

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

93	..Including feedback	136	.Including compensation
94	...Power control	137	.Including feedback
95	..Wavelength control	138	.Single device as transmitter and receiver
96	..Through free space		
97	..Repeater	139	.Including optical fiber or waveguide
98	.Time division		
99	..Multiple access (e.g., TDMA, CSMA)	140	<b>TRANSMITTER AND RECEIVER SYSTEM</b>
100	..Subscriber system	141	.Including optical waveguide
101	..By specific optical element	142	..Specific type of fiber or waveguide
102	..Including delay	143	...Multimode
103	..Through free space	144	...Monomode
104	<b>UNDERWATER</b>	145	...Redundant fibers
105	.Cable repeater	146	..Soliton
106	<b>REMOTE CONTROL</b>	147	..Dispersion compensation
107	.Bidirectional (i.e., monitoring or acknowledge)	148	...Using dispersion compensation optical fiber (e.g., DCOF)
108	..Interrogator system	149	...Using equalizing filter (e.g., interferometer, grating)
109	.In industrial environment or hazardous environment	150	...Using optical phase conjugation
110	..Through optical fiber or waveguide	151	.Presence detection
111	.Switching	152	.Including polarization
112	.Plural	153	.One transmitter, plural receivers
113	..Through optical fiber or waveguide	154	.Including synchronization
114	.Rotating part	155	..Clock recovery
115	<b>HYBRID COMMUNICATION SYSTEM (E.G., OPTICAL AND RF)</b>	156	.Including alignment between transmitter and receiver
116	.Including specific optical interface	157	.Including pumping
117	..Housing or mounting	158	.Including compensation
118	<b>OPTICAL COMMUNICATION OVER FREE SPACE</b>	159	..Reducing distortion or dispersion
119	.Compensation	160	..Using optical amplifier
120	..Power control	161	..Using delay
121	.Satellite system	162	.Including feedback from receiver
122	..Including alignment	163	.Including electrical oscillator
123	...Feedback control	164	.Including optical circuit board
124	..Space to space	165	.Plural stations
125	..Space to ground or ground to space	166	..Address directing connections
126	.Specific repeater	167	..Unidirectional or loopback
127	.In an office environment	167.5	..Central or master station
128	.Transceivers	168	.Passive system
129	..Including alignment	169	..Retroreflection
130	.Transmitter and receiver	170	.Retroreflection
131	..Including alignment	171	.Received signal supplies power distribution to diverse devices
132	<b>PHOTOPHONE</b>	172	.Including visible light modulation
133	.Specific transducer		
134	..Including optical fiber or waveguide	173	<b>OPTICAL REPEATER SYSTEM</b>
135	<b>OPTICAL TRANSCEIVER</b>	174	.Demodulating
		175	.Regenerative

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)