1 **FAULT RECOVERY**
2 .Bypass inoperative element
3 ..In a ring or loop
4 ...Using a secondary ring or loop
5 ..Spare channel or standby optical fiber
6 .In a repeater system
7 .WDM
8 .TDM
9 **DIAGNOSTIC TESTING**
10 .Fault location
11 ..Repeater
12 ..Switch
13 ..Fiber or waveguide
14 ..WDM
15 ..Stop transmission or reduce power
16 .Test signal
17 .Fault detection
18 ..Repeater
19 ..Switch
20 ..Optical fiber
21 ...Determined by reflection from break in fiber
22 ..Transceiver
23 ..Transmitter
24 ..Receiver
25 .Determination of communication parameter
26 ..Signal to noise ratio
27 ..Bit error rate
28 ..Fiber characteristic
29 ...Dispersion
30 ..Using supervisory signal
31 ...Different wavelengths for diagnostic and communication
32 ...Pilot signal
33 ...Monitoring
34 ..WDM system
35 ..TDM system
36 ..Collision detection
37 ..Amplifier or repeater operation
38 ..Power
39 **INTERFERENCE SIGNAL TRANSMISSION OR ELIMINATION (E.G., JAMMING OR ANTIJAMMING)**
40 **EAVESDROPPING**
41 **DUPLEX**
42 .Wavelength division
43 **MULTIPLEX**
44 .Mode
45 .Optical switching
46 ..Hybrid
47 ...Time and wavelength
48 ..Wavelength
49 ...Router
50 ...Crossconnect
51 ...Including photonic packet switching
52 ..Time
53 ...Including delay
54 ...Including photonic packet switching
55 ..space
56 ...Crossconnect
57 ...Path finding or path routing
58 .Optical local area network (LAN)
59 ..Ring or loop
60 ..Bus
61 ..Active star
62 ...Repeater
63 ..Passive star
64 ...Repeater
65 .Polarization
66 .Broadcast and distribution system
67 ..Bidirectional
68 ..WDM
69 ...With variable frequency channel assignment
70 ...Hub or central office
71 ....Including subscribers
72 .....Bidirectional
73 ...Bus
74 .Hybrid
75 ..Time and wavelength division
76 .Subcarrier multiplexing
77 .Code division multiplexing
78 ..Multiple Access (e.g., CDMA)
79 .Wavelength division or frequency division (e.g., Raman, Brillouin, etc.)
80 ..Soliton
81 ..Dispersion compensation
82 ..By optical coupling
83 ...Add or drop
84 ....Grating
85 ....Filter
86 ...Prism
87 ...Grating
88 ...Lens
89 ..Multiple Access (e.g., WDMA)
90 ..Electrically controlled single source
91 ..Different sources
92 ...Including pumping

176 ..Modulation conversion
177 .Monitoring
178 .Specific optical waveguide
179 ..Soliton
180 .Specific optical elements
181 .Supervisory signal by repeater
182 **TRANSMITTER**
183 .Having particular modulation
184 ..Including polarization
185 ..Hybrid modulation
186 ..Intensity modulation
187 ..Frequency modulation
188 ..Phase modulation
189 ..Pulse modulation
190 ...Pulse-code
191 ...Pulse time
192 .Including compensation
193 ..Precompensation (e.g., prechirping, predistortion
194 ..For noise or distortion
195 ..Including feedback
196 ...For wavelength control
197 ...For power control
198 ...For modulator control
199 .Chirping
200 .Including optical waveguide
201 .Including specific optical elements
202 **RECEIVER**
203 .Homodyne
204 .Heterodyne
205 ..Including polarization
206 ...Having feedback
207 ..Specific optical elements
208 .Including postcompensation
209 ..Feedback
210 ..Amplitude
211 ..Intermodulation
212 .Including optical element (e.g., lens, mirror, etc.)
213 ..Having feedback
214 .Including optical waveguide

FOREIGN ART COLLECTIONS

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 **OPTICAL COMMUNICATION (359/109)**
FOR 101 .Diagnostic testing of optical communication (359/110)
FOR 102 .Interference signal transmission or elimination (e.g., jamming or antijamming (359/111)
FOR 103 .Eavesdropping (359/112)
FOR 104 .Duplex (359/113)
FOR 105 ..Wavelength division (359/114)
FOR 106 .Multiplex (359/115)
FOR 107 ..Mode (359/116)
FOR 108 ..Spatial or switching (359/117)
FOR 109 ..Optical local area network (LAN) (359/118)
FOR 110 ...Loop (359/119)
FOR 111 ...Active star (359/120)
FOR 112 ...Passive star (359/121)
FOR 113 ..Polarization (359/122)
FOR 114 ..Time and frequency division (359/123)
FOR 115 ..Wavelength division/frequency division (includes scattering, e.g., Raman, Brillouin, etc.) (359/124)
FOR 116 ...Subscriber system (359/125)
FOR 117 ....Optical source at only one station (359/126)
FOR 118 ...By optical coupling (359/127)
FOR 119 ....Switch (359/128)
FOR 120 ....Prism (359/129)
FOR 121 ....Grating (359/130)
FOR 122 ....Lens (359/131)
FOR 123 ...Single source, electrically controlled (359/132)
FOR 124 ...Different sources (359/133)
FOR 125 ....With pump (359/134)
FOR 126 ..Time division (359/135)
FOR 127 ...Multiple access (e.g., CSMA, CDMA) (359/136)
FOR 128 ...Subscriber system (359/137)
FOR 129 ...By specific optical element (359/138)
FOR 130 ....Optical switch (359/139)

FOR 131 ...With delay (359/140)
FOR 132 .Underwater (359/141)
FOR 133 .Remote control (359/142)
FOR 134 ..Bidirectional (i.e., monitoring or acknowledge) (359/143)
FOR 135 ..In industrial environment (e.g., robot control) (359/144)
FOR 136 ..With radio link (359/145)
FOR 137 ..With television or radio system (359/146)
FOR 138 ..Switching (359/147)
FOR 139 ..Plural functions (359/148)
FOR 140 .Photophone (359/149)
FOR 141 ..Transducer, per se (359/150)
FOR 142 ...With optical fiber or waveguide (359/151)
FOR 143 .Optical transceiver (359/152)
FOR 144 ..Including compensation (359/153)
FOR 145 .Transmitter and receiver system (359/154)
FOR 146 ..Presence detector (359/155)
FOR 147 ..With polarization (359/156)
FOR 148 ..One transmitter, plural receivers (359/157)
FOR 149 ..With synchronization (359/158)
FOR 150 ..With alignment between transmitter and receiver (359/159)
FOR 151 ..With pumping (359/160)
FOR 152 ..With compensation (359/161)
FOR 153 ..With electrical oscillator (359/162)
FOR 154 ..With optical circuit board (359/163)
FOR 155 ..Plural stations (359/164)
FOR 156 ...Address directing connections (359/165)
FOR 157 ...Unidirectional or loopback (359/166)
FOR 158 ...Central or master station (359/167)
FOR 159 ..Passive system (359/168)
FOR 160 ...Retroreflection (359/169)
FOR 161 ..Retroreflection (359/170)
FOR 162 ..Received signal supplies power distribution to diverse devices (359/171)
FOR 163 ..Satellite communications (359/172)
FOR 164 ..Including optical waveguide (359/173)
FOR 165 .Optical repeater system (359/174)
FOR 166 ..Demodulating (359/175)
FOR 167 ..Regenerative (359/176)
FOR 168 ...Monitoring (359/177)
FOR 169 ..Star (359/178)
FOR 170 ..Including optical waveguide (359/179)
FOR 171 .Transmitter (359/180)
FOR 172 ..With particular modulation (359/181)
FOR 173 ...Frequency modulation (359/182)
FOR 174 ...Phase modulation (359/183)
FOR 175 ...Pulse modulation (359/184)
FOR 176 ....Pulse-code (359/185)
FOR 177 ....Pulse time (359/186)
FOR 178 ..With feedback (359/187)
FOR 179 ..Including optical waveguide (359/188)
FOR 180 .Receiver (359/189)
FOR 181 ..Homodyne (359/190)
FOR 182 ..Heterodyne (359/191)
FOR 183 ...With polarization (359/192)
FOR 184 ..With optical element (e.g., lens, mirror, etc.) (359/193)
FOR 185 ..Automatic gain control (359/194)
FOR 186 ..With optical waveguide) (359/195)