (e.g., multipath)
615 ..Blackspot or shading correction (e.g., corrects for fixed pattern defects)
616 ..Dropout compensator (e.g., replacement type)
617 ...For color television
618 ..For removal of low amplitude random noise (e.g., variable bandwidth)
619 ...Averaging type
620 ....Using frame or field delays (e.g., motion adaptive)
621 ....For color television
622 ...Noise component generator, limiter, subtractor type
623 ...Coring type
624 ..For color television
625 .Transition or edge sharpeners
626 ..Scanning velocity modulation
627 ..Including processing to prevent the addition of noise (e.g., coring enhancement signal, noise responsive peaking control)
628 ..Vertical transition
629 ...Including horizontal transition
630 ..Color television processing
631 ...Luminance transition controls chrominance transition
632 .Sound muting
633 ..Including picture blanking
634 .Picture blanking
635 ..For color television
636 ..At transmitter
637 ..Retrace type
638 .Chrominance signal demodulator
639 ..Digital
640 ..PAL signal
641 ..For quadrature signal (e.g., NTSC)
642 .Color encoder or chrominance signal modulator
643 .Color killer
644 ..Including chrominance signal amplitude control
645 .Chrominance signal amplitude control (e.g., saturation)
646 ..Digital
647 ..Automatic
648 ...Picture responsive (e.g., overload)
649 .Hue control
650 ..Scene by scene color correction
651 ..Digital
652 ..Fleshtone corrector (e.g., fixed)
653 ...By phase change of chrominance signal or subcarrier
654 ..By phase change of chrominance signal or subcarrier
655 .Color balance or temperature (e.g., white balance)
656 ..Receiver type
657 ...Including feedback control
658 ....Including optical sensor to observe display (e.g., CRT)
659 .Matrixing or mixing
660 ..Digital
661 ..Masking (e.g., R, G, B to R', G', B')
662 .Chrominance phase adjuster (e.g., inverter)
663 .Chrominance-luminance signal separation
664 ..Logic circuit type
665 ..Including comb filter (e.g., using line, field, frame delays)
666 ...Including adaptive artifacts removal (e.g., switchable trap or LPF in luma channel)
667 ...Adaptive comb filter
668 ....Selects or blends two or more separated signals to derive output
669 .....Including frame or field delays (e.g., motion adaptive)
670 ...Including frame or field delays
671 .Gray scale transformation
672 ..Using histogram
673 ..Combined contrast control and brightness or DC level control
674 ..Nonlinear amplitude modification (e.g., gamma)
675 ...Color television
676 ...By adding outputs from parallel channels
677 ...With specified DC level control
678 ..Automatic range control (e.g., AGC, automatic contrast control)
679 ...Color television
680 ...At transmitter
681 ...Carrier envelope
682 ...Sync or blanking
683 ....Noise reduction or elimination
684 ....Keyed
685 ...Delayed AGC
686 ..Manual contrast control (e.g., linear)
687 .Brightness control
688 ..By subtracting averaged active video portion (e.g., flare)
689 ..With DC clamping
690 .White limiter
691 .DC insertion
692 ..Color television
693 ..At transmitter
694 ..For plural signals or signal components

IMAGE SIGNAL PROCESSING CIRCUITRY SPECIFIC TO TELEVISION
.DC insertion
695 ..Level inserted during keying signals (e.g., keyed clamp)
696 ..Insertion level derived by key signals
697 ...Level derived within feedback path
698 ..Diode
699 .Motion vector generation
700 .Motion dependent key signal generation or scene change detection
701 ..Specified processing of frame or field difference signal (e.g., noise reduction, key signal spreading)
702 ..Composite color signal
703 .Hue or saturation detector
704 .Sweep expansion or reduction
705 .Switching
706 ..receiver type
707 .Amplifiers
708 .Color television signal processing
709 ..Signal modification for one gun color tube (e.g., dot sequential)
710 ..Differential phase or amplitude responsive
711 ..Frequency response modification
712 ..Luminance channel circuitry
713 ..Chrominance channel circuitry
714 .With details of static storage device
715 ..For storing a sequence of frames or fields
716 ..Specified data formatting (e.g., memory mapping)
717 ...Of color signal
718 ..Accessing circuitry
719 ...Including processor interface (e.g., CPU)
720 .Digital
721 ..Plural processing units
722 STUDIO EQUIPMENT
723 TELEVISION TRANSMITTER CIRCUITRY
724 .Modulator
725 RECEIVER CIRCUITRY
726 .Demodulator
727 ..Color television
728 .Color television
729 .Television receiver adapted to receive radio broadcast or in combination with radio receiver
730 .Power supply
731 .Tuning
732 ..Search tuning
733 ..Tuning voltage
734 .Remote control
735 .Automatic frequency control
736 .Sound traps
737 .Intercarrier circuits
738 .Sound circuit
739 VIDEO DISPLAY
740 .Array of shutters
741 .Red-white phenomena
742 .Color sequential
743 ..With moving color filters
744 .Projection device
745 ..With alignment, registration or focus
746 ...Raster shape distortion
747 ...Raster size or position compensation
748 ..With cooling device
749 ...Liquid
750 ..Plural parallel light modulators
751 ...Liquid crystal
752 ...Using birefringent or polarizing medium (e.g., Kerr cell, Pockel's cell, etc.)
753 ....Electron beam addressed
754 ...Acousto-optic (e.g., Bragg cell, etc.)
755 ...Deformable medium
756 ...With optical element
757 ....Beam combining
758 ..Plural serial light modulators
759 ..Single light modulator
760 ...Color TV
761 ....Liquid crystal
762 ....Using birefringent or polarizing medium (e.g., Kerr cell, Pockel's cell, etc.)
763 .....Electron beam addressed
764 ....Deformable medium
765 .....Fluid
766 ...Liquid crystal
767 ...Using birefringent or polarizing medium (e.g., Kerr cell, Pockel's cell, etc.)
768 ....Electron beam addressed
769 ...Acousto-optic
770 ...Deformable medium
771 ....Including solid-state deflection elements (e.g., deformable mirror device (DMD))
772 ....Medium in tape, ribbon, or membrane form
773 ....Fluid medium
774 .....Deformed into diffraction grating (e.g., using electron beam)
775 ....Having significant chemical composition
776 ..Cathode-ray tube image source
777 ...With intensifier
778 ...Plural CRTs
779 ....With optical element
780 .....Beam combining
781 ...With optical element
782 ....Mirror arrangement
783 .....Concave mirror
784 ......With correcting plate
785 ....Adjustable
786 ....With screen or absorption filter
787 ...Cabinet or chassis
788 ....Folding
789 ..Cabinet or chassis
790 .Liquid crystal
791 ..Color TV
792 ..Scanning circuit

VIDEO DISPLAY
.Liquid crystal
..Scanning circuit
793 ...Interlacing
794 ..With cabinet or housing structure
795 .Direct viewed light valve
796 .Vacuum panel
797 .Gas discharge
798 .Array of lamps
799 ..Color TV
800 .Electroluminescent (e.g., scanned matrix, etc.)
801 ..Light emitting diode
802 ...Color TV
803 ..Color TV
804 .With optical fiber device
805 .Cathode-ray tube
806 ..With distortion, alignment or focus
807 ...Color convergence correction
808 ..Color TV
809 ...Separate electron beams in single tube
810 ...One electron beam supplying more than one color
811 ....Beam position indicating
812 .....Horizontal stripes
813 .....Photoelectric sensor
814 .....Secondary emission sensor
815 ....With electron-optical color selection
816 ...With color specific optical device
817 ....Electrochromic device
818 ..Protective device
819 ...Radiation protection for user
820 ...External electric or magnetic effect
821 ...Implosion protection
822 ....Tensioned band
823 ....Protective glass or panel
824 .....Bonded to CRT faceplate
825 ..Support
826 ...CRT having only support at front portion
827 ...CRT position adjustable by user
828 ...Deflection element support
829 ....Yoke
830 .....Supported by CRT neck
831 ......Adjustable
832 ..With optical element
833 ...For line elimination
834 ...Glare reduction
835 ...Filters
836 .Cabinet or chassis
837 ..With vehicle
838 ..Portable
839 ..Modular
840 ..Multiple screens
841 ..Masking
842 ..Light shielding
843 ..Cabinet back
844 MISCELLANEOUS

The following subclasses beginning with the letter E are E-subclasses. Each E-subclass corresponds in scope to a classification in a foreign classification system, for example, the European Classification system (ECLA). The foreign classification equivalent to an E-subclass is identified in the subclass definition. In addition to US documents classified in E-subclasses by US examiners, documents are regularly classified in E-subclasses acccording to the classification practices of any foreign Offices identified in parentheses at the end of the title. For example, "(EPO)" at the end of a title indicates both European and US patent documents, as classified by the EPO, are regularly added to the subclass. E-subclasses may contain subject matter outside the scope of this class. Consult their definitions, or the documents themselves to clarify or interpret titles.

* E17.001 DIAGNOSIS, TESTING OR MEASURING FOR TELEVISION SYSTEMS OR THEIR DETAILS (EPO)
* E17.002 .For television cameras (EPO)
* E17.003 .For digital television systems (EPO)
* E17.004 .For color television signals (EPO)
* E17.005 .For receivers (EPO)
* E17.006 ..Self-contained testing apparatus (EPO)
* E15.001 STEREOSCOPIC COLOR TELEVISION SYSTEMS; DETAILS THEREOF (EPO)
* E13.001 STEREOSCOPIC TELEVISION SYSTEMS; DETAILS THEREOF (EPO)
* E13.002 .Systems where the three-dimensional effect is obtained by means of at least two 2D image signals from different viewpoint locations representing the interocular distance (EPO)
* E13.003 ..Stereoscopic image signal generation (EPO)
* E13.004 ...Using a stereoscopic image camera (EPO)
* E13.005 ....Having a single 2D image pickup sensor (EPO)
* E13.006 .....Using spectral multiplexing, i.e., simultaneously capturing several geometrical viewpoints separated by different spectral characteristics (EPO)
* E13.007 .....Using spatial multiplexing, i.e., simultaneously capturing several geometrical viewpoints on different parts of the image pickup sensor (EPO)
* E13.008 .....Using the relative movement between camera and object (EPO)
* E13.009 .....Using temporal multiplexing, i.e., alternatively capturing several geometrical viewpoints separated in time (EPO)
* E13.01 .....Having a parallax barrier (EPO)

STEREOSCOPIC TELEVISION SYSTEMS; DETAILS THEREOF (EPO)

.Systems where the three-dimensional effect is obtained by means of at least two 2D image signals from different viewpoint locations representing the interocular distance (EPO)

..Stereoscopic image signal generation (EPO)

...Using a stereoscopic image camera (EPO)

....Having a single 2D image pickup sensor (EPO)

* E13.011 .....Having a fly-eye lenticular screen (EPO)

* E13.012 .....Having a lenticular screen (EPO)

* E13.013 .....Having a varifocal lens or mirror (EPO)

* E13.014 ....Having two 2D image pickup sensors representing the interocular distance (EPO)

* E13.015 ....Having more than two 2D image pickup sensors (EPO)

* E13.016 ....Calibration aspects (EPO)

* E13.017 ....Having several image pickup sensors with different characteristics other than location or field of view, e.g., different resolution, color pickup characteristic or additional depth information or, where the image signals of one image pickup sensor are used to control the characteristics of at least one other image pickup sensor (EPO)

* E13.018 ....In combination with an electromagnetic radiation source for Illuminating the subject (EPO)

* E13.019 ...Color aspects (EPO)

* E13.02 ...With monoscopic to stereoscopic image conversion (EPO)

* E13.021 ...For generating stereoscopic image signals corresponding to more than two geometrical viewpoints (EPO)

* E13.022 ...From a 3D object model, e.g., computer generated stereoscopic image signals (EPO)

* E13.023 ....The virtual viewpoint location being selected by the observer, e.g., observer tracking (EPO)

* E13.024 ...For generating monoscopic and stereoscopic images or mixed monoscopic/stereoscopic images, e.g., monoscopic and stereoscopic image generating modes or a stereoscopic image overlay window in a monoscopic image background (EPO)

* E13.025 ...Synchronization or controlling aspects (EPO)

* E13.026 ..Stereoscopic image displaying (EPO)

* E13.027 ...Using an autostereoscopic display, i.e., viewing by the user without the aid of special glasses (EPO)

* E13.028 ....Using a fly-eye lenticular screen (EPO)

* E13.029 ....Using a lenticular screen (EPO)

* E13.03 ....Using a parallax barrier, e.g., spatial light modulator (EPO)

* E13.031 ....Using an array of controllable light sources or a moving aperture or light source (EPO)

* E13.032 ....Using a varifocal lens or mirror (EPO)

* E13.033 ...Color aspects (EPO)

* E13.034 ...Calibration aspects (EPO)

* E13.035 ...Using a digital micro mirror device (DMD) (EPO)

* E13.036 ...For viewing by the user with the aid of special glasses or head mounted displays (HMD), i.e., stereoscopic displaying (EPO)

* E13.037 ....With spectral multiplexing, i.e., simultaneously displaying left and right images separated using glasses with different spectral characteristics, e.g., anaglyph method or Pullfrich method (EPO)

* E13.038 ....With polarization multiplexing, i.e., simultaneously displaying left and right images separated using glasses with different polarizing characteristics (EPO)

* E13.039 ....With spatial multiplexing, i.e., simultaneously displaying left and right images on different parts of the display screen and using glasses to optically recombine the stereoscopic image, e.g., with prisms or mirrors (EPO)

* E13.04 ....With temporal multiplexing, i.e., alternatively displaying left and right images separated in time and using glasses to alternatively block the right and left eye (EPO)

* E13.041 ....With head mounted left-right displays (EPO)

* E13.042 ...Using a half transparent mirror or prism (EPO)

* E13.043 ...For displaying simultaneously more than two geometrical viewpoints, i.e., look-around effect without observer tracking (EPO)

* E13.044 ...For displaying monoscopic and stereoscopic images or mixed monoscopic/stereoscopic images, e.g., monoscopic and stereoscopic image displaying modes or a stereoscopic image overlay window in a monoscopic image background (EPO)

* E13.045 ...Using observer tracking (EPO)

* E13.046 ....For several observers (EPO)

* E13.047 ....For tracking with gaze detection, i.e., detecting the lines of sight of the observers eyes (EPO)

STEREOSCOPIC TELEVISION SYSTEMS; DETAILS THEREOF (EPO)

.Systems where the three-dimensional effect is obtained by means of at least two 2D image signals from different viewpoint locations representing the interocular distance (EPO)

..Stereoscopic image displaying (EPO)

...Using observer tracking (EPO)

* E13.048 ....For tracking with variable interoccular distance or rotational head movements around the vertical axes (EPO)

* E13.049 ....For tracking forward-backward translational head movements, i.e., longitudinal movements (EPO)

* E13.05 ....For tracking left-right translational head movements, i.e., lateral movements (EPO)

* E13.051 ....For tracking rotational head movements in a plane parallel to the screen (EPO)

* E13.052 ....For tracking vertical translational head movements (EPO)

* E13.053 ...Alternating rapidly the location of the left-right image components on the display screen (EPO)

* E13.054 ...Using a volumetric display, i.e., systems where the image is built up from picture elements distributed over a volume (EPO)

* E13.055 ....The picture elements emitting light where a pair of light beams intersect in a transparent material (EPO)

* E13.056 ....The volume being generated by a moving, e.g., vibrating or rotating, surface (EPO)

* E13.057 ....With depth sampling, i.e., the volume being constructed from a stack or sequence of 2D image planes (EPO)

* E13.058 ...Using an image projection screen (EPO)

* E13.059 ...Synchronization or controlling aspects (EPO)

* E13.06 ..Stereoscopic image signal coding, multiplexing, processing, recording or transmission (EPO)

* E13.061 ...Color aspects (EPO)

* E13.062 ...Coding or decoding stereoscopic image signals (EPO)

* E13.063 ...Mixing stereoscopic image signals (EPO)

* E13.064 ...Processing stereoscopic image signals (EPO)

* E13.065 ....Transformation of stereoscopic image signals corresponding to virtual viewpoints, e.g., spatial image interpolation (EPO)

* E13.066 .....The virtual viewpoint location being selected by the observer, e.g., observer tracking with look around effect (EPO)

* E13.067 ....Improving the 3D impression of a displayed stereoscopic image, e.g., with filtering or addition of monoscopic depth cues (EPO)

* E13.068 ....Format conversion of stereoscopic images, e.g., frame-rate, size, (EPO)

* E13.069 ....Equalizing the characteristics of different image components in stereoscopic images, e.g., average brightnesss or color balance (EPO)

* E13.07 ...Switching stereoscopic image signals (EPO)

* E13.071 ...Transmission of stereoscopic image signals (EPO)

* E13.072 ...Multiplexing or demultiplexing different image signal components in stereoscopic image signals (EPO)

* E13.073 ...Synchronization or controlling aspects (EPO)

* E13.074 .Picture signal generators (EPO)

* E13.075 .Picture reproducers (EPO)

* E11.001 COLOR TELEVISION SYSTEMS (EPO)

* E11.002 .High definition systems (EPO)

* E11.003 ..Involving two-channel transmission (EPO)

* E11.004 ..Involving bandwidth reduction, e.g., subsampling (EPO)

* E11.005 ..With transmission of the extra information by means of quadrature modulation (EPO)

* E11.006 .With bandwidth reduction (EPO)

* E11.007 .Transmission systems characterized by the manner in which the individual color picture signal components are combined (EPO)

* E11.008 ..Using sequential signals only (EPO)

* E11.009 ...In which color signals are inserted in the blanking interval of brightness signal (EPO)

* E11.01 ..Using simultaneous signals only (EPO)

* E11.011 ...In which one signal, modulated in phase and amplitude, conveys color information and a second signal conveys brightness information, e.g., NTSC-system (EPO)

* E11.012 ....The chrominance signal alternating in phase, e.g., PAL-system (EPO)

* E11.013 .....A resolution-increasing signal being multiplexed to the PAL-system signal, e.g., PAL-PLUS-system (EPO)

* E11.014 .....Encoding means therefor (EPO)

* E11.015 .....Decoding means therefor (EPO)

* E11.016 ....Encoding means therefor (EPO)

* E11.017 ....Decoding means therefor (EPO)

* E11.018 ..Using simultaneous and sequential signals, e.g., SECAM-system (EPO)

* E11.019 ...Encoding means therefor (EPO)

* E11.02 ...Decoding means therefor (EPO)

COLOR TELEVISION SYSTEMS (EPO)
.Transmission systems characterized by the manner in which the individual color picture signal components are combined (EPO)
* E11.021 ..Conversion of the manner in which the individual color picture signal components are combined, e.g., conversion of color television standards (EPO)
* E11.022 ...In which simultaneous signals are converted into sequential signals or vice versa (EPO)
* E9.001 DETAILS OF COLOR TELEVISION SYSTEMS (EPO)
* E9.002 .Picture signal generators (EPO)
* E9.003 ..With one pick-up device only (EPO)
* E9.004 ...Whereby the color signals are characterized by their phase (EPO)
* E9.005 ...Whereby the color signals are characterized by their frequency (EPO)
* E9.006 ..With more than one pick-up device (EPO)
* E9.007 ...Systems for avoiding or correcting misregistration of video signals (EPO)
* E9.008 ...Optical arrangements associated therewith, e.g., for beam-splitting, for color correction (EPO)
* E9.009 ..Scanning of color motion picture films, e.g., for telecine (EPO)
* E9.01 ..Using solid-state devices (EPO)
* E9.011 ..Using optical-mechanical scanning means only (EPO)
* E9.012 .Picture reproducers (EPO)
* E9.013 ..Using optical-mechanical scanning means only (EPO)
* E9.014 ..Using cathode ray tubes (EPO)
* E9.015 ...With variable depth of penetration of electron beam into the luminescent layer, e.g., penetrons (EPO)
* E9.016 ...Using separate electron beams for the primary color signals (EPO)
* E9.017 ....With more than one beam in a tube (EPO)
* E9.018 ...Using the same beam for more than one primary color information (EPO)
* E9.019 ....Using means, integral with, or external to, the tube, for producing signal indicating instantaneous beam position (EPO)
* E9.02 ....Using electron-optical color selection means, e.g., line grid, deflection means in or near the gun or near the phosphor screen (EPO)
* E9.021 ...Arrangements for convergence or focusing (EPO)
* E9.022 ....Using quadrupole lenses (EPO)
* E9.023 ...Using demagnetization or compensation of external magnetic fields (EPO)
* E9.024 ..Using solid-state color display devices (EPO)
* E9.025 ..Projection devices for color picture display (EPO)
* E9.026 ...Using laser beams scanning the display screen (EPO)
* E9.027 ...Using light modulating optical valves (EPO)
* E9.028 .Conversion of monochrome picture signals to color picture signals for color picture display (EPO)
* E9.029 .Color synchronization (EPO)
* E9.03 ..Generation or recovery of color sub-carriers (EPO)
* E9.031 ..Generation of color burst signals; Insertion of color burst signals in color picture signals or separation of color burst signals from color picture signals
* E9.032 ..Synchronization of the PAL-switch (EPO)
* E9.033 ..For sequential signals (EPO)
* E9.034 ..For mutually locking different synchronization sources (EPO)
* E9.035 .Circuits for processing the brightness signal and the chrominance signal relative to each other, e.g., adjusting the phase of the brightness signal relative to the color signal, correcting differential gain or differential phase
* E9.036 ..For separating the brightness signal or the chrominance signal from the color television signal, e.g., using comb filter (EPO)
* E9.037 .Circuits for processing color signals (EPO)
* E9.038 ..Multi-standard receivers (EPO)
* E9.039 ..Multi-purpose receivers, e.g., for auxiliary information (EPO)
* E9.04 ..Hue control means, e.g., flesh tone control (EPO)
* E9.041 ..Beam current control means (EPO)
* E9.042 ..For image enhancement, e.g., vertical detail restoration, cross-color elimination, contour correction, chrominance trapping filters (EPO)
* E9.043 ..I.F amplifiers (EPO)
* E9.044 ..Video amplifiers (EPO)
* E9.045 ..For synchronous modulators (EPO)
* E9.046 ..For synchronous demodulators (EPO)
* E9.047 ..For matrixing (EPO)
* E9.048 ..For color killing (EPO)
* E9.049 ...Combined with color gain control (EPO)
* E9.05 ..For reinsertion of dc and slowly varying components of color signal (EPO)
* E9.051 ..Color balance circuits, e.g., white balance circuits, color temperature control (EPO)
* E9.052 ...For picture signal generators (EPO)
* E9.053 ..For controlling the amplitude of color signals, e.g., automatic chroma control circuits (EPO)

DETAILS OF COLOR TELEVISION SYSTEMS (EPO)

.Circuits for processing color signals (EPO)

..For controlling the amplitude of color signals, e.g., automatic chroma control circuits (EPO)

* E9.054 ...For modifying the color signals by gamma correction (EPO)

* E9.055 ..For obtaining special effects (EPO)

* E9.056 ...Chroma key (EPO)

* E9.057 ...For mixing of color signals (EPO)

* E7.001 TELEVISION SYSTEMS (EPO)

* E7.002 .Systems with supplementary picture signal insertion during a portion of the active part of a television signal, e.g., during top and bottom lines in a HDTV letter-box system (EPO)

* E7.003 .Conversion of standards (EPO)

* E7.004 .High-definition television systems (EPO)

* E7.005 ..Using spatial or temporal subsampling (EPO)

* E7.006 ...Using pixel blocks (EPO)

* E7.007 ....With motion estimation, e.g., involving the use of motion vectors (EPO)

* E7.008 ..Involving the resampling of the incoming video signal (EPO)

* E7.009 ..Using a storage device with different write and read speed (EPO)

* E7.01 ...Using beam gun storage (EPO)

* E7.011 ...Using magnetic recording (EPO)

* E7.012 ..Involving interpolation processes (EPO)

* E7.013 ...Involving the use of motion vectors (EPO)

* E7.014 ...Dependent on presence/absence of motion, e.g., of motion zones (EPO)

* E7.015 ..One of the standards corresponding to a cinematograph film standard (EPO)

* E7.016 ..One of the standards being a high definition standard (EPO)

* E7.017 .Systems for the transmission of digital nonpicture data, e.g., of text during the active part of a television frame (EPO)

* E7.018 ..Display systems therefor (EPO)

* E7.019 ..Subscription systems therefor (EPO)

* E7.02 ..Circuits for the digital non-picture data signal, e.g., for slicing of the data signal, for regeneration of the data-clock signal, for error detection or correction of the data signal (EPO)

* E7.021 ...For regeneration of the clock signal (EPO)

* E7.022 ...For discrimination of the binary level of the digital data, e.g., amplitude slicers (EPO)

* E7.023 ...For error detection or correction (EPO)

* E7.024 .Systems for the simultaneous or sequential transmission of more than one television signal, e.g., additional information signals, the signals occupying wholly or partially the same frequency band (EPO)

* E7.025 ..The additional information signals being transmitted by means of a subcarrier (EPO)

* E7.026 ..With signal insertion during the vertical and the horizontal blanking interval (EPO)

* E7.027 ..With signal insertion during the horizontal blanking interval (EPO)

* E7.028 ...The inserted signal being digital (EPO)

* E7.029 ....The signal being time-compressed before its insertion and subsequently decompressed at reception (EPO)

* E7.03 ..With signal insertion during the vertical blanking interval (EPO)

* E7.031 ...The inserted signal being digital (EPO)

* E7.032 ....The signal being time-compressed before its insertion and subsequently decompressed at reception (EPO)

* E7.033 ....For the transmission of character code signals, e.g., for teletext (EPO)

* E7.034 ....For the transmission of additional display-information, e.g., menu for program or channel selection (EPO)

* E7.035 .....For the transmission of subtitles (EPO)

* E7.036 ....For the transmission of program or channel identifying signals (EPO)

* E7.037 ....Subscription systems therefor (EPO)

* E7.038 ..Using frequency interleaving, e.g., with precision offset (EPO)

* E7.039 ..The signals being two or more video signals (EPO)

* E7.04 .Systems for the transmission of one television signal, i.e., both picture and sound, by a single carrier (EPO)

* E7.041 ..The carrier being frequency modulated (EPO)

* E7.042 .Systems for the simultaneous transmission of one television signal, i.e., both picture and sound, by more than one carrier (EPO)

* E7.043 ..Simultaneous transmission of separate parts of one picture (EPO)

* E7.044 ..The carriers being allocated to more than one television channel (EPO)

* E7.045 .Systems in which the television signal is transmitted via one channel or a plurality of parallel channels, the bandwidth of each channel being less than the bandwidth of the television signal (EPO)

TELEVISION SYSTEMS (EPO)

.Systems in which the television signal is transmitted via one channel or a plurality of parallel channels, the bandwidth of each channel being less than the bandwidth of the television signal (EPO)

* E7.046 ..Involving expansion and subsequent compression of a signal segment, e.g., a frame, a line (EPO)

* E7.047 ...The signal segment being a picture element (EPO)

* E7.048 ..Systems in which different parts of the picture signal frequency band are individually processed, e.g., suppressed, transposed (EPO)

* E7.049 .Adaptations for transmission by electric cable (EPO)

* E7.05 ..For domestic distribution (EPO)

* E7.051 ..The cable being constituted by a pair of wires (EPO)

* E7.052 ..Circuits therefor, e.g., noise reducers, equalizers, amplifiers (EPO)

* E7.053 ...Switchers or splitters (EPO)

* E7.054 .Secrecy systems; Subscription systems (EPO)

* E7.055 ..Systems rendering the television signal unintelligible and subsequently intelligible (EPO)

* E7.056 ...Providing digital key or authorization information for generation or regeneration of the scrambling sequence (EPO)

* E7.057 ...Systems operating in the time domain of the television signal (EPO)

* E7.058 ....By displacing synchronization signals relative to active picture signals or vice versa (EPO)

* E7.059 ....By changing or reversing the order of active picture signal portions (EPO)

* E7.06 ..Authorizing the user terminal, e.g., by paying; Registering the use of a subscription channel, e.g., billing (EPO)

* E7.061 ...By receiver means only (EPO)

* E7.062 ....Coin-freed apparatus (EPO)

* E7.063 ...Centralized control of user terminal; Registering at central (EPO)

* E7.064 ..Constructional details of the subscriber equipment (EPO)

* E7.065 ..Passage/non-passage of the television signal, e.g., jamming, band suppression (EPO)

* E7.066 ...Systems operating in the amplitude domain of the television signal (EPO)

* E7.067 ....By modifying synchronization signals (EPO)

* E7.068 ....By inverting the polarity of active picture signal portions (EPO)

* E7.069 ..With two-way working, e.g., subscriber sending a program selection signal (EPO)

* E7.07 ...Transmission or handling of upstream communications (EPO)

* E7.071 ....Direct or substantially direct transmission and handling of requests (EPO)

* E7.072 ....With deferred transmission or handling of upstream communications (EPO)

* E7.073 ....Handling of requests in head-ends (EPO)

* E7.074 ...Control of the passage of the selected program (EPO)

* E7.075 ....In an intermediate station common to a plurality of user terminals (EPO)

* E7.076 ....At or near the user terminal (EPO)

* E7.077 .Systems for two-way working (EPO)

* E7.078 ..Between two video terminals, e.g., videophone (EPO)

* E7.079 ...Constructional details of the terminal equipment, e.g., arrangements of the camera and the display (EPO)

* E7.08 ....Camera and display on the same optical axis, e.g., optically multiplexing the camera and display for eye to eye contact (EPO)

* E7.081 ...Communication arrangements, e.g., identifying the communication as a video-communication, intermediate storage of the signals (EPO)

* E7.082 ...Interfacing a video terminal to a particular transmission medium, e.g., ISDN (EPO)

* E7.083 ..Conference systems (EPO)

* E7.084 ...Multipoint control units therefor (EPO)

* E7.085 .Closed circuit television systems, i.e., systems in which the signal is not broadcast (EPO)

* E7.086 ..For receiving images from a plurality of remote sources (EPO)

* E7.087 ..For receiving images from a single remote source (EPO)

* E7.088 ...From a mobile camera, e.g., for remote control (EPO)

* E7.089 ...Video door telephones (EPO)

* E7.09 ..Capturing isolated or intermittent images triggered by the occurrence of a predetermined event, e.g., an object reaching a predetermined position (EPO)

* E7.091 .Special television systems not provided for by E7.002 to E7.085 (EPO)

* E7.092 ..Using at least one opto-electrical conversion device (EPO)

* E7.093 .Adaptations for transmission via a GHz frequency band, e.g., via satellite (EPO)

* E7.094 .Adaptations for optical transmission (EPO)

* E3.001 SCANNING DETAILS OF TELEVISION SYSTEMS (EPO)
* E3.002 .Scanning of motion picture films, e.g., for telecine (EPO)
* E3.003 ..With continuously moving film (EPO)
* E3.004 ..With intermittently moving film (EPO)
* E3.005 ...With film moving only during the field blanking interval (EPO)
* E3.006 .By optical-mechanical means only (EPO)
* E3.007 ..Having a moving aperture (EPO)
* E3.008 ..Having a moving lens or other refractor (EPO)
* E3.009 ..Having a moving reflector (EPO)
* E3.01 ...For electromagnetic radiation in the invisible region, e.g., infra-red (EPO)
* E3.011 .By means not exclusively optical-mechanical (EPO)
* E3.012 ..By switched stationary formation of lamps, photocells or light relays (EPO)
* E3.013 ...Using cathode rays, e.g., multivision (EPO)
* E3.014 ...Using gas discharges, e.g., plasma (EPO)
* E3.015 ...Using liquid crystals (EPO)
* E3.016 ..By means of electrically scanned solid-state devices (EPO)
* E3.017 ...For picture signal generation (EPO)
* E3.018 ....Control of the image-sensor operation, e.g., image processing within the image-sensor (EPO)
* E3.019 .....For variable integration time (EPO)
* E3.02 .....For selective scanning, e.g., windowing, zooming (EPO)
* E3.021 .....For disturbance correction or prevention within the image-sensor, e.g., biasing, blooming, smearing (EPO)
* E3.022 ....Picture signal readout register, e.g., shift registers, interline shift registers (EPO)
* E3.023 ....With charge transfer within the image-sensor, e.g., time delay and integration (EPO)
* E3.024 .....Using frame-interline transfer (EPO)
* E3.025 .....Using interline transfer (EPO)
* E3.026 .....Using frame transfer (EPO)
* E3.027 ....Using linear image-sensor (EPO)
* E3.028 ....With addressing of the image-sensor elements (EPO)
* E3.029 .....For MOS image-sensors, e.g., MOS-CCD (EPO)
* E3.03 .....Using charge injection within the image-sensor (EPO)
* E3.031 ....The image being sequentially picked-up by one device at different imaging positions, e.g., by shifting the image-sensor (EPO)
* E3.032 ....The image being simultaneously picked-up by more than one device, e.g., the scene being partitioned into subimages (EPO)
* E3.033 ..By deflecting electron beam in cathode-ray tube (EPO)
* E3.034 ...Generation of supply voltages, in combination with electron beam deflecting (EPO)
* E3.035 ...Maintaining dc voltage constant (EPO)
* E3.036 ....Using regulation in parallel (EPO)
* E3.037 ....Using regulation in series (EPO)
* E3.038 ....Arrangements or assemblies in supply circuits for the purpose of withstanding high voltages (EPO)
* E3.039 ...Prevention of damage to cathode-ray tubes in the event of failure of scanning (EPO)
* E3.04 ...*Circuits for controlling dimension,* shape or centering of picture on screen (EPO)
* E3.041 ....Controlling dimensions (EPO)
* E3.042 ....Centering (EPO)
* E3.043 ....Distortion correction, e.g., for pincushion distortion correction, S-correction (EPO)
* E3.044 .....Using active elements (EPO)
* E3.045 ......With calculating means (EPO)
* E3.046 .....Using passive elements, e.g., diodes (EPO)
* E3.047 ...Blanking circuits (EPO)
* E3.048 ...Modifications of scanning arrangements to improve focusing (EPO)
* E3.049 ...Circuits special to multi-standard receivers (EPO)
* E3.05 ..Producing multiple scanning, i.e., using more than one spot at the same time (EPO)
* E3.051 ..Otherwise than with constant velocity or otherwise than in pattern formed by unidirectional, straight, substantially horizontal or vertical lines (EPO)
* E3.052 ...Velocity varied in dependence upon picture information (EPO)
* E3.053 ...Elemental scanning area oscillated rapidly in direction transverse to main scanning direction (EPO)
* E5.001 DETAILS OF TELEVISION SYSTEMS (EPO)
* E5.002 .Multimedia set-top circuitry for digital video services (EPO)
* E5.003 ..Downstream channel decoding therefor (EPO)
* E5.004 ..Involving conditional access (EPO)
* E5.005 ..Transport demultiplexing therefor (EPO)
* E5.006 ..Operative control therefor (EPO)
* E5.007 ..Involving digital storage medium interfacing (EPO)
* E5.008 .Multimedia server circuitry for digital video services (EPO)
* E5.009 .Synchronizing (EPO)

DETAILS OF TELEVISION SYSTEMS (EPO)

.Synchronizing (EPO)

* E5.01 ..Synchronizing circuits with arrangements for extending range of synchronization, e.g., by using switching between several time constants (EPO)

* E5.011 ..Generation of synchronizing signals (EPO)

* E5.012 ...Arrangements or circuits at the transmitter end (EPO)

* E5.013 ....For mixing the synchronizing signals with the picture signal or mutually (EPO)

* E5.014 ....For mutually locking plural sources of synchronizing signals, e.g., studios or relay stations (EPO)

* E5.015 .....For distributing synchronization pulses to different TV cameras (EPO)

* E5.016 .....Using digital storage buffer techniques (EPO)

* E5.017 ..Separation of synchronizing signals from picture signals (EPO)

* E5.018 ...Separation of line synchronizing signal from frame synchronizing signal (EPO)

* E5.019 ..Devices in which the synchronizing signals are only operative if a phase difference occurs between synchronizing and synchronized scanning devices, e.g., flywheel synchronizing (EPO)

* E5.02 ...Whereby the synchronization signal directly commands a frequency generator (EPO)

* E5.021 ...Whereby the synchronization signal indirectly commands a frequency generator (EPO)

* E5.022 .Studio circuitry; Studio devices; Studio equipment (EPO)

* E5.023 ..Prompting (EPO)

* E5.024 ..Television cameras (EPO)

* E5.025 ...Constructional details (EPO)

* E5.026 ....Housings (EPO)

* E5.027 ....Mounting of pick-up device, deviation or focusing coils (EPO)

* E5.028 ....Mounting of optical parts, e.g., lenses, shutters, filters (EPO)

* E5.029 ...Provided with illuminating means (EPO)

* E5.03 ...Means for changing the camera's field of view without moving the camera body, e.g., nutating or panning optics or image-sensors (EPO)

* E5.031 ...Circuit details for pick-up tubes (EPO)

* E5.032 ....Beam current control (EPO)

* E5.033 .....During retrace periods, e.g., circuits for ACT tubes, leg suppression (EPO)

* E5.034 ...Circuitry for compensating for variation in the brightness of the object (EPO)

* E5.035 ....Circuitry for evaluating the brightness variations of the object (EPO)

* E5.036 ....Combination of two or more compensation controls (EPO)

* E5.037 ....By influencing the exposure time, e.g., shutter (EPO)

* E5.038 ....By influencing the scene brightness using illuminating means (EPO)

* E5.039 ....By influencing at least one of the pick-up tube voltages (EPO)

* E5.04 ....By influencing the optical part of the camera (EPO)

* E5.041 ....By influencing the picture signal (EPO)

* E5.042 ...Devices for controlling television cameras, e.g., remote control (EPO)

* E5.043 ....Remote control signaling for television cameras or for parts of television camera, e.g., between main body and part of camera (EPO)

* E5.044 .....For interchangeable parts of television camera (EPO)

* E5.045 ....Focusing (EPO)

* E5.046 ....For stable pick-up of the scene in spite of camera body vibration (EPO)

* E5.047 ....View-finder (EPO)

* E5.048 ...Arrangements of television cameras (EPO)

* E5.049 ..Picture signal generating by scanning motion picture films or slide opaques, e.g., for telecine (EPO)

* E5.05 ..Picture signal generators using flying-spot scanners (EPO)

* E5.051 ..Studio circuits, e.g., for mixing, switching-over, change of character of image, other special effects (EPO)

* E5.052 ...Signal amplitude transition in the zone between image portions, e.g., soft edges (EPO)

* E5.053 ...For obtaining an image which is composed of whole input images, e.g., splitscreen (EPO)

* E5.054 ...For obtaining an image which is composed of images from a temporal image sequence, e.g., for a stroboscopic effect (EPO)

* E5.055 ...Alteration of picture size, shape, position or orientation, e.g., zooming, rotation, rolling, perspective, translation (EPO)

* E5.056 ...Mixing (EPO)

* E5.057 ...Signal distribution or switching (EPO)

* E5.058 ...Means for inserting a foreground image in a background image, i.e., inlay, outlay (EPO)

* E5.059 ....Generation of keying signals (EPO)

* E5.06 ...Subtitling (EPO)

* E5.061 ..Mobile studios (EPO)

DETAILS OF TELEVISION SYSTEMS (EPO)

* E5.062 .Picture signal circuitry for video frequency region (EPO)
* E5.063 ..Beam current control means (EPO)
* E5.064 ..Edging; Contouring (EPO)
* E5.065 ..Movement detection (EPO)
* E5.066 ...Movement estimation (EPO)
* E5.067 ..Scene change detection (EPO)
* E5.068 ..Video amplifiers (EPO)
* E5.069 ..Circuitry for reinsertion of dc and slowly varying components of signal; Circuitry for preservation of black or white level (EPO)
* E5.07 ...To maintain the black level constant (EPO)
* E5.071 ...By means of "clamp" circuit operated by switching circuit (EPO)
* E5.072 ....For the black level (EPO)
* E5.073 ..Circuitry for controlling amplitude response (EPO)
* E5.074 ...Gamma control (EPO)
* E5.075 ...For correcting amplitude versus frequency characteristic (EPO)
* E5.076 ....For compensating for attenuation of high frequency components, e.g., crispening, aperture distortion correction (EPO)
* E5.077 ..Circuitry for suppressing or minimizing disturbance, e.g., moire, halo (EPO)
* E5.078 ...In picture signal generation (EPO)
* E5.079 ....In solid-state picture signal generation (EPO)
* E5.08 .....Suppression of excedentary charges, e.g., blooming, smearing (EPO)
* E5.081 .....Correction or equalization of amplitude response, e.g., dark current, blemishes, non-uniformity (EPO)
* E5.082 ......By initial calibration, e.g., with memory means (EPO)
* E5.083 ...Circuitry for suppressing or minimizing impulsive noise (EPO)
* E5.084 ...Ghost signal cancellation (EPO)
* E5.085 .Transforming light or analogous information into electric information (EPO)
* E5.086 ..Transforming X-rays (EPO)
* E5.087 ...With video transmission of fluoroscopic images (EPO)
* E5.088 ....Image enhancement, e.g., by subtraction techniques using polyenergetic X-rays (EPO)
* E5.089 ...Using subtraction imaging techniques (EPO)
* E5.09 ..Transforming infra-red radiation (EPO)
* E5.091 ..Using electrically scanned solid-state devices (EPO)
* E5.092 ...With digital output of the sensor cell, e.g., dynamic RAM image sensors (EPO)
* E5.093 .Transmitter circuitry (EPO)
* E5.094 ..Modulation circuits (EPO)
* E5.095 ..For transmitting at will black-and-white or color signals (EPO)
* E5.096 .Receiver circuitry (EPO)
* E5.097 ..Tuning indicators; Automatic tuning control (EPO)
* E5.098 ...Invisible or silent tuning (EPO)
* E5.099 ..For displaying additional information (EPO)
* E5.1 ...Circuit details of the additional information generator, e.g., details of the character or graphics signal generator, overlay mixing circuits (EPO)
* E5.101 ...Multiplexed with a digital video signal (EPO)
* E5.102 ...For displaying or controlling a single function of one single apparatus, e.g., TV receiver or VCR (EPO)
* E5.103 ...The additional information being controlled by a remote control apparatus (EPO)
* E5.104 ...The additional information being displayed in a separate window, e.g., by using splitscreen display (EPO)
* E5.105 ...Menu-type displays (EPO)
* E5.106 ..I.F. amplifier-circuits as far as concerned for B&W-TV (EPO)
* E5.107 ..For frame-grabbing (EPO)
* E5.108 ..For the reception of a digital modulated video signal (EPO)
* E5.109 ..For progressive scanning (EPO)
* E5.11 ..For flicker reduction (EPO)
* E5.111 ..For displaying different aspect ratios (EPO)
* E5.112 ...Picture in picture (EPO)
* E5.113 ..Demodulation-circuits (EPO)
* E5.114 ..For receiving on more than one standard at will (EPO)
* E5.115 ..Automatic gain control (EPO)
* E5.116 ...Keyed automatic gain control (EPO)
* E5.117 ...For positively-modulated picture signals (EPO)
* E5.118 ...For negatively-modulated picture signals (EPO)
* E5.119 ..Control of contrast or brightness (EPO)
* E5.12 ...In dependence upon ambient light (EPO)
* E5.121 ...In dependence upon beam current of cathode ray tube (EPO)
* E5.122 ..For the sound signals (EPO)
* E5.123 ...For digital sound signals (EPO)
* E5.124 ....According to the NICAM system (EPO)
* E5.125 ...For more than one sound signal, e.g., stereo, multilanguages (EPO)
* E5.126 ...Intercarrier circuits, i.e., heterodyning sound and vision carriers (EPO)
* E5.127 .Generation or supply of power specially adapted for television receivers (EPO)

DETAILS OF TELEVISION SYSTEMS (EPO)

* E5.128 .Constructional details of receivers, e.g., cabinets, dust covers (EPO)
* E5.129 ..Mounting of picture tube on chassis or in housing (EPO)
* E5.13 ..Disposition of sound reproducers (EPO)
* E5.131 ..Holding-devices for protective discs or for picture masks (EPO)
* E5.132 ..Construction or mounting of chassis, e.g., for varying the elevation of the tube (EPO)
* E5.133 .Transforming electric information into light information (EPO)
* E5.134 ..Circuit details for cathode-ray display tubes (EPO)
* E5.135 ..Circuit details for electroluminescent devices (EPO)
* E5.136 .Modifying the appearance of television pictures by optical filters or diffusing screens (EPO)
* E5.137 .Projection arrangements for image reproduction, e.g., using eidophor (EPO)
* E5.138 ..Direct viewing projectors, e.g., an image displayed on a video CRT or LCD display being projected on a screen (EPO)
* E5.139 ..Involving the use of a spatial light modulator, e.g., a light valve, controlled by a video signal (EPO)
* E5.14 ...The modulator being a dielectric deformable layer controlled by an electron beam, e.g., eidophor projector (EPO)
* E5.141 ...The modulator being an array of liquid crystal cells (EPO)
* E5.142 ...The modulator being an array of deformable mirrors, e.g., digital micromirror device (DMD)(EPO)
* E5.143 ..Constructional details of television projection apparatus (EPO)
* E5.144 ...For multi-screen projection (EPO)
* E5.145 ...Of head mounted projectors (EPO)

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CROSS-REFERENCE ART COLLECTIONS

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901 HIGH SPEED TELEVISION SYSTEM
902 PHOTOCHROMIC
903 INCLUDING SIDE PANEL INFORMATION IN SINGLE CHANNEL
904 SEPARATION OR JOINING OF SIDE AND CENTER PANELS
905 REPRODUCTION OF A COLOR FIELD OR FRAME
908 CONVERTIBLE CIRCUITS (E.G., Y/C SEPARATION OR NOISE REDUCTION)
909 NOISE RESPONSIVE SIGNAL PROCESSING
910 FLICKER REDUCTION
911 LINE DOUBLER ADAPTED FOR REPRODUCING PROGRAM ORIGINALLY FROM FILM (E.G., 24 FRAME PER SECOND)
912 DIFFERENTIAL AMPLITUDE CONSIDERATION (E.G., AMPLITUDE VS. FREQUENCY)
913 LETTERBOX (E.G., DISPLAY 16:9 ASPECT RATIO IMAGE ON 4:3 SCREEN)
914 DELAY FOR EQUALIZATION

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FOREIGN ART COLLECTIONS

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FOR 000 CLASS-RELATED FOREIGN DOCUMENTS

Any foreign patents or non-patent literature from subclasses that have been reclassified have been transferred directly to FOR Collections listed below. These Collections contain ONLY foreign patents or non-patent literature. The parenthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived.

FOR 100 BANDWIDTH REDUCTION SYSTEM (348/384)
FOR 101 .Plural video programs in single channel (348/385)
FOR 102 ..Color television (348/386)
FOR 103 ..Bit-rate reduction (348/387)
FOR 104 .Multiple channel (e.g., plural carrier) (348/388)
FOR 105 ..Including one conventional or compatible channel (e.g., two channel NTSC systems) (348/389)
FOR 106 .Bit-rate reduction (348/390)
FOR 107 ..Specified color signal (348/391)
FOR 108 ...Sub-Nyquist sampling (348/392)
FOR 109 ...Direct coding of color composite signal (348/393)
FOR 110 ....Predictive coding (348/394)
FOR 111 ....Transform coding (348/395)
FOR 112 ...Including luminance signal (348/396)
FOR 113 ..Using separate coders for different picture features (e.g., highs, lows) (348/397)
FOR 114 ...Sub-band encoding (e.g., low horizontal/low vertical frequency, low horizontal/high vertical frequency) (348/398)
FOR 115 ..Picture feature dependent sampling rate or sample selection (348/399)
FOR 116 ..Involving hybrid transform and difference coding (348/400)
FOR 117 ...With prior difference coding (348/401)
FOR 118 ....Including motion vector (348/402)
FOR 119 ..Involving transform coding (348/403)
FOR 120 ...Adaptive (348/404)
FOR 121 ....Quantizer (348/405)
FOR 122 ....Normalizer (348/406)
FOR 123 ....Motion (348/407)
FOR 124 ...Transformed sample selection (e.g., hierarchical sample selection) (348/408)
FOR 125 ..Involving difference transmission (348/409)
FOR 126 ...Involving both PCM and DPCM encoding (348/410)
FOR 127 ...Plural predictors (348/411)

BANDWIDTH REDUCTION SYSTEM (348/384)
.Bit-rate reduction (348/390)
..Involving difference transmission (348/409)
...Plural predictors (348/411)
FOR 128 ....Including temporal predictor (e.g., frame difference) (348/412)
FOR 129 .....Including motion vector (348/413)
FOR 130 ....Involving vector quantization (348/414)
FOR 131 ...Including temporal prediction (e.g., frame difference) (348/415)
FOR 132 ....Including motion vector (348/416)
FOR 133 ....Involving vector quantization (348/417)
FOR 134 ...Involving vector quantization (348/418)
FOR 135 ...Coding element controlled by buffer fullness (e.g., adaptive quantizer) (348/419)
FOR 136 ..Involving block coding (348/420)
FOR 137 ...PCM represents minimum, maximum, or average of block (348/421)
FOR 138 ..Involving vector quantization (348/422)
FOR 139 ..Arrangements for multiplexing one video signal, one or more audio signals, and a synchronizing signal (348/423)
FOR 140 ..Sub-Nyquist sampling (348/424)
FOR 141 ...Adaptive (348/425)
FOR 142 ..Associated signal processing (348/845)
FOR 143 ...Involving error detection or correction (348/845.1)
FOR 144 ...Involving signal formatting (348/845.2)
FOR 145 ...Involving synchronization (348/845.3)
FOR 146 .Format type (e.g., HDTV or EDTV) (348/426)
FOR 147 ..Including frequency folding (e.g., subsampling) (348/427)
FOR 148 ...Spotwobble (e.g., pixels from plural lines form single transmitted line) (348/428)
FOR 149 ...Including video related information (e.g., digitally assisted television) (348/429)
FOR 150 ...Using two or more frames (348/430)
FOR 151 ....Motion adaptive (348/431)
FOR 152 ..Added video information in standard channel format (e.g., compatible EDTV) (348/432)
FOR 153 ...Including additional modulation of picture carrier (e.g., quadrature) (348/433)
FOR 154 ...Including information in sync, blanking, or overscan (348/434)
FOR 155 ....During vertical blanking interval (348/435)
FOR 156 ...Including the use of a subcarrier (348/436)
FOR 157 ..Individual processing of different parts of image frequency band (e.g., sum and difference, high band/low band) (348/437)
FOR 158 .Individual processing of different parts of image frequency band (e.g., sum and difference, high band/low band) (438/438)
FOR 159 .Frame field or line dropping followed by time expansion and time compression (348/439)
FOR 160 .Scan rate variation (348/440)
FOR 161 .With electronic viewfinder or display monitor (348/333)
FOR 162 ..With indicium (348/334)
FOR 163 USE SURVEY AND ACCOUNTING (348/1)
FOR 164 .Monitoring of physical reaction of viewer (348/2)
FOR 165 .With billing (348/3)
FOR 166 .Monitoring of synchronization or blanking pulse (e.g., horizontal or vertical pulse signal) (348/4)
FOR 167 .With video cassette recorder (VCR) (348/5)
FOR 168 USE OR ACCESS BLOCKING (E.G., LOCKING SWITCH) (348/5.5)
FOR 169 WIRED BROADCAST (E.G., CABLE) (348/6)
FOR 170 .Broadcast on demand (348/7)
FOR 171 .Local distribution (e.g., hotel, hospital, vehicle, etc.) (348/8)
FOR 172 .Controlled signal substitution (e.g., emergency warning, local preemption, etc.) (348/9)
FOR 173 .With subscriber terminal details (348/10)
FOR 174 ..For frequency conversion (348/11)
FOR 175 .Two-way (348/12)
FOR 176 TWO-WAY (E.G., INTERACTIVE) (348/13)
FOR 177 .With voice capability (e.g., videophone) (348/14)
FOR 178 ..Conferencing (348/15)
FOR 179 ..Switching (348/16)
FOR 180 ..Transmission scheme (348/17)
FOR 181 ...Still frame (i.e., freeze frame) (348/18)
FOR 182 ...Field or frame difference (e.g., moving frame) (348/19)
FOR 183 ..User positioning (e.g., parallax) (348/20)
FOR 184 CAMERA, SYSTEM AND DETAIL (348/207)
FOR 185 .Camera image stabilization (348/208)
FOR 186 .With flying spot scanner (348/209)
FOR 187 ..For color scanning (348/210)
FOR 188 .Remote control (348/211)
FOR 189 ..By multiplexed control signals (e.g., duplexing, etc.) (348/212)
FOR 190 ..Preprogrammed or stored control instructions (348/213)
FOR 191 ..Body movement actuation (348/214)
FOR 192 .With streak device (348/215)
FOR 193 .Low light level (348/216)
FOR 194 ..With image intensifier (348/217)

CAMERA, SYSTEM AND DETAIL (348/207)

FOR 195 .Unitary image formed by compiling sub-areas of same scene (e.g., array of cameras) (348/218)

FOR 196 .Swing driven

FOR 197 .Still and motion modes of operation (348/220)

FOR 198 ..Exposure control (348/221)

FOR 199 .Combined image signal generator and general image signal processing (348/222)

FOR 200 ..Color balance (e.g., white balance) (348/223)

FOR 201 ...Dependent upon operation or characteristic of iris, flash, lens, or filter (348/224)

FOR 202 ...With means for preventing colored object from effecting color balance (348/225)

FOR 203 ...Including flicker detection (e.g., fluorescent (348/226)

FOR 204 ...With ambient light sensor (348/227)

FOR 205 ...Responsive to output signal (348/228)

FOR 206 ..Combined automatic gain control and exposure control (i.e., sensitivity control (348/229)

FOR 207 ...Readout of solid-state image sensor considered or altered (348/230)

FOR 208 ..With details of static memory for output image (e.g., for a still camera) (348/231)

FOR 209 ...With storage of additional, non-image information (e.g., audio, time, date) (348/232)

FOR 210 ...Detachable (348/233)

FOR 211 ...Electronic zoom (348/240)

FOR 212 ..Variable magnification (i.e., zoom) (348/358)

C. CHANGES TO THE U.S. ECLA CONCORDANCE

Class	Subclass	Subclass	Notation
348	E3.001	H04N	3/00
	E3.002		3/36
	E3.003		3/38
	E3.004		3/40
	E3.005		3/40B
	E3.006		3/02
	E3.007		3/04
	E3.008		3/06
	E3.009		3/08
	E3.01		3/09
	E3.011		3/10
	E3.012		3/12
	E3.013		3/12C
	E3.014		3/12G
	E3.015		3/12L
	E3.016		3/14
	E3.017		3/15
	E3.018		3/15E
	E3.019		3/15E2
	E3.02		3/15E4
	E3.021		3/15E6
	E3.022		3/15F
	E3.023		3/15D
	E3.024		3/15D2
	E3.025		3/15D4
	E3.026		3/15D6
	E3.027		3/15G
	E3.028		3/15C
	E3.029		3/15C4
	E3.03		3/15C6
	E3.031		3/15H
	E3.032		3/15J
	E3.033		3/16
	E3.034		3/18
	E3.035		3/185
	E3.036		3/185P
	E3.037		3/185S
	E3.038		3/19
	E3.039		3/20
	E3.04		3/22
	E3.041		3/223
	E3.042		3/227
	E3.043		3/233
	E3.045		3/233C
	E3.046		3/237
	E3.047		3/24
	E3.048		3/26
	E3.049		3/27
	E3.05		3/28

Class	Subclass	Subclass	Notation
348	E3.051	H04N	3/30
	E3.052		3/32
	E3.053		3/34
	E5.001		5/00
	E5.002		5/00M
	E5.003		5/00M2
	E5.004		5/00M4
	E5.005		5/00M6
	E5.006		5/00M8
	E5.007		5/00M10
	E5.008		5/00N
	E5.009		5/04
	E5.01		5/05
	E5.011		5/06
	E5.012		5/067
	E5.013		5/067B
	E5.014		5/073
	E5.015		5/073B
	E5.016		5/073C
	E5.017		5/08
	E5.018		5/10
	E5.019		5/12
	E5.02		5/12B
	E5.021		5/12C
	E5.022		5/222
	E5.023		5/222P
	E5.024		5/225
	E5.025		5/225C
	E5.026		5/225C2
	E5.027		5/225C3
	E5.028		5/225C4
	E5.029		5/225L
	E5.03		5/225V
	E5.031		5/228
	E5.032		5/228B
	E5.033		5/228B2
	E5.034		5/235
	E5.035		5/235B
	E5.036		5/235C
	E5.037		5/235E
	E5.038		5/235L
	E5.039		5/235T
	E5.04		5/238
	E5.041		5/243
	E5.042		5/232
	E5.043		5/232C
	E5.044		5/232C2
	E5.045		5/232F
	E5.046		5/232S
	E5.047		5/232V
	E5.048		5/247
	E5.049		5/253
	E5.05		5/257

Class	Subclass	Subclass	Notation
348	E5.051	H04N	5/262
	E5.052		5/262E
	E5.053		5/262M
	E5.054		5/262S
	E5.055		5/262T
	E5.056		5/265
	E5.057		5/268
	E5.058		5/272
	E5.059		5/275
	E5.06		5/278
	E5.061		5/28
	E5.062		5/14
	E5.063		5/14B
	E5.064		5/14E
	E5.065		5/14M
	E5.066		5/14M2
	E5.067		5/14S
	E5.068		5/14V
	E5.069		5/16
	E5.07		5/16B
	E5.071		5/18
	E5.072		5/18B
	E5.073		5/20
	E5.074		5/202
	E5.075		5/205
	E5.076		5/208
	E5.077		5/21
	E5.078		5/217
	E5.079		5/217S
	E5.08		5/217S2
	E5.081		5/217S3
	E5.082		5/217S3B
	E5.083		5/213
	E5.084		5/21A
	E5.085		5/30
	E5.086		5/32
	E5.087		5/321
	E5.088		5/325
	E5.089		5/32S
	E5.09		5/33
	E5.091		5/335
	E5.092		5/335B
	E5.093		5/38
	E5.094		5/40
	E5.095		5/42
	E5.096		5/44
	E5.097		5/50
	E5.098		5/50B
	E5.099		5/445
	E5.1		5/445C
	E5.101		5/445D
	E5.102		5/445F
	E5.103		5/445R

Class	Subclass	Subclass	Notation
348	E5.104	H04N	5/445W
	E5.105		5/445M
	E5.106		5/44B
	E5.107		5/44F
	E5.108		5/44N
	E5.109		5/44P
	E5.11		5/44S
	E5.111		5/44W
	E5.112		5/45
	E5.113		5/445
	E5.114		5/46
	E5.115		5/52
	E5.116		5/53
	E5.117		5/54
	E5.118		5/56
	E5.119		5/57
	E5.12		5/58
	E5.121		5/59
	E5.122		5/60
	E5.123		5/60N
	E5.124		5/60N2
	E5.125		5/60S
	E5.126		5/62
	E5.127		5/63
	E5.128		5/64
	E5.129		5/645
	E5.13		5/64S
	E5.131		5/65
	E5.132		5/655
	E5.133		5/66
	E5.134		5/68
	E5.135		5/70
	E5.136		5/72
	E5.137		5/74
	E5.138		5/74D
	E5.139		5/74M
	E5.14		5/74M2
	E5.141		5/74M4
	E5.142		5/74M6
	E5.143		5/74P
	E5.144		5/74P5
	E5.145		5/74P7
	E7.001		7/00
	E7.002		7/00L
	E7.003		7/01
	E7.004		7/015
	E7.005		7/015B
	E7.006		7/015B2
	E7.007		7/015B2M
	E7.008		7/01A
	E7.009		7/01B

Class	Subclass	Subclass	Notation
348	E7.01	H04N	7/01B2
	E7.011		7/01B4
	E7.012		7/01D
	E7.013		7/01D4
	E7.014		7/01D2
	E7.015		7/01F
	E7.016		7/01H
	E7.017		7/025
	E7.018		7/025D
	E7.019		7/03
	E7.02		7/035
	E7.021		7/035C
	E7.022		7/035D
	E7.023		7/035E
	E7.024		7/08
	E7.025		7/081
	E7.026		7/083
	E7.027		7/084
	E7.028		7/085
	E7.029		7/085B
	E7.03		7/087
	E7.031		7/088
	E7.032		7/088A
	E7.033		7/088B
	E7.034		7/088D
	E7.035		7/088D2
	E7.036		7/088P
	E7.037		7/088S
	E7.038		7/08A
	E7.039		7/08C
	E7.04		7/04
	E7.041		7/045
	E7.042		7/06
	E7.043		7/06B
	E7.044		7/06C
	E7.045		7/12
	E7.046		7/12C
	E7.047		7/12C2
	E7.048		7/12D
	E7.049		7/10H
	E7.05		7/10H
	E7.051		7/10W
	E7.052		7/10C
	E7.053		7/10C2
	E7.054		7/16
	E7.055		7/167
	E7.056		7/167D
	E7.057		7/169
	E7.058		7/169B
	E7.059		7/169C
	E7.06		7/16E
	E7.061		7/16E2
	E7.062		7/16E2B

Class	Subclass	Subclass	Notation
348	E7.063	H04N	7/16E3
	E7.064		7/16D
	E7.065		7/16F
	E7.066		7/171
	E7.067		7/171B
	E7.068		7/171C
	E7.069		7/173
	E7.07		7/173B
	E7.071		7/173B2
	E7.072		7/173B3
	E7.073		7/173B4
	E7.074		7/173C
	E7.075		7/173C2
	E7.076		7/173C3
	E7.077		7/14
	E7.078		7/14A
	E7.079		7/14A2
	E7.08		7/14A2B
	E7.081		7/14A3
	E7.082		7/14A4
	E7.083		7/15
	E7.084		7/15M
	E7.085		7/18
	E7.086		7/18C
	E7.087		7/18D
	E7.088		7/18D2
	E7.089		7/18D3
	E7.09		7/18E
	E7.091		7/00B
	E7.092		7/00B3
	E7.093		7/20
	E7.094		7/22
	E9.001		9/00
	E9.002		9/04
	E9.003		9/07
	E9.004		9/077
	E9.005		9/083
	E9.006		9/09
	E9.007		9/093
	E9.008		9/097
	E9.009		9/11
	E9.01		9/04B
	E9.011		9/10
	E9.012		9/12
	E9.013		9/14
	E9.014		9/16
	E9.015		9/27
	E9.016		9/18
	E9.017		9/20
	E9.018		9/22
	E9.019		9/24
	E9.02		9/26
	E9.021		9/28

Class	Subclass	Subclass	Notation
348	E9.022	H04N	9/285
	E9.023		9/29
	E9.024		9/30
	E9.025		9/31
	E9.026		9/31L
	E9.027		9/31V
	E9.028		9/43
	E9.029		9/44
	E9.03		9/45
	E9.031		9/455
	E9.032		9/465
	E9.033		9/47
	E9.034		9/475
	E9.035		9/77
	E9.036		9/78
	E9.037		9/64
	E9.038		9/64B
	E9.039		9/64A
	E9.04		9/64C
	E9.041		9/64D
	E9.042		9/64E
	E9.043		9/64M
	E9.044		9/64V
	E9.045		9/65
	E9.046		9/66
	E9.047		9/67
	E9.048		9/70
	E9.049		9/71
	E9.05		9/72
	E9.051		9/73
	E9.052		9/73B
	E9.053		9/68
	E9.054		9/69
	E9.055		9/74
	E9.056		9/75
	E9.057		9/76
	E11.001		11/00
	E11.002		11/00H
	E11.003		11/00H2
	E11.004		11/00H4
	E11.005		11/00H6
	E11.006		11/02
	E11.007		11/06
	E11.008		11/08
	E11.009		11/10
	E11.01		11/12
	E11.011		11/14
	E11.012		11/16
	E11.013		11/16P
	E11.014		11/16B
	E11.015		11/16C
	E11.016		11/14B
	E11.017		11/14C

Class	Subclass	Subclass	Notation
348	E11.018	H04N	11/18
	E11.019		11/18B
	E11.02		11/18C
	E11.021		11/20
	E11.022		11/22
	E13.001		13/00
	E13.002		13/00S
	E13.003		13/00S2
	E13.004		13/00S2A
	E13.005		13/00S2A1
	E13.006		13/00S2A1B
	E13.007		13/00S2A1D
	E13.008		13/00S2A1M
	E13.009		13/00S2A1A
	E13.01		13/00S2A1P
	E13.011		13/00S2A1T
	E13.012		13/00S2A1S
	E13.013		13/00S2A1V
	E13.014		13/00S2A2
	E13.015		13/00S2A3
	E13.016		13/00S2A7
	E13.017		13/00S2A8
	E13.018		13/00S2A9
	E13.019		13/00S2B
	E13.02		13/00S2C
	E13.021		13/00S2L
	E13.022		13/00S2M
	E13.023		13/00S2M1
	E13.024		13/00S2N
	E13.025		13/00S2Y
	E13.026		13/00S4
	E13.027		13/00S4A
	E13.028		13/00S4A2
	E13.029		13/00S4A1
	E13.03		13/00S4A3
	E13.031		13/00S4A7
	E13.032		13/00S4A9
	E13.033		13/00S4B
	E13.034		13/00S4C
	E13.035		13/00S4E
	E13.036		13/00S4G
	E13.037		13/00S4G1
	E13.038		13/00S4G3
	E13.039		13/00S4G5
	E13.04		13/00S4G7
	E13.041		13/00S4G9
	E13.042		13/00S4H
	E13.043		13/00S4L
	E13.044		13/00S4M
	E13.045		13/00S4T
	E13.046		13/00S4T1
	E13.047		13/00S4T11
	E13.048		13/00S4T2
	E13.049		13/00S4T3
	E13.05		13/00S4T5

Class	Subclass	Subclass	Notation
348	E13.051	H04N	13/00S4T7
	E13.052		13/00S4T9
	E13.053		13/00S4U
	E13.054		13/00S4V
	E13.055		13/00S4V1
	E13.056		13/00S4V3
	E13.057		13/00S4V5
	E13.058		13/00S4P
	E13.059		13/00S4Y
	E13.06		13/00S6
	E13.061		13/00S6B
	E13.062		13/00S6C
	E13.063		13/00S6M
	E13.064		13/00S6P
	E13.065		13/00S6P1
	E13.066		13/00S6P1V
	E13.067		13/00S6P3
	E13.068		13/00S6P5
	E13.069		13/00S6P7
	E13.07		13/00S6S
	E13.071		13/00S6T
	E13.072		13/00S6U
	E13.073		13/00S6Y
	E13.074		13/02
	E13.075		13/04
	E15.001		15/00
	E17.001		17/00
	E17.002		17/00C
	E17.003		17/00N
	E17.004		17/02
	E17.005		17/04
	E17.006		17/04B

CLASS 348 - TELEVISION

The E-subclasses in U.S. Class 348 provide for (1) the transmission of pictures by methods involving the scanning of a picture, i.e. resolving the whole picture-containing area into individual picture-elements and the derivation of picture-representative electric signals related thereto, simultaneously or in sequence and (2) their transient or permanent reproduction either locally or remotely, by methods involving the reproduction of the whole picture-containing area by the reproduction of individual picture-elements into which the picture is resolved by means of picture-representative electric signals derived there from, simultaneously or in sequence, and (3) circuits specially designed for dealing with pictorial communication signals, e.g. television signals, as distinct from merely signals of a particular frequency range.

E-SUBCLASSES

E3.001 SCANNING DETAILS OF TELEVISION SYSTEMS (EPO)
This main group provides for methods and devices for converting sequences of image elements into electrical signals. This subclass is substantially the same in scope as ECLA classification H04N 3/00.

E3.002 Scanning of motion picture films, e.g., for telecine (EPO):
This subclass is indented under subclass E3.001. This subclass is substantially the same in scope as ECLA classification H04N 3/36.

E3.003 With continuously moving film (EPO):
This subclass is indented under subclass E3.002. This subclass is substantially the same in scope as ECLA classification H04N 3/38.

E3.004 With intermittently moving film (EPO):
This subclass is indented under subclass E3.002. This subclass is substantially the same in scope as ECLA classification H04N 3/40.

E3.005 With film moving only during the field blanking interval (EPO):
This subclass is indented under subclass E3.004. This subclass is substantially the same in scope as ECLA classification H04N 3/40B.

E3.006 By optical-mechanical means only (EPO):
This subclass is indented under subclass E3.001. This subclass is substantially the same in scope as ECLA classification H04N 3/02.

E3.007 Having a moving aperture (EPO):
This subclass is indented under subclass E3.006. This subclass is substantially the same in scope as ECLA classification H04N 3/04.

(1) Note. This subclass covers moving apertures covered by lenses.

E3.008 Having a moving lens or other refractor (EPO):
This subclass is indented under subclass E3.006. This subclass is substantially the same in scope as ECLA classification H04N 3/06.

E3.009 Having a moving reflector (EPO):
This subclass is indented under subclass E3.006. This subclass is substantially the same in scope as ECLA classification H04N 3/08.

E3.01 For electromagnetic radiation in the invisible region, e.g., infra-red (EPO):
This subclass is indented under subclass E3.009. This subclass is substantially the same in scope as ECLA classification H04N 3/09.

E3.011 By means not exclusively optical-mechanical (EPO):
This subclass is indented under subclass E3.001. This subclass is substantially the same in scope as ECLA classification H04N 3/10.

E3.012 By switched stationary formation of lamps, photocells or light relays (EPO):
This subclass is indented under subclass E3.011. This subclass is substantially the same in scope as ECLA classification H04N 3/12.

E3.013 Using cathode rays, e.g., multivision (EPO):
This subclass is indented under subclass E3.012. This subclass is substantially the same in scope as ECLA classification H04N 3/12C.

E3.014 Using gas discharges, e.g., plasma (EPO):
This subclass is indented under subclass E3.012. This subclass is substantially the same in scope as ECLA classification H04N 3/12G.

E3.015 Using liquid crystals (EPO):
This subclass is indented under subclass E3.012. This subclass is substantially the same in scope as ECLA classification H04N 3/12L.

E3.016 By means of electrically scanned solid-state devices (EPO):
This subclass is indented under subclass E3.011. This subclass is substantially the same in scope as ECLA classification H04N 3/14.

E3.017 For picture signal generation (EPO):
This subclass is indented under subclass E3.016. This subclass is substantially the same in scope as ECLA classification H04N 3/15.

E3.018 Control of the image-sensor operation, e.g., image processing within the image-sensor (EPO):
This subclass is indented under subclass E3.017. This subclass is substantially the same in scope as ECLA classification H04N 3/15E.

E3.019 For variable integration time (EPO):
This subclass is indented under subclass E3.018. This subclass is substantially the same in scope as ECLA classification H04N 3/15E2.

E3.02 For selective scanning, e.g., windowing, zooming (EPO):
This subclass is indented under subclass E3.018. This subclass is substantially the same in scope as ECLA classification H04N 3/15E4.

E3.021 For disturbance correction or prevention within the image-sensor, e.g., biasing, blooming, smearing (EPO):
This subclass is indented under subclass E3.018. This subclass is substantially the same in scope as ECLA classification H04N 3/15E6.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E5.08**,** for correction circuits.

E3.022 Picture signal readout register, e.g., shift registers, interline shift registers (EPO):
This subclass is indented under subclass E3.017. This subclass is substantially the same in scope as ECLA classification H04N 3/15F.

E3.023 With charge transfer within the image-sensor, e.g., time delay and integration (EPO):
This subclass is indented under subclass E3.017. This subclass is substantially the same in scope as ECLA classification H04N 3/15D.

E3.024 Using frame-interline transfer (EPO):
This subclass is indented under subclass E3.023. This subclass is substantially the same in scope as ECLA classification H04N 3/15D2.

E3.025 Using interline transfer (EPO):
This subclass is indented under subclass E3.023. This subclass is substantially the same in scope as ECLA classification H04N 3/15D4.

E3.026 Using frame transfer (EPO):
This subclass is indented under subclass E3.023. This subclass is substantially the same in scope as ECLA classification H04N 3/15D6.

E3.027 Using linear image-sensor (EPO):
This subclass is indented under subclass E3.017. This subclass is substantially the same in scope as ECLA classification H04N 3/15G.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.023, for time delay and integration.

E3.028 With addressing of the image-sensor elements (EPO):
This subclass is indented under subclass E3.017. This subclass is substantially the same in scope as ECLA classification H04N 3/15C.

E3.029 For MOS image-sensors, e.g., MOS-CCD (EPO):
This subclass is indented under subclass E3.028. This subclass is substantially the same in scope as ECLA classification H04N 3/15C4.

E3.03 Using charge injection within the image-sensor (EPO):
This subclass is indented under subclass E3.028. This subclass is substantially the same in scope as ECLA classification H04N 3/15C6.

E3.031 The image being sequentially picked-up by one device at different imaging positions, e.g., by shifting the image-sensor (EPO):
This subclass is indented under subclass E3.017. This subclass is substantially the same in scope as ECLA classification H04N 3/15H.

E3.032 The image being simultaneously picked-up by more than one device, e.g., the scene being partitioned into sub-images (EPO):
This subclass is indented under subclass E3.017. This subclass is substantially the same in scope as ECLA classification H04N 3/15J.

E3.033 By deflecting electron beam in cathode-ray tube (EPO):
This subclass is indented under subclass E3.011. This subclass is substantially the same in scope as ECLA classification H04N 3/16.

(1) Note. This subclass provides, for example, for scanning corrections.

E3.034 Generation of supply voltages, in combination with electron beam deflecting (EPO):
This subclass is indented under subclass E3.033. This subclass is substantially the same in scope as ECLA classification H04N 3/18.

E3.035 Maintaining dc voltage constant (EPO):
This subclass is indented under subclass E3.033. This subclass is substantially the same in scope as ECLA classification H04N 3/185.

E3.036 Using regulation in parallel (EPO):
This subclass is indented under subclass E3.035. This subclass is substantially the same in scope as ECLA classification H04N 3/185P.

E3.037 Using regulation in series (EPO):
This subclass is indented under subclass E3.035. This subclass is substantially the same in scope as ECLA classification H04N 3/185S.

E3.038 Arrangements or assemblies in supply circuits for the purpose of withstanding high voltages (EPO):
This subclass is indented under subclass E3.035. This subclass is substantially the same in scope as ECLA classification H04N 3/19.

E3.039 Prevention of damage to cathode-ray tubes in the event of failure of scanning (EPO):
This subclass is indented under subclass E3.033. This subclass is substantially the same in scope as ECLA classification H04N 3/2.

E3.04 Circuits for controlling dimension, shape or centering of picture on screen (EPO):
This subclass is indented under subclass E3.033. This subclass is substantially the same in scope as ECLA classification H04N 3/22.

E3.041 Controlling dimensions (EPO):
This subclass is indented under subclass E3.04. This subclass is substantially the same in scope as ECLA classification H04N 3/223.

SEE OR SEARCH THIS CLASS, SUBCLASS:
E3.035 for controlling dimensions by maintaining the cathode-ray tube high voltage constant.

E3.042 Centering (EPO):
This subclass is indented under subclass E3.04. This subclass is substantially the same in scope as ECLA classification H04N 3/227.

E3.043 Distortion correction, e.g. for pincushion distortion correction, S-correction (EPO):
This subclass is indented under subclass E3.04. This subclass is substantially the same in scope as ECLA classification H04N 3/23.

E3.044 Using active elements (EPO):
This subclass is indented under subclass E3.043. This subclass is substantially the same in scope as ECLA classification H04N 3/233.

E3.045 With calculating means (EPO):
This subclass is indented under subclass E3.044. This subclass is substantially the same in scope as ECLA classification H04N 3/233C.

E3.046 Using passive elements, e.g., diodes (EPO):
This subclass is indented under subclass E3.043. This subclass is substantially the same in scope as ECLA classification H04N 3/237.

E3.047 Blanking circuits (EPO):
This subclass is indented under subclass E3.033. This subclass is substantially the same in scope as ECLA classification H04N 3/24.

E3.048 Modifications of scanning arrangements to improve focusing (EPO):
This subclass is indented under subclass E3.033. This subclass is substantially the same in scope as ECLA classification H04N 3/26.

E3.049 Circuits special to multi-standard receivers (EPO):
This subclass is indented under subclass E3.033. This subclass is substantially the same in scope as ECLA classification H04N 3/27.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E5.114, for circuitry of multi-standard receivers in general.

E3.05 Producing multiple scanning, i.e., using more than one spot at the same time (EPO):
This subclass is indented under subclass E3.011. This subclass is substantially the same in scope as ECLA classification H04N 3/28.

E3.051 Otherwise than with constant velocity or otherwise than in pattern formed by unidirectional, straight, substantially horizontal or vertical lines (EPO):
This subclass is indented under subclass E3.011. This subclass is substantially the same in scope as ECLA classification H04N 3/30.

E3.052 Velocity varied in dependence upon picture information (EPO):
This subclass is indented under subclass E3.051. This subclass is substantially the same in scope as ECLA classification H04N 3/32.

E3.053 Elemental scanning area oscillated rapidly in direction transverse to main scanning direction (EPO):
This subclass is indented under subclass E3.051. This subclass is substantially the same in scope as ECLA classification H04N 3/34

E5.001 DETAILS OF TELEVISION SYSTEMS (EPO):
This main group provides for details of television methods and devices for transmitting black-and-white picture signals. This subclass is substantially the same in scope as ECLA classification H04N 5/00.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.001, for scanning details or combination thereof with generation of supply voltages.

E9.001, for details of color television systems**.**

E5.002 Multimedia set-top circuitry for digital video services (EPO):
This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/00M.

E5.003 Downstream channel decoding therefor (EPO):
This subclass is indented under subclass E5.002. This subclass is substantially the same in scope as ECLA classification H04N 5/00M2.

E5.004 Involving conditional access (EPO):

This subclass is indented under subclass E5.002. This subclass is substantially the same in scope as ECLA classification H04N 5/00M4.

E5.005 Transport demultiplexing therefor (EPO):

This subclass is indented under subclass E5.002. This subclass is substantially the same in scope as ECLA classification H04N 5/00M6.

E5.006 Operative control therefor (EPO):

This subclass is indented under subclass E5.002. This subclass is substantially the same in scope as ECLA classification H04N 5/00M8.

E5.007 Involving digital storage medium interfacing (EPO):

This subclass is indented under subclass E5.002. This subclass is substantially the same in scope as ECLA classification H04N 5/00M10.

E5.008 Multimedia server circuitry for digital video services (EPO):

This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/00N.

E5.009 Synchronizing (EPO):

This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/04.

E5.01 Synchronizing circuits with arrangements for extending range of synchronization, e.g., by using switching between several time constants (EPO):

This subclass is indented under subclass E5.009. This subclass is substantially the same in scope as ECLA classification H04N 5/05.

E5.011 Generation of synchronizing signals (EPO):

This subclass is indented under subclass E5.009. This subclass is substantially the same in scope as ECLA classification H04N 5/06.

E5.012 Arrangements or circuits at the transmitter end (EPO):

This subclass is indented under subclass E5.011. This subclass is substantially the same in scope as ECLA classification H04N 5/067.

E5.013 For mixing the synchronizing signals with the picture signal or mutually (EPO):

This subclass is indented under subclass E5.012. This subclass is substantially the same in scope as ECLA classification H04N 5/067B.

E5.014 For mutually locking plural sources of synchronizing signals, e.g., studios or relay stations (EPO):

This subclass is indented under subclass E5.012. This subclass is substantially the same in scope as ECLA classification H04N 5/073.

E5.015 For distributing synchronization pulses to different TV cameras (EPO):

This subclass is indented under subclass E5.014. This subclass is substantially the same in scope as ECLA classification H04N 5/073B.

E5.016 Using digital storage buffer techniques (EPO):

This subclass is indented under subclass E5.014. This subclass is substantially the same in scope as ECLA classification H04N 5/073C.

E5.017 Separation of synchronizing signals from picture signals (EPO):
This subclass is indented under subclass E5.009. This subclass is substantially the same in scope as ECLA classification H04N 5/08.

E5.018 Separation of line synchronizing signal from frame synchronizing signal (EPO):
This subclass is indented under subclass E5.017. This subclass is substantially the same in scope as ECLA classification H04N 5/10.

(1) Note. This subclass includes the separation of frame synchronizing signals from line synchronizing signals.

E5.019 Devices in which the synchronizing signals are only operative if a phase difference occurs between synchronizing and synchronized scanning devices, e.g., flywheel synchronizing (EPO):
This subclass is indented under subclass E5.009. This subclass is substantially the same in scope as ECLA classification H04N 5/12.

E5.02 Whereby the synchronization signal directly commands a frequency generator (EPO):
This subclass is indented under subclass E5.019. This subclass is substantially the same in scope as ECLA classification H04N 5/12B.

E5.021 Whereby the synchronization signal indirectly commands a frequency generator (EPO):
This subclass is indented under subclass E5.019. This subclass is substantially the same in scope as ECLA classification H04N 5/12C.

E5.022 Studio circuitry; Studio devices; Studio equipment (EPO):
This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/222.

E5.023 Prompting (EPO):
This subclass is indented under subclass E5.022. This subclass is substantially the same in scope as ECLA classification H04N 5/222P.

E5.024 Television cameras (EPO):
This subclass is indented under subclass E5.022. This subclass is substantially the same in scope as ECLA classification H04N 5/225.

E5.025 Constructional details (EPO):
This subclass is indented under subclass E5.024. This subclass is substantially the same in scope as ECLA classification H04N 5/225C.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E5.048, for arrangements of cameras.

E5.026 Housings (EPO):
This subclass is indented under subclass E5.025. This subclass is substantially the same in scope as ECLA classification H04N 5/225C2.

E5.027 Mounting of pick-up device, deviation or focusing coils (EPO):
This subclass is indented under subclass E5.025. This subclass is substantially the same in scope as ECLA classification H04N 5/225C3.

E5.028 Mounting of optical parts, e.g., lenses, shutters, filters (EPO):
This subclass is indented under subclass E5.025. This subclass is substantially the same in scope as ECLA classification H04N 5/225C4.

E5.029 Provided with illuminating means (EPO):
This subclass is indented under subclass E5.024. This subclass is substantially the same in scope as ECLA classification H04N 5/225L.

E5.03 Means for changing the camera's field of view without moving the camera body, e.g., nutating or panning optics or image-sensors (EPO):
T his subclass is indented under subclass E5.024. This subclass is substantially the same in scope as ECLA classification H04N 5/225V.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.031, for picture signal generation using shifting image-sensors.

E5.031 Circuit details for pick-up tubes (EPO):
This subclass is indented under subclass E5.024. This subclass is substantially the same in scope as ECLA classification H04N 5/228.

E5.032 Beam current control (EPO):
This subclass is indented under subclass E5.031. This subclass is substantially the same in scope as ECLA classification H04N 5/228B.

E5.033 During retrace periods, e.g., circuits for ACT tubes, leg suppression (EPO):
This subclass is indented under subclass E5.032. This subclass is substantially the same in scope as ECLA classification H04N 5/228B2.

E5.034 Circuitry for compensating for variation in the brightness of the object (EPO):
This subclass is indented under subclass E5.024. This subclass is substantially the same in scope as ECLA classification H04N 5/235.

E5.035 Circuitry for evaluating the brightness variations of the object (EPO):
This subclass is indented under subclass E5.034. This subclass is substantially the same in scope as ECLA classification H04N 5/235B.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.018, for such circuits within the image sensor.

E5.036 Combination of two or more compensation controls (EPO):
This subclass is indented under subclass E5.034. This subclass is substantially the same in scope as ECLA classification H04N 5/235C.

E5.037 By influencing the exposure time, e.g., shutter (EPO):
This subclass is indented under subclass E5.034. This subclass is substantially the same in scope as ECLA classification H04N 5/235E.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.019 for such subject matter within the image sensor.

E5.038 By influencing the scene brightness using illuminating means (EPO):
This subclass is indented under subclass E5.034. This subclass is substantially the same in scope as ECLA classification H04N 5/235L.

E5.039 By influencing at least one of the pick-up tube voltages (EPO):
This subclass is indented under subclass E5.034. This subclass is substantially the same in scope as ECLA classification H04N 5/235T.

E5.04 By influencing the optical part of the camera (EPO):
This subclass is indented under subclass E5.034. This subclass is substantially the same in scope as ECLA classification H04N 5/238.

(1) Note. This subclass covers, for example, diaphragms, intensifiers, fiber bundles.

E5.041 By influencing the picture signal (EPO):
This subclass is indented under subclass E5.034. This subclass is substantially the same in scope as ECLA classification H04N 5/243.

(1) Note. This subclass covers, for example, signal amplitude gain control.

E5.042 Devices for controlling television cameras, e.g., remote control (EPO):
This subclass is indented under subclass E5.024. This subclass is substantially the same in scope as ECLA classification H04N 5/232.

E5.043 Remote control signaling for television cameras or for parts of television camera, e.g., between main body and part of camera (EPO):
This subclass is indented under subclass E5.042. This subclass is substantially the same in scope as ECLA classification H04N 5/232C.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E5.015, for distributing sync-signals to television cameras.

E5.044 For interchangeable parts of television camera (EPO):
This subclass is indented under subclass E5.043. This subclass is substantially the same in scope as ECLA classification H04N 5/232C2.

E5.045 Focusing (EPO):
This subclass is indented under subclass E5.042. This subclass is substantially the same in scope as ECLA classification H04N 5/232F.

E5.046 For stable pick-up of the scene in spite of camera body vibration (EPO):
This subclass is indented under subclass E5.042. This subclass is substantially the same in scope as ECLA classification H04N 5/232S.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.02, for image-sensor selective scanning, per se.

E5.047 View-finder (EPO):
This subclass is indented under subclass E5.042. This subclass is substantially the same in scope as ECLA classification H04N 5/232V.

E5.048 Arrangements of television cameras (EPO):
This subclass is indented under subclass E5.024. This subclass is substantially the same in scope as ECLA classification H04N 5/247.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E5.025, for constructional details of cameras.

E5.049 Picture signal generating by scanning motion picture films or slide opaques, e.g., for telecine (EPO):
This subclass is indented under subclass E5.022. This subclass is substantially the same in scope as ECLA classification H04N 5/253.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.002, for scanning details of picture signal generators of this subclass type.

E7.015, for standard conversion for such picture signal generating of this subclass type.

E5.05 Picture signal generators using flying-spot scanners (EPO):
This subclass is indented under subclass E5.022. This subclass is substantially the same in scope as ECLA classification H04N 5/257.

E5.051 Studio circuits, e.g., for mixing, switching-over, change of character of image, other special effects (EPO):
This subclass is indented under subclass E5.022. This subclass is substantially the same in scope as ECLA classification H04N 5/262P.

E5.052 Signal amplitude transition in the zone between image portions, e.g., soft edges (EPO):
This subclass is indented under subclass E5.051. This subclass is substantially the same in scope as ECLA classification H04N 5/262E.

E5.053 For obtaining an image which is composed of whole input images, e.g., splitscreen (EPO):
This subclass is indented under subclass E5.051. This subclass is substantially the same in scope as ECLA classification H04N 5/262M.

E5.054 For obtaining an image which is composed of images from a temporal image sequence, e.g., for a stroboscopic effect (EPO):
This subclass is indented under subclass E5.051. This subclass is substantially the same in scope as ECLA classification H04N 5/262S.

SEE OR SEARCH THIS CLASS, SUBCLASS;

E7.090, for subject matter having sequences generated by event-triggered capturing.

E5.055 Alteration of picture size, shape, position or orientation, e.g., zooming, rotation, rolling, perspective, translation (EPO):
This subclass is indented under subclass E5.051. This subclass is substantially the same in scope as ECLA classification H04N 5/262T.

E5.056 Mixing (EPO):
This subclass is indented under subclass E5.051. This subclass is substantially the same in scope as ECLA classification H04N 5/265.

E5.057 Signal distribution or switching (EPO):
This subclass is indented under subclass E5.051. This subclass is substantially the same in scope as ECLA classification H04N 5/268.

E5.058 Means for inserting a foreground image in a background image, i.e., inlay, outlay (EPO):

This subclass is indented under subclass E5.051. This subclass is substantially the same in scope as ECLA classification H04N 5/272.

E5.059 Generation of keying signals (EPO):

This subclass is indented under subclass E5.058. This subclass is substantially the same in scope as ECLA classification H04N 5/275.

E5.06 Subtitling (EPO):

This subclass is indented under subclass E5.051. This subclass is substantially the same in scope as ECLA classification H04N 5/278.

E5.061 Mobile studios (EPO):

This subclass is indented under subclass E5.022. This subclass is substantially the same in scope as ECLA classification H04N 5/28.

E5.062 Picture signal circuitry for video frequency region (EPO):

This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/14.

E5.063 Beam current control means (EPO):

This subclass is indented under subclass E5.062. This subclass is substantially the same in scope as ECLA classification H04N 5/14B.

E5.064 Edging; Contouring (EPO):

This subclass is indented under subclass E5.062. This subclass is substantially the same in scope as ECLA classification H04N 5/14E.

E5.065 Movement detection (EPO):

This subclass is indented under subclass E5.062. This subclass is substantially the same in scope as ECLA classification H04N 5/14M.

E5.066 Movement estimation (EPO):

This subclass is indented under subclass E5.065 This subclass is substantially the same in scope as ECLA classification H04N 5/14M2

E5.067 Scene change detection (EPO):

This subclass is indented under subclass E5.062. This subclass is substantially the same in scope as ECLA classification H04N 5/14S.

E5.068 Video amplifiers (EPO):

This subclass is indented under subclass E5.062. This subclass is substantially the same in scope as ECLA classification H04N 5/14V.

E5.069 Circuitry for reinsertion of dc and slowly varying components of signal; Circuitry for preservation of black or white level (EPO):

This subclass is indented under subclass E5.062. This subclass is substantially the same in scope as ECLA classification H04N 5/16.

E5.07 To maintain the black level constant (EPO):

This subclass is indented under subclass E5.069. This subclass is substantially the same in scope as ECLA classification H04N 5/16B.

E5.071 By means of "clamp" circuit operated by switching circuit (EPO):
This subclass is indented under subclass E5.069. This subclass is substantially the same in scope as ECLA classification H04N 5/18.

E5.072 For the black level (EPO):
This subclass is indented under subclass E5.071. This subclass is substantially the same in scope as ECLA classification H04N 5/18B.

E5.073 Circuitry for controlling amplitude response (EPO):
This subclass is indented under subclass E5.062. This subclass is substantially the same in scope as ECLA classification H04N 5/20.

E5.074 Gamma control (EPO):
This subclass is indented under subclass E5.073. This subclass is substantially the same in scope as ECLA classification H04N 5/202.

E5.075 For correcting amplitude versus frequency characteristic (EPO):
This subclass is indented under subclass E5.073. This subclass is substantially the same in scope as ECLA classification H04N 5/205.

E5.076 For compensating for attenuation of high frequency components, e.g., crispening, aperture distortion correction (EPO):
This subclass is indented under subclass E5.075. This subclass is substantially the same in scope as ECLA classification H04N 5/208.

E5.077 Circuitry for suppressing or minimizing disturbance, e.g., moiré, halo (EPO):
This subclass is indented under subclass E5.062. This subclass is substantially the same in scope as ECLA classification H04N 5/21.

(1) Note. Subject matter of this subclass type may be combined with automatic gain control.

E5.078 In picture signal generation (EPO):
This subclass is indented under subclass E5.077. This subclass is substantially the same in scope as ECLA classification H04N 5/217.

E5.079 In solid-state picture signal generation (EPO):
This subclass is indented under subclass E5.078. This subclass is substantially the same in scope as ECLA classification H04N 5/217S.

E5.08 Suppression of excedentary charges, e.g., blooming, smearing (EPO):
This subclass is indented under subclass E5.079. This subclass is substantially the same in scope as ECLA classification H04N 5/217S2.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.019 and **E3.021,** for subject matter of this subclass type within the image sensor.

E5.081 Correction or equalization of amplitude response, e.g., dark current, blemishes, non-uniformity (EPO):
This subclass is indented under subclass E5.079. This subclass is substantially the same in scope as ECLA classification H04N 5/217S3.

E5.082 By initial calibration, e.g., with memory means (EPO):
This subclass is indented under subclass E5.081. This subclass is substantially the same in scope as ECLA classification H04N 5/217S3B.

E5.083 Circuitry for suppressing or minimizing impulsive noise (EPO):
This subclass is indented under subclass E5.077. This subclass is substantially the same in scope as ECLA classification H04N 5/213.

E5.084 Ghost signal cancellation (EPO):
This subclass is indented under subclass E5.077. This subclass is substantially the same in scope as ECLA classification H04N 5/21A.

E5.085 Transforming light or analogous information into electric information (EPO):
This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/30.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.001, for scanning details.

E5.086 Transforming X-rays (EPO):
This subclass is indented under subclass E5.085. This subclass is substantially the same in scope as ECLA classification H04N 5/32.

E5.087 With video transmission of fluoroscopic images (EPO):
This subclass is indented under subclass E5.086. This subclass is substantially the same in scope as ECLA classification H04N 5/321.

E5.088 Image enhancement, e.g., by subtraction techniques using polyenergetic X-rays (EPO):
This subclass is indented under subclass E5.087. This subclass is substantially the same in scope as ECLA classification H04N 5/325.

E5.089 Using subtraction imaging techniques (EPO):
This subclass is indented under subclass E5.086. This subclass is substantially the same in scope as ECLA classification H04N 5/32S.

E5.09 Transforming infra-red radiation (EPO):
This subclass is indented under subclass E5.085. This subclass is substantially the same in scope as ECLA classification H04N 5/33.

E5.091 Using electrically scanned solid-state devices (EPO):
This subclass is indented under subclass E5.085. This subclass is substantially the same in scope as ECLA classification H04N 5/335.

E5.092 With digital output of the sensor cell, e.g., dynamic RAM image sensors (EPO):
This subclass is indented under subclass E5.091. This subclass is substantially the same in scope as ECLA classification H04N 5/335B.

E5.093 Transmitter circuitry (EPO):
This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/38.

E5.094 Modulation circuits (EPO):
This subclass is indented under subclass E5.093. This subclass is substantially the same in scope as ECLA classification H04N 5/40.

E5.095 For transmitting at will black-and-white or color signals (EPO):
This subclass is indented under subclass E5.093. This subclass is substantially the same in scope as ECLA classification H04N 5/42.

E5.096 Receiver circuitry (EPO):
This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/44.

E5.097 Tuning indicators; Automatic tuning control (EPO):
This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/50.

E5.098 Invisible or silent tuning (EPO):
This subclass is indented under subclass E5.097. This subclass is substantially the same in scope as ECLA classification H04N 5/50B.

E5.099 For displaying additional information (EPO):
This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/445.

E5.1 Circuit details of the additional information generator, e.g., details of the character or graphics signal generator, overlay mixing circuits (EPO):
This subclass is indented under subclass E5.099. This subclass is substantially the same in scope as ECLA classification H04N 5/445C.

E5.101 Multiplexed with a digital video signal (EPO):
This subclass is indented under subclass E5.099. This subclass is substantially the same in scope as ECLA classification H04N 5/445D.

E5.102 For displaying or controlling a single function of one single apparatus, e.g., TV receiver or VCR (EPO):
This subclass is indented under subclass E5.099. This subclass is substantially the same in scope as ECLA classification H04N 5/445F.

E5.103 The additional information being controlled by a remote control apparatus (EPO):
This subclass is indented under subclass E5.099. This subclass is substantially the same in scope as ECLA classification H04N 5/445R.

E5.104 The additional information being displayed in a separate window, e.g., by using splitscreen display (EPO):
This subclass is indented under subclass E5.099. This subclass is substantially the same in scope as ECLA classification H04N 5/445W.

E5.105 Menu-type displays (EPO):
This subclass is indented under subclass E5.099. This subclass is substantially the same in scope as ECLA classification H04N 5/445M.

E5.106 I.F. amplifier-circuits as far as concerned for B&W-TV (EPO):
This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/44B.

E5.107 For frame-grabbing (EPO):
This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/44F.

E5.108 For the reception of a digital modulated video signal (EPO):

This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/44N.

E5.109 For progressive scanning (EPO):

This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/44P.

E5.11 For flicker reduction (EPO):

This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/44S.

E5.111 For displaying different aspect ratios (EPO):

This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/44W.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.033, for displaying different aspect rations by electron beam deflection.

E5.112 Picture in picture (EPO):

This subclass is indented under subclass E5.111. This subclass is substantially the same in scope as ECLA classification H04N 5/45.

E5.113 Demodulation-circuits (EPO):

This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/455.

E5.114 For receiving on more than one standard at will (EPO):

This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/46.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.049, for deflecting circuits of multi-standard receivers.

E5.115 Automatic gain control (EPO):

This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/52.

E5.116 Keyed automatic gain control (EPO):

This subclass is indented under subclass E5.115. This subclass is substantially the same in scope as ECLA classification H04N 5/53.

E5.117 For positively-modulated picture signals (EPO):

This subclass is indented under subclass E5.115. This subclass is substantially the same in scope as ECLA classification H04N 5/54.

E5.118 For negatively-modulated picture signals (EPO):

This subclass is indented under subclass E5.115. This subclass is substantially the same in scope as ECLA classification H04N 5/56.

E5.119 Control of contrast or brightness (EPO):

This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/57.

E5.12 In dependence upon ambient light (EPO):
This subclass is indented under subclass E5.119. This subclass is substantially the same in scope as ECLA classification H04N 5/58.

E5.121 In dependence upon beam current of cathode ray tube (EPO):
This subclass is indented under subclass E5.119. This subclass is substantially the same in scope as ECLA classification H04N 5/59.

E5.122 For the sound signals (EPO):
This subclass is indented under subclass E5.096. This subclass is substantially the same in scope as ECLA classification H04N 5/60.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E5.098, for silent tuning, i.e., muting.

E5.123 For digital sound signals (EPO):
This subclass is indented under subclass E5.122. This subclass is substantially the same in scope as ECLA classification H04N 5/60N.

E5.124 According to the NICAM system (EPO):
This subclass is indented under subclass E5.123. This subclass is substantially the same in scope as ECLA classification H04N 5/60N2.

E5.125 For more than one sound signal, e.g., stereo, multilanguages (EPO):
This subclass is indented under subclass E5.122. This subclass is substantially the same in scope as ECLA classification H04N 5/60S.

E5.126 Intercarrier circuits, i.e., heterodyning sound and vision carriers (EPO):
This subclass is indented under subclass E5.122. This subclass is substantially the same in scope as ECLA classification H04N 5/62.

E5.127 Generation or supply of power specially adapted for television receivers (EPO):
This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/63.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.034, for generation of supply voltages in combination with electron beam deflecting.

E5.128 Constructional details of receivers, e.g., cabinets, dust covers (EPO):
This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/64.

E5.129 Mounting of picture tube on chassis or in housing (EPO):
This subclass is indented under subclass E5.128. This subclass is substantially the same in scope as ECLA classification H04N 5/645.

E5.13 Disposition of sound reproducers (EPO):
This subclass is indented under subclass E5.128. This subclass is substantially the same in scope as ECLA classification H04N 5/64S.

E5.131 Holding-devices for protective discs or for picture masks (EPO):
This subclass is indented under subclass E5.128. This subclass is substantially the same in scope as ECLA classification H04N 5/65.

E5.132 Construction or mounting of chassis, e.g., for varying the elevation of the tube (EPO):

This subclass is indented under subclass E5.128. This subclass is substantially the same in scope as ECLA classification H04N 5/655.

E5.133 Transforming electric information into light information (EPO):

This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/66.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.001 for details of scanning.

E5.134 Circuit details for cathode-ray display tubes (EPO):

This subclass is indented under subclass E5.133. This subclass is substantially the same in scope as ECLA classification H04N 5/68.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E3.033, for deviation circuits.

E5.135 Circuit details for electroluminescent devices (EPO):

This subclass is indented under subclass E5.133. This subclass is substantially the same in scope as ECLA classification H04N 5/70.

E5.136 Modifying the appearance of television pictures by optical filters or diffusing screens (EPO):

This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/72.

E5.137 Projection arrangements for image reproduction, e.g., using eidophor (EPO):

This subclass is indented under subclass E5.001. This subclass is substantially the same in scope as ECLA classification H04N 5/74.

E5.138 Direct viewing projectors, e.g., an image displayed on a video CRT or LCD display being projected on a screen (EPO):

This subclass is indented under subclass E5.137. This subclass is substantially the same in scope as ECLA classification H04N 5/74D.

E5.139 Involving the use of a spatial light modulator, e.g., a light valve, controlled by a video signal (EPO):

This subclass is indented under subclass E5.137. This subclass is substantially the same in scope as ECLA classification H04N 5/74M.

E5.14 The modulator being a dielectric deformable layer controlled by an electron beam, e.g., eidophor projector (EPO):

This subclass is indented under subclass E5.139. This subclass is substantially the same in scope as ECLA classification H04N 5/74M2.

E5.141 The modulator being an array of liquid crystal cells (EPO):

This subclass is indented under subclass E5.139. This subclass is substantially the same in scope as ECLA classification H04N 5/74M4.

E5.142 The modulator being an array of deformable mirrors, e.g., digital micromirror device (DMD) (EPO):

This subclass is indented under subclass E5.139. This subclass is substantially the same in scope as ECLA classification H04N 5/74M6.

E5.143 Constructional details of television projection apparatus (EPO):

This subclass is indented under subclass E5.137. This subclass is substantially the same in scope as ECLA classification H04N 5/74P.

E5.144 For multi-screen projection (EPO):

This subclass is indented under subclass E5.143. This subclass is substantially the same in scope as ECLA classification H04N 5/74P5.

E5.145 Of head mounted projectors (EPO):

This subclass is indented under subclass E5.143. This subclass is substantially the same in scope as ECLA classification H04N 5/74P7.

E7.001 TELEVISION SYSTEMS (EPO)

This main group provides for television methods and devices for transmitting black-and-white picture signals. This subclass is substantially the same in scope as ECLA classification H04N 7/00.

SEE OR SEARCH THIS CLASS SUBCLASS:

E13.001, for stereoscopic television systems

E11.001, for systems specific to color television.

E5.001 and **E3.001,** for details of television systems.

E7.002 Systems with supplementary picture signal insertion during a portion of the active part of a television signal, e.g., during top and bottom lines in a HDTV letter-box system (EPO):

This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/00L.

E7.003 Conversion of standards (EPO):

This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/01.

E7.004 High-definition television systems (EPO):

This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/015.

E7.005 Using spatial or temporal subsampling (EPO):

This subclass is indented under subclass E7.004. This subclass is substantially the same in scope as ECLA classification H04N 7/015B.

E7.006 Using pixel blocks (EPO):

This subclass is indented under subclass E7.005. This subclass is substantially the same in scope as ECLA classification H04N 7/015B2.

E7.007 With motion estimation, e.g., involving the use of motion vectors (EPO):

This subclass is indented under subclass E7.006. This subclass is substantially the same in scope as ECLA classification H04N 7/015B2M.

E7.008 Involving the resampling of the incoming video signal (EPO):

This subclass is indented under subclass E7.004. This subclass is substantially the same in scope as ECLA classification H04N 7/01A.

E7.009 Using a storage device with different write and read speed (EPO):

This subclass is indented under subclass E7.004. This subclass is substantially the same in scope as ECLA classification H04N 7/01B.

E7.01 Using beam gun storage (EPO):

This subclass is indented under subclass E7.009. This subclass is substantially the same in scope as ECLA classification H04N 7/01B2.

E7.011 Using magnetic recording (EPO):

This subclass is indented under subclass E7.009. This subclass is substantially the same in scope as ECLA classification H04N 7/01B4.

E7.012 Involving interpolation processes (EPO):

This subclass is indented under subclass E7.004. This subclass is substantially the same in scope as ECLA classification H04N 7/01D.

E7.013 Involving the use of motion vectors (EPO):

This subclass is indented under subclass E7.012. This subclass is substantially the same in scope as ECLA classification H04N 7/01D4.

E7.014 Dependent on presence/absence of motion, e.g., of motion zones (EPO):

This subclass is indented under subclass E7.012. This subclass is substantially the same in scope as ECLA classification H04N 7/01D2.

E7.015 One of the standards corresponding to a cinematograph film standard (EPO):

This subclass is indented under subclass E7.004. This subclass is substantially the same in scope as ECLA classification H04N 7/01F.

E7.016 One of the standards being a high definition standard (EPO):

This subclass is indented under subclass E7.004. This subclass is substantially the same in scope as ECLA classification H04N 7/01H.

E7.017 Systems for the transmission of digital nonpicture data, e.g., of text during the active part of a television frame (EPO):

This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/025.

SEE OR SEARCH THIS SUBCLASS:

E7.031, for the transmission of non-picture data during the vertical blanking interval only.

E7.018 Display systems therefor (EPO):

This subclass is indented under subclass E7.017. This subclass is substantially the same in scope as ECLA classification H04N 7/025D.

E7.019 Subscription systems therefor (EPO):

This subclass is indented under subclass E7.017. This subclass is substantially the same in scope as ECLA classification H04N 7/03.

E7.02 Circuits for the digital non-picture data signal, e.g., for slicing of the data signal, for regeneration of the data-clock signal, for error detection or correction of the data signal (EPO):

This subclass is indented under subclass E7.017. This subclass is substantially the same in scope as ECLA classification H04N 7/035.

E7.021 For regeneration of the clock signal (EPO):

This subclass is indented under subclass E7.02. This subclass is substantially the same in scope as ECLA classification H04N 7/035C.

E7.022 For discrimination of the binary level of the digital data, e.g., amplitude slicers (EPO):

This subclass is indented under subclass E7.02. This subclass is substantially the same in scope as ECLA classification H04N 7/035D.

E7.023 For error detection or correction (EPO):

This subclass is indented under subclass E7.02. This subclass is substantially the same in scope as ECLA classification H04N 7/035E.

E7.024 Systems for the simultaneous or sequential transmission of more than one television signal, e.g. additional information signals, the signals occupying wholly or partially the same frequency band (EPO):

This subclass is indented under subclass E7.001 This subclass is substantially the same in scope as ECLA classification H04N 7/08.

(1) Note. The more than one television signal of this subclass type may share the same frequency band by, for example, time division.

E7.025 The additional information signals being transmitted by means of a subcarrier (EPO):

This subclass is indented under subclass E7.024. This subclass is substantially the same in scope as ECLA classification H04N 7/081.

E7.026 With signal insertion during the vertical and the horizontal blanking interval (EPO):

This subclass is indented under subclass E7.024. This subclass is substantially the same in scope as ECLA classification H04N 7/083.

(1) Note. An example of signals of this subclass type is MAC data signals.

E7.027 With signal insertion during the horizontal blanking interval (EPO):

This subclass is indented under subclass E7.024. This subclass is substantially the same in scope as ECLA classification H04N 7/084.

E7.028 The inserted signal being digital (EPO):

This subclass is indented under subclass E7.027. This subclass is substantially the same in scope as ECLA classification H04N 7/085.

E7.029 The signal being time-compressed before its insertion and subsequently decompressed at reception (EPO):

This subclass is indented under subclass E7.028. This subclass is substantially the same in scope as ECLA classification H04N 7/085B.

E7.03 With signal insertion during the vertical blanking interval (EPO):

This subclass is indented under subclass E7.024. This subclass is substantially the same in scope as ECLA classification H04N 7/087.

E7.031 The inserted signal being digital (EPO):

This subclass is indented under subclass E7.03. This subclass is substantially the same in scope as ECLA classification H04N 7/088.

E7.032 The signal being time-compressed before its insertion and subsequently decompressed at reception (EPO):

This subclass is indented under subclass E7.031. This subclass is substantially the same in scope as ECLA classification H04N 7/088A.

E7.033 For the transmission of character code signals, e.g., for teletext (EPO):

This subclass is indented under subclass E7.031. This subclass is substantially the same in scope as ECLA classification H04N 7/088B.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E7.020, for circuits for the digital non-picture data signal.

E7.034 For the transmission of additional display-information, e.g., menu for program or channel selection (EPO):

This subclass is indented under subclass E7.031. This subclass is substantially the same in scope as ECLA classification H04N 7/088D.

E7.035 For the transmission of subtitles (EPO):

This subclass is indented under subclass E7.034. This subclass is substantially the same in scope as ECLA classification H04N 7/088D2.

E7.036 For the transmission of program or channel identifying signals (EPO):

This subclass is indented under subclass E7.031. This subclass is substantially the same in scope as ECLA classification H04N 7/088P.

E7.037 Subscription systems therefor (EPO):

This subclass is indented under subclass E7.031. This subclass is substantially the same in scope as ECLA classification H04N 7/088S.

E7.038 Using frequency interleaving, e.g., with precision offset (EPO):

This subclass is indented under subclass E7.024. This subclass is substantially the same in scope as ECLA classification H04N 7/08A.

E7.039 The signals being two or more video signals (EPO):

This subclass is indented under subclass E7.024. This subclass is substantially the same in scope as ECLA classification H04N 7/08C.

E7.04 Systems for the transmission of one television signal, i.e., both picture and sound, by a single carrier (EPO):

This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/04.

E7.041 The carrier being frequency modulated (EPO):

This subclass is indented under subclass E7.04. This subclass is substantially the same in scope as ECLA classification H04N 7/045

E7.042 Systems for the simultaneous transmission of one television signal, i.e., both picture and sound, by more than one carrier (EPO):

This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/06.

E7.043 Simultaneous transmission of separate parts of one picture (EPO):
This subclass is indented under subclass E7.042. This subclass is substantially the same in scope as ECLA classification H04N 7/06B.

E7.044 The carriers being allocated to more than one television channel (EPO):
This subclass is indented under subclass E7.042. This subclass is substantially the same in scope as ECLA classification H04N 7/06C.

E7.045 Systems in which the television signal is transmitted via one channel or a plurality of parallel channels, the bandwidth of each channel being less than the bandwidth of the television signal (EPO):
This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/12.

SEE OR SEARCH THIS CLASS:

E3.001, for special scanning.

E7.004, high definition television systems.

E7.046 Involving expansion and subsequent compression of a signal segment, e.g., a frame, a line (EPO):
This subclass is indented under subclass E7.045. This subclass is substantially the same in scope as ECLA classification H04N 7/12C.

E7.047 The signal segment being a picture element (EPO):
This subclass is indented under subclass E7.046 This subclass is substantially the same in scope as ECLA classification H04N 7/12C2

E7.048 Systems in which different parts of the picture signal frequency band are individually processed, e.g., suppressed, transposed (EPO):
This subclass is indented under subclass E7.045. This subclass is substantially the same in scope as ECLA classification H04N 7/12D.

E7.049 Adaptations for transmission by electric cable (EPO):
This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/10.

E7.05 For domestic distribution (EPO):
This subclass is indented under subclass E7.049. This subclass is substantially the same in scope as ECLA classification H04N 7/10H.

E7.051 The cable being constituted by a pair of wires (EPO):
This subclass is indented under subclass E7.049. This subclass is substantially the same in scope as ECLA classification H04N 7/10W.

E7.052 Circuits therefor, e.g., noise reducers, equalizers, amplifiers (EPO):
This subclass is indented under subclass E7.049. This subclass is substantially the same in scope as ECLA classification H04N 7/10C

E7.053 Switchers or splitters (EPO):
This subclass is indented under subclass E7.052 This subclass is substantially the same in scope as ECLA classification H04N 7/10C2

E7.054 Secrecy systems; Subscription systems (EPO):
This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/16.

E7.055 Systems rendering the television signal unintelligible and subsequently intelligible (EPO):
This subclass is indented under subclass E7.054. This subclass is substantially the same in scope as ECLA classification H04N 7/167.

E7.056 Providing digital key or authorization information for generation or regeneration of the scrambling sequence (EPO):
This subclass is indented under subclass E7.055 This subclass is substantially the same in scope as ECLA classification H04N 7/167D.

E7.057 Systems operating in the time domain of the television signal (EPO):
This subclass is indented under subclass E7.055. This subclass is substantially the same in scope as ECLA classification H04N 7/169.

E7.058 By displacing synchronization signals relative to active picture signals or vice versa (EPO):
This subclass is indented under subclass E7.057. This subclass is substantially the same in scope as ECLA classification H04N 7/169B.

E7.059 By changing or reversing the order of active picture signal portions (EPO):
This subclass is indented under subclass E7.057. This subclass is substantially the same in scope as ECLA classification H04N 7/169C.

E7.06 Authorizing the user terminal, e.g., by paying; registering the use of a subscription channel, e.g. billing (EPO):
This subclass is indented under subclass E7.054. This subclass is substantially the same in scope as ECLA classification H04N 7/16E.

E7.061 By receiver means only (EPO):
This subclass is indented under subclass E7.06. This subclass is substantially the same in scope as ECLA classification H04N 7/16E2.

E7.062 Coin-freed apparatus (EPO):
This subclass is indented under subclass E7.061. This subclass is substantially the same in scope as ECLA classification H04N 7/16E2B.

E7.063 Centralized control of user terminal; registering at central (EPO):
This subclass is indented under subclass E7.06. This subclass is substantially the same in scope as ECLA classification H04N 7/16E3.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E7.074, for centralized control of user terminal subsequent to an upstream request signal.

E7.070 , for registering at central by two-way working.

E7.064 Constructional details of the subscriber equipment (EPO):
This subclass is indented under subclass E7.054. This subclass is substantially the same in scope as ECLA classification H04N 7/16D.

E7.065 Passage/non-passage of the television signal, e.g., jamming, band suppression (EPO):

This subclass is indented under subclass E7.054. This subclass is substantially the same in scope as ECLA classification H04N 7/16F.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E7.055, for scrambling and descrambling.

E7.066 Systems operating in the amplitude domain of the television signal (EPO):

This subclass is indented under subclass E7.065. This subclass is substantially the same in scope as ECLA classification H04N 7/171.

E7.067 By modifying synchronization signals (EPO):

This subclass is indented under subclass E7.066. This subclass is substantially the same in scope as ECLA classification H04N 7/171B.

E7.068 By inverting the polarity of active picture signal portions (EPO):

This subclass is indented under subclass E7.066. This subclass is substantially the same in scope as ECLA classification H04N 7/171C.

E7.069 With two-way working, e.g., subscriber sending a program selection signal (EPO):

This subclass is indented under subclass E7.054. This subclass is substantially the same in scope as ECLA classification H04N 7/173.

E7. 07 Transmission or handling of upstream communications (EPO):

This subclass is indented under subclass E7.069. This subclass is substantially the same in scope as ECLA classification H04N 7/173B.

E7.071 Direct or substantially direct transmission and handling of requests (EPO):

This subclass is indented under subclass E7.07. This subclass is substantially the same in scope as ECLA classification H04N 7/173B2.

E7.072 With deferred transmission or handling of upstream communications (EPO):

This subclass is indented under subclass E7.070. This subclass is substantially the same in scope as ECLA classification H04N 7/173B3.

E7.073 Handling of requests in head-ends (EPO):

This subclass is indented under subclass E7.07. This subclass is substantially the same in scope as ECLA classification H04N 7/173B4.

E7.074 Control of the passage of the selected program (EPO):

This subclass is indented under subclass E7.069. This subclass is substantially the same in scope as ECLA classification H04N 7/173C.

E7.075 In an intermediate station common to a plurality of user terminals (EPO):

This subclass is indented under subclass E7.074. This subclass is substantially the same in scope as ECLA classification H04N 7/173C2.

E7.076 At or near the user terminal (EPO):

This subclass is indented under subclass E7.074. This subclass is substantially the same in scope as ECLA classification H04N 7/173C3.

E7.077 Systems for two-way working (EPO):

This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/14.

E7.078 Between two video terminals, e.g., videophone (EPO):
This subclass is indented under subclass E7.077. This subclass is substantially the same in scope as ECLA classification H04N 7/14A.

E7.079 Constructional details of the terminal equipment, e.g., arrangements of the camera and the display (EPO):
This subclass is indented under subclass E7.078. This subclass is substantially the same in scope as ECLA classification H04N 7/14A2.

E7.08 Camera and display on the same optical axis, e.g., optically multiplexing the camera and display for eye to eye contact (EPO):
This subclass is indented under subclass E7.079. This subclass is substantially the same in scope as ECLA classification H04N 7/14A2B.

E7.081 Communication arrangements, e.g., identifying the communication as a video-communication, intermediate storage of the signals (EPO):
This subclass is indented under subclass E7.078. This subclass is substantially the same in scope as ECLA classification H04N 7/14A3.

E7.082 Interfacing a video terminal to a particular transmission medium, e.g., ISDN (EPO):
This subclass is indented under subclass E7.078. This subclass is substantially the same in scope as ECLA classification H04N 7/14A4.

E7.083 Conference systems (EPO):
This subclass is indented under subclass E7.077. This subclass is substantially the same in scope as ECLA classification H04N 7/15.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E7.078, for video-terminal details.

E7. 084 Multipoint control units therefor (EPO):
This subclass is indented under subclass E7.083. This subclass is substantially the same in scope as ECLA classification H04N 7/15M.

E7.085 Closed circuit television systems, i.e., systems in which the signal is not broadcast (EPO):
This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/18.

E7.086 For receiving images from a plurality of remote sources (EPO):
This subclass is indented under subclass E7.085. This subclass is substantially the same in scope as ECLA classification H04N 7/18C.

E7.087 For receiving images from a single remote source (EPO):
This subclass is indented under subclass E7.085. This subclass is substantially the same in scope as ECLA classification H04N 7/18D.

E7.088 From a mobile camera, e.g., for remote control (EPO):
This subclass is indented under subclass E7.087. This subclass is substantially the same in scope as ECLA classification H04N 7/18D2.

E7.089 Video door telephones (EPO):
This subclass is indented under subclass E7.087. This subclass is substantially the same in scope as ECLA classification H04N 7/18D3.

E7.09 Capturing isolated or intermittent images triggered by the occurrence of a predetermined event, e.g., an object reaching a predetermined position (EPO):
This subclass is indented under subclass E7.085. This subclass is substantially the same in scope as ECLA classification H04N 7/18E.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E5.049, for signal generation from motion picture films.

E7.091 Special television systems not provided for by E7.002 to E7.085 (EPO):
This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/00B.

E7.092 Using at least one opto-electrical conversion device (EPO):
This subclass is indented under subclass E7.091. This subclass is substantially the same in scope as ECLA classification H04N 7/00B3.

E7.093 Adaptations for transmission via a GHz frequency band, e.g., via satellite (EPO):
This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/20.

E7.094 Adaptations for optical transmission (EPO):
This subclass is indented under subclass E7.001. This subclass is substantially the same in scope as ECLA classification H04N 7/22.

E9.001 DETAILS OF COLOR TELEVISION SYSTEMS (EPO):
This subclass provides for details of television methods and devices wherein the picture signal includes portions indicating the existing color of an original object or scene. This subclass is substantially the same in scope as ECLA classification H04N 9/00.

E9.002 Picture signal generators (EPO):
This subclass is indented under subclass E9.001. This subclass is substantially the same in scope as ECLA classification H04N 9/04.

E9.003 With one pick-up device only (EPO):
This subclass is indented under subclass E9.002. This subclass is substantially the same in scope as ECLA classification H04N 9/07.

E9.004 Whereby the color signals are characterized by their phase (EPO):
This subclass is indented under subclass E9.003. This subclass is substantially the same in scope as ECLA classification H04N 9/077.

E9.005 Whereby the color signals are characterized by their frequency (EPO):
This subclass is indented under subclass E9.003. This subclass is substantially the same in scope as ECLA classification H04N 9/083.

E9.006 With more than one pick-up device (EPO):
This subclass is indented under subclass E9.002. This subclass is substantially the same in scope as ECLA classification H04N 9/09.

E9.007 Systems for avoiding or correcting misregistration of video signals (EPO):
This subclass is indented under subclass E9.006. This subclass is substantially the same in scope as ECLA classification H04N 9/093.

E9.008 Optical arrangements associated therewith, e.g., for beam-splitting, for color correction (EPO):

This subclass is indented under subclass E9.006. This subclass is substantially the same in scope as ECLA classification H04N 9/097.

E9.009 Scanning of color motion picture films, e.g., for telecine (EPO):

This subclass is indented under subclass E9.002. This subclass is substantially the same in scope as ECLA classification H04N 9/11.

E9.01 Using solid-state devices (EPO):

This subclass is indented under subclass E9.002. This subclass is substantially the same in scope as ECLA classification H04N 9/04B.

E9.011 Using optical-mechanical scanning means only (EPO):

This subclass is indented under subclass E9.002. This subclass is substantially the same in scope as ECLA classification H04N 9/10.

E9.012 Picture reproducers (EPO):

This subclass is indented under subclass E9.001. This subclass is substantially the same in scope as ECLA classification H04N 9/12.

E9.013 Using optical-mechanical scanning means only (EPO):

This subclass is indented under subclass E9.012. This subclass is substantially the same in scope as ECLA classification H04N 9/14.

E9.014 Using cathode ray tubes (EPO):

This subclass is indented under subclass E9.012. This subclass is substantially the same in scope as ECLA classification H04N 9/16.

E9.015 With variable depth of penetration of electron beam into the luminescent layer, e.g., penetrons (EPO):

This subclass is indented under subclass E9.014. This subclass is substantially the same in scope as ECLA classification H04N 9/27.

E9.016 Using separate electron beams for the primary color signals (EPO):

This subclass is indented under subclass E9.014. This subclass is substantially the same in scope as ECLA classification H04N 9/18.

E9.017 With more than one beam in a tube (EPO):

This subclass is indented under subclass E9.016. This subclass is substantially the same in scope as ECLA classification H04N 9/20.

E9.018 Using the same beam for more than one primary color information (EPO):

This subclass is indented under subclass E9.014. This subclass is substantially the same in scope as ECLA classification H04N 9/22.

E9.019 Using means, integral with, or external to, the tube, for producing signal indicating instantaneous beam position (EPO):

This subclass is indented under subclass E9.018. This subclass is substantially the same in scope as ECLA classification H04N 9/24.

E9.02 Using electron-optical color selection means, e.g., line grid, deflection means in or near the gun or near the phosphor screen (EPO):

This subclass is indented under subclass E9.018. This subclass is substantially the same in scope as ECLA classification H04N 9/26.

E9.021 Arrangements for convergence or focusing (EPO):
This subclass is indented under subclass E9.014. This subclass is substantially the same in scope as ECLA classification H04N 9/28.

E9.022 Using quadruple lenses (EPO):
This subclass is indented under subclass E9.021. This subclass is substantially the same in scope as ECLA classification H04N 9/285.

E9.023 Using demagnetization or compensation of external magnetic fields (EPO):
This subclass is indented under subclass E9.014. This subclass is substantially the same in scope as ECLA classification H04N 9/29.

E9.024 Using solid-state color display devices (EPO):
This subclass is indented under subclass E9.012. This subclass is substantially the same in scope as ECLA classification H04N 9/30.

E9.025 Projection devices for color picture display (EPO):
This subclass is indented under subclass E9.012. This subclass is substantially the same in scope as ECLA classification H04N 9/31.

E9.026 Using laser beams scanning the display screen (EPO):
This subclass is indented under subclass E9.025. This subclass is substantially the same in scope as ECLA classification H04N 9/31L.

E9.027 Using light modulating optical valves (EPO):
This subclass is indented under subclass E9.025. This subclass is substantially the same in scope as ECLA classification H04N 9/31V.

E9.028 Conversion of monochrome picture signals to color picture signals for color picture display (EPO):
This subclass is indented under subclass E9.001. This subclass is substantially the same in scope as ECLA classification H04N 9/43.

E9.029 Color synchronization (EPO):
This subclass is indented under subclass E9.001. This subclass is substantially the same in scope as ECLA classification H04N 9/44.

E9.03 Generation or recovery of color sub-carriers (EPO):
This subclass is indented under subclass E9.029. This subclass is substantially the same in scope as ECLA classification H04N 9/45.

E9.031 Generation of color burst signals; Insertion of color burst signals in color picture signals or separation of color burst signals from color picture signals (EPO):
This subclass is indented under subclass E9.029. This subclass is substantially the same in scope as ECLA classification H04N 9/455.

E9.032 Synchronization of the PAL-switch (EPO):
This subclass is indented under subclass E9.029. This subclass is substantially the same in scope as ECLA classification H04N 9/465.

E9.033 For sequential signals (EPO):
This subclass is indented under subclass E9.029. This subclass is substantially the same in scope as ECLA classification H04N 9/47.

E9.034 For mutually locking different synchronization sources (EPO):

This subclass is indented under subclass E9.029. This subclass is substantially the same in scope as ECLA classification H04N 9/475.

E9.035 Circuits for processing the brightness signal and the chrominance signal relative to each other, e.g., adjusting the phase of the brightness signal relative to the color signal, correcting differential gain or differential phase (EPO):

This subclass is indented under subclass E9.001. This subclass is substantially the same in scope as ECLA classification H04N 9/77.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E9.047, for circuits for matrixing.

E9.036 For separating the brightness signal or the chrominance signal from the color television signal, e.g., using comb filter (EPO):

This subclass is indented under subclass E9.035. This subclass is substantially the same in scope as ECLA classification H04N 9/78.

E9.037 Circuits for processing color signals (EPO):

This subclass is indented under subclass E9.001. This subclass is substantially the same in scope as ECLA classification H04N 9/64.

E9.038 Multi-standard receivers (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/64B.

E9.039 Multi-purpose receivers, e.g., for auxiliary information (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/64A.

E9.04 Hue control means, e.g., flesh tone control (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/64C.

E9.041 Beam current control means (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/64D.

E9.042 For image enhancement, e.g., vertical detail restoration, cross-color elimination, contour correction, chrominance trapping filters (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/64E.

E9.043 I.F amplifiers (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/64M.

E9.044 Video amplifiers (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/64V.

E9.045 For synchronous modulators (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/65.

E9.046 For synchronous demodulators (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/66.

E9.047 For matrixing (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/67.

E9.048 For color killing (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/70.

E9.049 Combined with color gain control (EPO):

This subclass is indented under subclass E9.048. This subclass is substantially the same in scope as ECLA classification H04N 9/71.

E9.05 For reinsertion of dc and slowly varying components of color signal (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/72.

E9.051 Color balance circuits, e.g., white balance circuits, color temperature control (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/73.

E9.052 For picture signal generators (EPO):

This subclass is indented under subclass E9.051. This subclass is substantially the same in scope as ECLA classification H04N 9/73B.

E9.053 For controlling the amplitude of color signals, e.g., automatic chroma control circuits (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/68.

E9.054 For modifying the color signals by gamma correction (EPO):

This subclass is indented under subclass E9.053. This subclass is substantially the same in scope as ECLA classification H04N 9/69.

E9.055 For obtaining special effects (EPO):

This subclass is indented under subclass E9.037. This subclass is substantially the same in scope as ECLA classification H04N 9/74.

E9.056 Chroma key (EPO):

This subclass is indented under subclass E9.055. This subclass is substantially the same in scope as ECLA classification H04N 9/75.

E9.057 For mixing of color signals (EPO):

This subclass is indented under subclass E9.055. This subclass is substantially the same in scope as ECLA classification H04N 9/76.

E11.001 COLOR TELEVISION SYSTEMS (EPO):

This main group provides for television methods and devices wherein the picture signal includes portions indicating the existing color of an original object or scene. This subclass is substantially the same in scope as ECLA classification H04N 11/00.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E**9.001,** for details of color television systems

E11.002 High definition systems (EPO):
This subclass is indented under subclass E11.001. This subclass is substantially the same in scope as ECLA classification H04N 11/00H.

E11.003 Involving two-channel transmission (EPO):
This subclass is indented under subclass E11.002. This subclass is substantially the same in scope as ECLA classification H04N 11/00H2.

E11.004 Involving bandwidth reduction, e.g., subsampling (EPO):
This subclass is indented under subclass E11.002. This subclass is substantially the same in scope as ECLA classification H04N 11/00H4.

E11.005 With transmission of the extra information by means of quadrature modulation (EPO):
This subclass is indented under subclass E11.002. This subclass is substantially the same in scope as ECLA classification H04N 11/00H6.

E11.006 With bandwidth reduction (EPO):
This subclass is indented under subclass E11.001. This subclass is substantially the same in scope as ECLA classification H04N 11/02.

E11.007 Transmission systems characterized by the manner in which the individual color picture signal components are combined (EPO):
This subclass is indented under subclass E11.001. This subclass is substantially the same in scope as ECLA classification H04N 11/06.

E11.008 Using sequential signals only (EPO):
This subclass is indented under subclass E11.007. This subclass is substantially the same in scope as ECLA classification H04N 11/08.

SEE OR SEARCH THIS CLASS, SUBCLASS:

E11.01 for dot sequential systems.

E11.009 In which color signals are inserted in the blanking interval of brightness signal (EPO):
This subclass is indented under subclass E11.008. This subclass is substantially the same in scope as ECLA classification H04N 11/10.

E11.01 Using simultaneous signals only (EPO):
This subclass is indented under subclass E11.007. This subclass is substantially the same in scope as ECLA classification H04N 11/12.

E11.011 In which one signal, modulated in phase and amplitude, conveys color information and a second signal conveys brightness information, e.g., NTSC-system (EPO):
This subclass is indented under subclass E11.01. This subclass is substantially the same in scope as ECLA classification H04N 11/14.

E11.012 The chrominance signal alternating in phase, e.g., PAL-system (EPO):
This subclass is indented under subclass E11.011. This subclass is substantially the same in scope as ECLA classification H04N 11/16.

E11.013 A resolution-increasing signal being multiplexed to the PAL-system signal, e.g., PAL-PLUS-system (EPO):

This subclass is indented under subclass E11.012. This subclass is substantially the same in scope as ECLA classification H04N 11/16P.

E11.014 Encoding means therefor (EPO):

This subclass is indented under subclass E11.012. This subclass is substantially the same in scope as ECLA classification H04N 11/16B.

E11.015 Decoding means therefor (EPO):

This subclass is indented under subclass E11.012. This subclass is substantially the same in scope as ECLA classification H04N 11/16C.

E11.016 Encoding means therefor (EPO):

This subclass is indented under subclass E11.011. This subclass is substantially the same in scope as ECLA classification H04N 11/14B.

E11.017 Decoding means therefor (EPO):

This subclass is indented under subclass E11.011. This subclass is substantially the same in scope as ECLA classification H04N 11/14C.

E11.018 Using simultaneous and sequential signals, e.g., SECAM-system (EPO):

This subclass is indented under subclass E11.007. This subclass is substantially the same in scope as ECLA classification H04N 11/18.

E11.019 Encoding means therefor (EPO):

This subclass is indented under subclass E11.018. This subclass is substantially the same in scope as ECLA classification H04N 11/18B.

E11.02 Decoding means therefor (EPO):

This subclass is indented under subclass E11.018. This subclass is substantially the same in scope as ECLA classification H04N 11/18C.

E11.021 Conversion of the manner in which the individual color picture signal components are combined, e.g., conversion of color television standards (EPO):

This subclass is indented under subclass E11.007. This subclass is substantially the same in scope as ECLA classification H04N 11/20.

E11.022 In which simultaneous signals are converted into sequential signals or vice versa (EPO):

This subclass is indented under subclass E11.021. This subclass is substantially the same in scope as ECLA classification H04N 11/22.

E13.001 STEREOSCOPIC TELEVISION SYSTEMS; DETAILS THEREOF (EPO):

This subclass provides for television methods and devices, including details thereof, wherein the picture signal includes information indicating the three-dimensional nature of the original object or scene. This subclass is substantially the same in scope as ECLA classification H04N 13/00.

E13.002 Systems where the three-dimensional effect is obtained by means of at least two 2D image signals from different viewpoint locations representing the interocular distance (EPO):

This subclass is indented under subclass E13.001. This subclass is substantially the same in scope as ECLA classification H04N 13/00S.

E13.003 Stereoscopic image signal generation (EPO):

This subclass is indented under subclass E13.002. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2.

E13.004 Using a stereoscopic image camera (EPO):

This subclass is indented under subclass E13.003. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A.

E13.005 Having a single 2D image pickup sensor (EPO):

This subclass is indented under subclass E13.004. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A1.

E13.006 Using spectral multiplexing, i.e., simultaneously capturing several geometrical viewpoints separated by different spectral characteristics (EPO):

This subclass is indented under subclass E13.005. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A1B.

E13.007 Using spatial multiplexing, i.e., simultaneously capturing several geometrical viewpoints on different parts of the image pickup sensor (EPO):

This subclass is indented under subclass E13.005. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A1D.

E13.008 Using the relative movement between camera and object (EPO):

This subclass is indented under subclass E13.005. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A1M.

E13.009 Using temporal multiplexing, i.e., alternatively capturing several geometrical viewpoints separated in time (EPO):

This subclass is indented under subclass E13.005. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A1A.

E13.01 Having a parallax barrier (EPO):

This subclass is indented under subclass E13.005. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A1P.

E13.011 Having a fly-eye lenticular screen (EPO):

This subclass is indented under subclass E13.005. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A1T.

E13.012 Having a lenticular screen (EPO):

This subclass is indented under subclass E13.005. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A1S.

E13.013 Having a varifocal lens or mirror (EPO):

This subclass is indented under subclass E13.005. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A1V.

E13.014 Having two 2D image pickup sensors representing the interocular distance (EPO):

This subclass is indented under subclass E13.004. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A2.

E13.015 Having more than two 2D image pickup sensors (EPO):

This subclass is indented under subclass E13.004. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A3.

E13.016 Calibration aspects (EPO):

This subclass is indented under subclass E13.004. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A7.

E13.017 Having several image pickup sensors with different characteristics other than location or field of view, e.g., different resolution, color pickup characteristic or additional depth information or, where the image signals of one image pickup sensor are used to control the characteristics of at least one other image pickup sensor (EPO):

This subclass is indented under subclass E13.004. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A8.

E13.018 In combination with an electromagnetic radiation source for illuminating the subject (EPO):

This subclass is indented under subclass E13.004. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2A9.

E13.019 Color aspects (EPO):

This subclass is indented under subclass E13.003. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2B.

E13.02 With monoscopic to stereoscopic image conversion (EPO):

This subclass is indented under subclass E13.003. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2C.

E13.021 For generating stereoscopic image signals corresponding to more than two geometrical viewpoints (EPO):

This subclass is indented under subclass E13.003. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2L.

E13.022 From a 3D object model, e.g., computer generated stereoscopic image signals (EPO):

This subclass is indented under subclass E13.003. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2M.

E13.023The virtual viewpoint location being selected by the observer, e.g., observer tracking (EPO):

This subclass is indented under subclass E13.022. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2M1.

E13.024 For generating monoscopic and stereoscopic images or mixed monoscopic/stereoscopic images, e.g., monoscopic and stereoscopic image generating modes or a stereoscopic image overlay window in a monoscopic image background (EPO):

This subclass is indented under subclass E13.003. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2N.

E13.025 Synchronization or controlling aspects (EPO):

This subclass is indented under subclass E13.003. This subclass is substantially the same in scope as ECLA classification H04N 13/00S2Y.

E13.026 Stereoscopic image displaying (EPO):

This subclass is indented under subclass E13.002. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4.

E13.027 Using an autostereoscopic display, i.e., viewing by the user without the aid of special glasses (EPO):

This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4A.

E13.028 Using a fly-eye lenticular screen (EPO):

This subclass is indented under subclass E13.027. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4A2.

E13.029 Using a lenticular screen (EPO):

This subclass is indented under subclass E13.027. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4A1.

E13.03 Using a parallax barrier, e.g., spatial light modulator (EPO):

This subclass is indented under subclass E13.027. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4A3.

E13.031Using an array of controllable light sources or a moving aperture or light source (EPO):

This subclass is indented under subclass E13.027. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4A7.

E13.032 Using a varifocal lens or mirror (EPO):

This subclass is indented under subclass E13.027. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4A9.

E13.033 Color aspects (EPO):

This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4B.

E13.034Calibration aspects (EPO):

This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4C.

E13.035 Using a digital micro mirror device (DMD) (EPO):

This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4E.

E13.036 For viewing by the user with the aid of special glasses or head mounted displays (HMD), i.e., stereoscopic displaying (EPO):

This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4G.

E13.037 With spectral multiplexing, i.e., simultaneously displaying left and right images separated using glasses with different spectral characteristics, e.g., anaglyph method or Pullfrich method (EPO):

This subclass is indented under subclass E13.036. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4G1.

E13.038 With polarization multiplexing, i.e., simultaneously displaying left and right images separated using glasses with different polarizing characteristics (EPO):
This subclass is indented under subclass E13.036. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4G3.

E13.039 With spatial multiplexing, i.e., simultaneously displaying left and right images on different parts of the display screen and using glasses to optically recombine the stereoscopic image, e.g., with prisms or mirrors (EPO):
This subclass is indented under subclass E13.036. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4G5.

E13.04 With temporal multiplexing, i.e., alternatively displaying left and right images separated in time and using glasses to alternatively block the right and left eye (EPO):
This subclass is indented under subclass E13.036. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4G7.

E13.041 With head mounted left-right displays (EPO):
This subclass is indented under subclass E13.036. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4G9.

E13.042 Using a half transparent mirror or prism (EPO):
This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4H.

E13.043 For displaying simultaneously more than two geometrical viewpoints, i.e., look-around effect without observer tracking (EPO):
This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4L.

E13.044 For displaying monoscopic and stereoscopic images or mixed monoscopic/stereoscopic images, e.g., monoscopic and stereoscopic image displaying modes or a stereoscopic image overlay window in a monoscopic image background (EPO):
This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4M.

E13.045 Using observer tracking (EPO):
This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4T.

E13.046 For several observers (EPO):
This subclass is indented under subclass E13.045. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4T1.

E13.047 For tracking with gaze detection, i.e., detecting the lines of sight of the observers eyes (EPO):
This subclass is indented under subclass E13.045. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4T11.

E13.048 For tracking with variable interoccular distance or rotational head movements around the vertical axes (EPO):
This subclass is indented under subclass E13.045. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4T2.

E13.049 For tracking forward-backward translational head movements, i.e., longitudinal movements (EPO):

This subclass is indented under subclass E13.045. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4T3.

E13.05 For tracking left-right translational head movements, i.e., lateral movements (EPO):

This subclass is indented under subclass E13.045. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4T5.

E13.051 For tracking rotational head movements in a plane parallel to the screen (EPO):

This subclass is indented under subclass E13.045. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4T7.

E13.052 For tracking vertical translational head movements (EPO):

This subclass is indented under subclass E13.045. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4T9.

E13.053 Alternating rapidly the location of the left-right image components on the display screen (EPO):

This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4U.

E13 .054 Using a volumetric display, i.e., systems where the image is built up from picture elements distributed over a volume (EPO):

This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4V.

E13.055 The picture elements emitting light where a pair of light beams intersect in a transparent material (EPO):

This subclass is indented under subclass E13.054. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4V1.

E13.056 The volume being generated by a moving, e.g., vibrating or rotating, surface (EPO):

This subclass is indented under subclass E13.054. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4V3.

E13.057 With depth sampling, i.e., the volume being constructed from a stack or sequence of 2D image planes (EPO):

This subclass is indented under subclass E13.054. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4V5.

E13.058 Using an image projection screen (EPO):

This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4P.

E13.059 Synchronization or controlling aspects (EPO):

This subclass is indented under subclass E13.026. This subclass is substantially the same in scope as ECLA classification H04N 13/00S4Y.

E13.06 Stereoscopic image signal coding, multiplexing, processing, recording or transmission (EPO):

This subclass is indented under subclass E13.002. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6.

E13.061 Color aspects (EPO):

This subclass is indented under subclass E13.06. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6B.

E13.062 Coding or decoding stereoscopic image signals (EPO):

This subclass is indented under subclass E13.06. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6C.

E13.063 Mixing stereoscopic image signals (EPO):

This subclass is indented under subclass E13.06. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6M.

E13.064 Processing stereoscopic image signals (EPO):

This subclass is indented under subclass E13.06. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6P.

E13.065 Transformation of stereoscopic image signals corresponding to virtual viewpoints, e.g., spatial image interpolation (EPO):

This subclass is indented under subclass E13.064. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6P1.

E13.066 The virtual viewpoint location being selected by the observer, e.g., observer tracking with look around effect (EPO):

This subclass is indented under subclass E13.065. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6P1V.

E13.067 Improving the 3D impression of a displayed stereoscopic image, e.g., with filtering or addition of monoscopic depth cues (EPO):

This subclass is indented under subclass E13.064. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6P3.

E13.068 Format conversion of stereoscopic images, e.g., frame-rate, size,... (EPO):

This subclass is indented under subclass E13.064. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6P5.

E13.069 Equalizing the characteristics of different image components in stereoscopic images, e.g., average brightness or color balance (EPO):

This subclass is indented under subclass E13.064. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6P7.

E13.07 Switching stereoscopic image signals (EPO):

This subclass is indented under subclass E13.06. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6S.

E13.071 Transmission of stereoscopic image signals (EPO):

This subclass is indented under subclass E13.06. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6T.

E13.072 Multiplexing or demultiplexing different image signal components in stereoscopic image signals (EPO):

This subclass is indented under subclass E13.06. This subclass is substantially the same in scope as ECLA classification H04N 13/00S6U.

E13.073 Synchronization or controlling aspects (EPO):

This subclass is indented under subclass E13.06 . This subclass is substantially the same in scope as ECLA classification H04N 13/00S6Y.

E13.074 Picture signal generators (EPO):

This subclass is indented under subclass E13.001. This subclass is substantially the same in scope as ECLA classification H04N 13/02.

E13.075 Picture reproducers (EPO):

This subclass is indented under subclass E13.001. This subclass is substantially the same in scope as ECLA classification H04N 13/02.

E15.001 STEREOSCOPIC COLOR TELEVISION SYSTEMS; DETAILS THEREOF (EPO):

This subclass provides for television methods and devices, including details thereof, wherein the picture signal includes information indicating both the color and the three-dimensional nature of the original object or scene. This subclass is substantially the same in scope as ECLA classification H04N 15/00.

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E17.001 DIAGNOSIS, TESTING OR MEASURING FOR TELEVISION SYSTEMS OR THEIR DETAILS (EPO):

This group of subclasses provides for methods and devices separate from the television system or components thereof for monitoring, testing, or measuring parameters of the television system or its components. This subclass is substantially the same in scope as ECLA classification H04N 17/00.

E17.002 For television cameras (EPO):

This subclass is indented under subclass E17.001. This subclass is substantially the same in scope as ECLA classification H04N 17/00C.

E17.003 For digital television systems (EPO):

This subclass is indented under subclass E17.001. This subclass is substantially the same in scope as ECLA classification H04N 17/00N.

E17.004 For color television signals (EPO):

This subclass is indented under subclass E17.001. This subclass is substantially the same in scope as ECLA classification H04N 17/02.

E17.005 For receivers (EPO):

This subclass is indented under subclass E17.001. This subclass is substantially the same in scope as ECLA classification H04N 17/04.

E17.006 Self-contained testing apparatus (EPO):

This subclass is indented under subclass E17.005. This subclass is substantially the same in scope as ECLA classification H04N 17/04B.