CPC COOPERATIVE PATENT CLASSIFICATION

H ELECTRICITY

(NOTE omitted)

H04 ELECTRIC COMMUNICATION TECHNIQUE (NOTE omitted)

H04J MULTIPLEX COMMUNICATION (transmission in general H04B; peculiar to transmission of digital information H04L 5/00; systems for the simultaneous or sequential transmission of more than one television signal H04N 7/08; in exchanges H04Q 11/00; stereophonic systems H04S)

NOTE

This subclass covers

- circuits or apparatus for combining or dividing signals for the purpose of transmitting them simultaneously or sequentially over the same transmission path;
- monitoring arrangements therefor.

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00	Frequency-division multiplex systems (H04J 14/00	1/16	• • Monitoring arrangements {(for transmission in
	takes precedence)		general H04B 17/00; for amplifiers H03F 1/52,
1/02	• Details		<u>H03F 1/523</u>)}
1/04	 Frequency-transposition arrangements {(modulation with carrier or side-band suppression <u>H03C 1/52</u>, <u>H03C 1/60</u>; single-band suppression <u>H04B 1/00</u>, <u>H04B 15/00</u>; telegraphic communication <u>H04L 27/02</u>, <u>H04L 25/49</u>; 	1/18	 in which all the carriers are amplitude-modulated (<u>H04J 1/02</u> takes precedence {in telephony <u>H04Q 11/02</u>, <u>H04Q 11/023</u>; in stereophony <u>H04H</u>; in telegraphy <u>H04L 5/06</u>; in telemetry <u>G08C 15/02</u>, <u>G08C 15/04</u>})
1/045	 transference of modulation from one carrier to another, e.g. frequency- changing <u>H03D 7/00</u>; demodulation or transference of modulation of modulated electromagnetic waves <u>H03D 9/00</u>)} {Filters applied to frequency transposition} 	1/20	 in which at least one carrier is angle-modulated (<u>H04J 1/02</u> takes precedence; FM without multiplex <u>H04B 1/00</u>, <u>H04B 14/006</u>, <u>H04B 15/00</u>; PSK <u>H04L 5/12</u>; impulse-modulation without multiplex <u>H04B 14/02</u>; time-division multiplexing for data transmission H04L 5/20 taken transmission
1/05	• • • using digital techniques		for data transmission <u>H04L 5/22</u> ; telemetry $C_{08C} = 15/06 = C_{08C} = 15/12$; telemetry H04O 11/00
1/06	 Arrangements for supplying the carrier waves {; Arrangements for supplying synchronisation 		<u>G08C 15/06</u> - <u>G08C 15/12</u> ; telephony <u>H04Q 11/00</u> , <u>H04Q 11/04</u> , <u>H04Q 11/0407</u>)
	signals (synchronisation in general <u>H03B;</u> frequency multiplication <u>H03B 19/00</u> , <u>H03B 21/00</u> ; mixing <u>H03D 7/00</u> , <u>H03D 9/00</u> ;	3/00	Time-division multiplex systems (H04J 14/00 takes precedence; relay systems H04B 7/14; selecting techniques H04Q)
	carrier supply H04L 5/10)}	3/02	• Details (electronic switching or gating H03K 17/00)
1/065	• • {Synchronisation of carrier sources at the receiving station with the carrier source at the transmitting station}	3/025	 {Filter arrangements (<u>H04J 3/08</u> takes precedence; filters <u>per se H03H 7/00</u>, H03H 9/00)}
1/08	• Arrangements for combining channels {(branching filters <u>H01P 1/213, H03H 7/46</u>)}	3/04	. Distributors combined with modulators
1/085	• • {Terminal station; Combined modulator and demodulator circuits}		or demodulators {(pulse distributors in general <u>H03K 5/15;</u> pulse counters <u>H03K 21/00</u> - <u>H03K 29/06;</u> for telegraphy
1/10	• Intermediate station arrangements, e.g. for branching, for tapping-off {(repeater circuits H04B 3/36, H04B 3/58; two-way amplifiers		H04L 5/22, H04L 13/00 - H04L 23/00, H04L 25/45; for telephony H04Q 11/04)}
	<u>H03F 3/62</u>)}	3/042	• • {Distributors with electron or gas discharge tubes}
1/12	• Arrangements for reducing cross-talk	3/045	• • • {Distributors with CRT}
	between channels {(in line transmission systems <u>H04B 3/32;</u> in cables or lines	3/047	• • {Distributors with transistors or integrated circuits}
1/14	 <u>H04B 3/26</u> - <u>H04B 3/30</u>} Arrangements providing for calling or supervisory signals 	3/06	 Synchronising arrangements {(for television systems <u>H04N 5/04;</u> bit-synchronisation <u>H04L 7/00</u>)}

3/0602	• • {Systems characterised by the synchronising information used}
3/0605	•••• {Special codes used as synchronising signal}
3/0608	• • • • {Detectors therefor, e.g. correlators, state machines}
3/0611	• • • • {PN codes (<u>H04J 3/0608</u> takes precedence)}
3/0614	• • • {the synchronising signal being characterised by the amplitude, duration or polarity}
3/0617	• • • {the synchronising signal being characterised by the frequency or phase}
3/062	 {Synchronisation of signals having the same nominal but fluctuating bit rates, e.g. using buffers (pulse-stuffing H04J 3/07; asynchronous-synchronous conversion H04L 5/24; speed conversion H04L 25/05; speed conversion in computers G06F 5/06)}
3/0623	 {Synchronous multiplexing systems, e.g. synchronous digital hierarchy/ synchronous optical network (SDH/SONET), synchronisation with a pointer process}
3/0626	 {plesiochronous multiplexing systems, e.g. plesiochronous digital hierarchy [PDH], jitter attenuators}
3/0629	• • • • {in a network, e.g. in combination with switching or multiplexing, slip buffers}
3/0632	{Synchronisation of packets and cells, e.g. transmission of voice via a packet network, circuit emulation service [CES] (queuing arrangements in packet switching elements <u>H04L 49/90</u> ; synchronising systems for the synchronous transmission of a pulse code modulated video signal with one or more other pulse code modulated signals
3/0635	H04N 7/56)} {Clock or time synchronisation in a network
2/0628	(timer in protocols <u>H04L 69/28</u>)}
3/0638	 Clock or time synchronisation among nodes; Internode synchronisation (synchronization for ring networks <u>H04L 12/422</u>; data switching networks with synchronous transmission <u>H04L 12/43</u>)
3/0641	•••• {Change of the master or reference, e.g. take-over or failure of the master}
3/0644	• • • • {External master-clock}
3/0647	•••• {Synchronisation among TDM nodes}
3/065	• • • • • {using timestamps}
3/0652	• • • • • {Synchronisation among time division
	multiple access [TDMA] nodes, e.g. time triggered protocol [TTP] (bus network with centralized control in which slots are of a TDMA packet structure <u>H04L 12/4035</u>)}
3/0655	• • • • • {using timestamps}
3/0658	Clock or time synchronisation among packet nodes }
3/0661	• • • • • {using timestamps}
3/0664	••••••••••••••••••••••••••••••••••••••
3/0664 3/0667	{Undirectional timestamps}
5/0007	NTP or PTP for compensation of
	clock drift and for compensation of propagation delays (arrangements for monitoring round trip delays in packet switching networks <u>H04L 43/0864</u>)}
3/067	{Details of the timestamp structure}

3/0673	••••• {using intermediate nodes, e.g. modification of a received timestamp before further transmission to the next packet node, e.g. including internal delay time or residence time into the packet}
3/0676	• • • • {Mutual}
3/0679	• • • {by determining clock distribution path in a network}
3/0682	• • • {by delay compensation, e.g. by compensation of propagation delay or variations thereof, by ranging}
0.000	
3/0685	{Clock or time synchronisation in a node; Intranode synchronisation}
2/0/09	
3/0688	• • • • {Change of the master or reference, e.g.
	take-over or failure of the master}
3/0691	•••• {Synchronisation in a TDM node}
3/0694	•••• {Synchronisation in a TDMA node, e.g.
	TTP}
3/0697	••••• {Synchronisation in a packet node}
3/07	• • • using pulse stuffing for systems with different
0,01	or fluctuating information rates {or bit rates}
2/072	
3/073	• • • {Bit stuffing, e.g. PDH}
3/076	• • • • {Bit and byte stuffing, e.g. SDH/PDH
	desynchronisers, bit-leaking}
3/08	. Intermediate station arrangements, e.g. for
	branching, for tapping-off
3/085	• • { for ring networks, e.g. SDH/SONET rings,
0,000	self-healing rings, meashed SDH/SONET
	networks}
2/10	
3/10	. Arrangements for reducing cross-talk between
	channels
3/12	Arrangements providing for calling or
	supervisory signals
3/125	• • • {One of the channel pulses or the
	synchronisation pulse is also used for
	transmitting monitoring or supervisory signals}
3/14	Monitoring arrangements {(for SDH/SONET
5/14	rings H04J 3/085)}
244	<u> </u>
3/16	• in which the time allocation to individual channels
	within a transmission cycle is variable, e.g. to
	accommodate varying complexity of signals, to
	vary number of channels transmitted (H04J 3/17,
	H04J 3/24 take precedence)
3/1605	• • {Fixed allocated frame structures}
3/1611	• • • {Synchronous digital hierarchy [SDH] or
	SONET (<u>H04J 3/1664</u> takes precedence for
	interactions with OTN)
2/1617	
3/1617	{carrying packets or ATM cells}
3/1623	• • • {Plesiochronous digital hierarchy [PDH]}
3/1629	• • • • {Format building algorithm}
3/1635	• • • {Format conversion, e.g. CEPT/US}
3/1641	• • • • {Hierarchical systems}
3/1647	• • • {Subrate or multislot multiplexing}
3/1652	{Optical Transport Network [OTN]}
3/1658	• • • • {carrying packets or ATM cells;
	(H04J 3/1664 takes precedence for payloads
	with different packet types)}
3/1664	• • • • {carrying hybrid payloads, e.g. different
	types of packets or carrying frames and
	packets in the paylaod}
3/167	• • • { interaction with SDH/SONET, e.g. carrying
	SDH/SONET frames, interfacing with SDH/
	SONET (<u>H04J 3/1664</u> takes precedence)}
	$\frac{110+3}{2} \frac{5}{100+} \text{ (arespiced effect)}$

3/1676	• • {Time-division multiplex with pulse-position,
2/1/02	pulse-interval, or pulse-width modulation}
3/1682	• • {Allocation of channels according to the instantaneous demands of the users,
	e.g. concentrated multiplexers, statistical
	multiplexers }
3/1688	• • • {the demands of the users being taken
	into account after redundancy removal,
	e.g. by predictive coding, by variable
	sampling (reducing bandwidth of signals
	in general <u>H04B 1/66;</u> in PCM-systems <u>H04B 14/046;</u> removal of redundancy in
	telegraph communication <u>H03M 7/30</u>)
3/1694	• • {Allocation of channels in TDM/TDMA
	networks, e.g. distributed multiplexers (Passive
	Optical Networks H04Q 11/0062)}
3/17	• in which the transmission channel allotted to a first
	user may be taken away and re-allotted to a second
	user if the first user becomes inactive, e.g. TASI {(speech analysis or identification G10L)}
3/172	{Digital speech interpolation, i.e. DSI}
3/172	 (Digital speech interpolation, i.e. DSI) (Speech activity or inactivity detectors (echo
5/1/5	suppressors H04B 3/20)}
3/177	• {Freeze-out systems, e.g. taking away active
	sources from transmission}
3/18	 using frequency compression and subsequent
2/20	expansion of the individual signals
3/20	• using resonant transfer
3/22	• in which the sources have different rates or codes {(simultaneous speech and digital data or video
	transmission <u>H04M 11/06;</u> see provisional also
	<u>H04J 3/16</u>)}
3/24	• in which the allocation is indicated by an
	address {the different channels being transmitted
	sequentially}(<u>H04J 3/17</u> takes precedence; in computers <u>G06F 12/00</u> , <u>G06F 13/00</u> {code
	multiplex systems <u>H04J 13/00</u> ; selecting techniques
	$\frac{1}{104}$, relay systems $\frac{104B}{7/14}$)
3/242	• • {the frames being of variable length}
3/245	• • {in which the allocation protocols between
	more than two stations share the same
	transmission medium (stations for satellite systems H04B 7/185)}
3/247	• {ATM or packet multiplexing}
3/26	• in which the information and the address are
0/20	simultaneously transmitted
4/00	Combined time-division and frequency-
4/00	division multiplex systems (<u>H04J 13/00</u> takes
	precedence {; data transmission H04L 5/26; telemetry
	<u>G08C 15/00</u> })
4/005	• {Transmultiplexing}
7/00	Multiplex systems in which the amplitudes or
	durations of the signals in individual channels are
	characteristic of those channels
7/02	• in which the polarity of the amplitude is characteristic
9/00	Multiplex systems in which each channel is
	represented by a different type of modulation of the carrier
11/00	Orthogonal multiplex systems, {e.g. using WALSH
2011/0002	codes}(<u>H04J 13/00</u> takes precedence)
2011/0003	• {Combination with other multiplexing techniques}

2011/0006	• • {with CDM/CDMA}
2011/0009	• {with FDM/FDMA}
2011/0013	• • {with TDM/TDMA}
2011/0016	• {with FDM/FDMA and TDM/TDMA}
2011/002	• {Delay multiplexing}
11/0023	• {Interference mitigation or co-ordination (direct sequence spread spectrum [DSSS] systems
	<u>H04B 1/7097;</u> frequency hopping H04B 1/713;
	allocation criteria for ingress interference avoidance
	H04L 5/0062; frequency allocation criteria
	for requirements on out-of-channel emissions
	H04L 5/0066; arrangements for removing
	intersymbol interference or baseband equalisers
	H04L 25/03006; peak power aspects in multicarrier modulation H04L 27/2614; power management
	<u>H04W 52/00;</u> traffic scheduling <u>H04W 72/54</u> ,
	H04W 72/541)}
11/0026	• {of multi-user interference}
11/003	• • • {at the transmitter (transmission to multiple
	receive units in multiple input multiple output
	[MIMO] H04B 7/0452; transmit antenna
	weighting <u>H04B 7/0615</u>)}
11/0033	• • • • {by pre-cancellation of known interference,
	e.g. using a matched filter, dirty paper coder or Thomlinson-Harashima precoder
	(correlative coding in synchronous or start-
	stop systems $H04L 25/497$)
11/0036	• • • {at the receiver}
11/004	{ using regenerative subtractive interference
	cancellation}
11/0043	•••• {by grouping or ordering the users}
11/0046	• • • {using joint detection algorithms}
11/005 11/0053	• • {of intercell interference}
11/0033	• • • {using co-ordinated multipoint transmission/ reception (co-ordinated antenna or beam-
	forming aspects <u>H04B 7/022</u>)}
11/0056	• • {Inter-base station aspects}
11/0059	• • • {Out-of-cell user aspects}
11/0063	• • {of multipath interference, e.g. Rake receivers}
11/0066	• {of narrowband interference (narrowband
11/00/0	interference reduction <u>H04B 1/1036</u>)}
11/0069	• {Cell search, i.e. determining cell identity [cell- ID] (design of multiplexing codes <u>H04J 13/00</u> ;
	processing access restriction or access information
	H04W 48/16; discovery of network devices for
	network data management H04W 8/005; sounding
	signals for channel estimation H04L 25/0226;
	structure of reference signals in multicarrier
	modulation systems <u>H04L 27/2613;</u> frame, time or carrier synchronisation in multicarrier modulation
	systems H04L 27/2655)}
11/0073	• • {Acquisition of primary synchronisation channel,
	e.g. detection of cell-ID within cell-ID group}
11/0076	• • {Acquisition of secondary synchronisation
	channel, e.g. detection of cell-ID group}
11/0079	• {Acquisition of downlink reference signals, e.g.
11/0083	detection of cell-ID}• {Multi-mode cell search, i.e. where several
11/0000	• • {Multi-mode cell search, i.e. where several modes or systems can be used, e.g. backwards
	compatible, dual mode or flexible systems}
11/0086	• {Search parameters, e.g. search strategy,
	accumulation length, range of search, thresholds
11/0000	(code acquisition in DSSS <u>H04B 1/7075</u>)}
11/0089	• • {Search hardware arrangements, e.g. sharing of correlators to reduce complexity}
	correlators to reduce complexity }

11/0093	• • {Neighbour cell search}	14/00				
2011/0096	• {Network synchronisation}					
13/00	Code division multiplex systems (for frequency hopping H04B 1/713)					
	NOTE	NOTE				
	When classifying in this group, any aspect					
	of spread spectrum techniques not specific to	14/002				
	frequency hopping, and which is considered to represent information of interest for search, may	14/005				
	also be classified in group $H04B 1/69$.	14/007				
12/0002		14/02				
13/0003	• {Code application, i.e. aspects relating to how codes are applied to form multiplexed channels}					
13/0007	• {Code type}					
	NOTE					
	Code type information should be classified in					
	addition to other relevant aspects. This should					
	also be done in cases where the other relevant					
	symbol refers to code type, e.g. <u>H04J 13/14</u> , H04J 12/20)	14/0201				
	<u>H04J 13/20</u>)	14/0202				
13/0011	• • {Complementary}	14/0204				
13/0014	• • • {Golay}					
13/0018	(Chaotic)	14/0205				
13/0022 13/0025	 . {PN, e.g. Kronecker} {M-sequences} 	14/0203				
13/0029	{Gold}					
13/0033	••• {Kasami}	14/0206				
2013/0037		14/0208				
13/004	• • {Orthogonal}	14/0209				
13/0044	• • • {OVSF [orthogonal variable spreading factor]}	14/021				
13/0048 13/0051	{Walsh}	10021				
13/0051	. {Orthogonal gold}. {ZCZ [zero correlation zone]}					
13/0059	• • {CAZAC [constant-amplitude and zero auto-					
	correlation]}					
13/0062	• • • • {Zadoff-Chu}					
13/0066	{GCL [generalized chirp-like] sequences}					
13/007 13/0074	. {LAS, i.e. LA, LS and LAS codes}{Code shifting or hopping}					
13/0074	 {Code shifting of hopping} {Multicode, e.g. multiple codes assigned to one 					
15/00//	user}					
2013/0081	• • {with FDM/FDMA}	14/0212				
2013/0085	• • {with TDM/TDMA}	14/0212				
2013/0088	• {with FDM/FDMA and TDM/TDMA}					
2013/0092 2013/0096	{Delay multiplexing} {Network synchronisation}					
13/10	Code generation					
13/102	• {Combining codes}					
13/105	• • • {by extending}					
13/107	• • • {by concatenation}					
13/12	Generation of orthogonal codes					
13/14	• Generation of codes with a zero correlation zone					
13/16 2013/165	Code allocationJoint allocation of code together with frequency					
2013/103	or time}					
13/18	Allocation of orthogonal codes					
13/20	having an orthogonal variable spreading factor					
	[OVSF]					
13/22	. Allocation of codes with a zero correlation zone					

02	• {Coherencemultiplexing}
05	• {Optical Code Multiplex}
07	• • {Orthogonal Optical Code Multiplex}
2	• Wavelength-division multiplex systems
	WARNING
	Group <u>H04J 14/02</u> is impacted by reclassification into groups <u>H04J 14/03</u> , <u>H04J 14/0305</u> and <u>H04J 14/0307</u> .
	All groups listed in this Warning should be considered in order to perform a complete search.
201	• • {Add-and-drop multiplexing}
202	• • { Arrangements therefor }
204	•••• {Broadcast and select arrangements, e.g. with an optical splitter at the input before adding or dropping}
205	• • • {Select and combine arrangements, e.g. with an optical combiner at the output after adding or dropping}
206	• • • • {Express channels arrangements}
208	• • • • {Interleaved arrangements}
209	• • • {Multi-stage arrangements, e.g. by cascading multiplexers or demultiplexers}
21	•••• {Reconfigurable arrangements, e.g. reconfigurable optical add/drop multiplexers [ROADM] or tunable optical add/drop multiplexers [TOADM]}
	WARNING
	Group <u>H04J 14/021</u> is impacted by reclassification into groups <u>H04J 14/02122</u> and <u>H04J 14/02126</u> . Groups <u>H04J 14/021</u> , <u>H04J 14/02122</u> and <u>H04J 14/02126</u> should be considered in order to perform a complete search.
212	••••• {using optical switches or wavelength selective switches [WSS]}
	WARNING
	Group <u>H04J 14/0212</u> is impacted by reclassification into groups

Optical multiplex systems

Group <u>H04J 14/00</u> is impacted by reclassification into groups <u>H04J 14/05</u> and <u>H04J 14/07</u>.

All groups listed in this Warning should be considered in order to perform a complete search.

WARNING

H04J 14/02122 and H04J 14/02126. Groups H04J 14/0212, H04J 14/02122 and H04J 14/02126 should be considered in order to perform a complete search.

Consideration WARNING Group IBd1 1402122 is incomplete pendag reclassification of documents from group IBd1 14021 and 11001 140212. Group Bd1 14021 and 11001 140212. Concept Fd01 14021, H01 140212 and H01 14021. Group Bd1 14021. Concept Fd01 14021, H01 140212 and H01 14021. Concept Fd01 14021, H01 140212 and H01 14021. Concept Fd01 14021, H01 140212 and H01 14021. Concept Fd01 14021. H01 14021. Concept Fd01 14021. H01 14021. Concept Fd01 14021. Group H01 14021. Concept Fd01 14021. Group H01 14021. Group H01 14021.	14/02122	{Colourless, directionless or	14/02216	{by gain equalization}
Group High J 42012 is incomplete pending reclassification of documents from group High J 4021 and High J 40212. Group High J 4021 and High J 40212. Group High J 4021. High J 40212. and High J 40212. and High J 40212. and High J 40212. High J 4021. Group High J 4021. High J 4021. (Authiests witch arrangements) High J 4021. WARNING Group High J 4021. Group High J 4021. Group High J 4021. (Jacca J High J 4021. Group High J 4021. (Jacca J High J 4021. Group High J 4021. (Jacca J High J 4021. Group High J 4021. (Jacca J High J 4021. Group High J 4021. (Jacca J High J 4021. Group High J 4021. (Jacca J High J 4021.		contentionless [CDC] arrangements}		WARNING
from groups H001 14021 and H001 140212. Groups H001 140212. Groups H001 140212. groups H001 140212. Groups H001 140212. Groups H001 140212. 1402102. Group H001 140212. H001 140212. 140212. Group H001 140212. Group H001 140212. 140212. Group H001 14021. Group H001 14021. 140212. Group H001 14021. Group H001 14022. 140213. Group H001 1402. Group H001 1402. 140213. Group H001 1402. H001 1402. 140213. H001 1402. H001 1402. 140213. Group H001 1402. H001 1402. 140214. H001 1402. H001 1402. 140215. H001 1402. H001 1402. 140214. H001 1402. H001 1402. 140215. H001 1402. H001 1402. 140217. H001 1402. Group H001 1402. 140214. H001 1402. Group H001 1402. 140217. H001 1402.		Group H04J 14/02122 is incomplete		pending reclassification of documents from
und H01 1402122 should be considered in order to perform a complete search. 1402218 (Contralized control) 1402126		from groups <u>H04J 14/021</u> and <u>H04J 14/0212</u> .		Groups <u>H04J 14/0221</u> and <u>H04J 14/02216</u> should be considered in order to perform a
Idual label l		and <u>H04J 14/02122</u> should be	14/02218	-
1402126		•		WARNING
WARNING pending reclassification of documents from group H041 14021 and H041 14021. pending reclassification of documents from group H041 14021 and H041 14021. Group H041 14021 and H041 14021. Group H041 14021. Group H041 14021. Group H041 14021. 140213	14/02126	••••• {Multicast switch arrangements}		
Group H041140212 is incomplete pending reclassification of documents from groups H041140212 and H041140212. Groups H041140212 and H041140212. Groups H041140212 is incomplete econsidered in order to perform a complete search. 140215 (Archivecture aspects) 140215 (Archivecture aspects) 140215 (Archivecture aspects) 140216 (Multi-degree architectures) 140220 (Multi-degree architectures) 140221 (Multi-degree architectures) 140222 (For interconnection of WDM optical networks) 140221 (For interconnection of WDM optical networks) 140222 (For interconnection of WDM optical networks) 140221 (For interconnection of WDM optical networks) 140222 (For interconnection of WDM optical networks) 140223 (Groups H041140221; MARNING 140224 (Warelength allocation, maintenance or provisioning [OAMP] of WDM passive optical networks, [WDM H041140221; All groups H0411402216, H041140221; Marking 140223 (Grownstena transmission) 140224 (In WDM passive optical networks, [WDM H041140221; Marking 140224 (In WDM passive optical networks, [WDM H041140221; Marking 140225 (Ior downstream transmission) 140226 (Ior downstream transmission) 140228 (Ior downstream transmission) 140229 (Ior downstream transmission) 140229 (Ior downstream transmission) 140220 (Ior downstream transmission) 140223 (Ior downstream transmission) 140224 (Using multiple wavelengths) 140225 (Ior downstream transmission) 140226 (Ior downstream transmission) 140227 (Ior downstream transmission) 140228 (Ior downstream transmission) 140229 (Ior downstream transmission) 140220 (Ior downstream transmission) 140226 (Ior downstream transmission) 140227 (Ior downstream transmission) 140228 (Ior downstream transmission) 140229 (Ior downstream transmission) 140229 (Ior downstream transmission) 140240 (Ior downstream transmission) 140240 (Ior downstream transmis				
Groups H041 14/0212, h041 14/0212 and H041 14/02126 should be considered in order to perform a complete search. 14/0219 (Distributed control} 14/0213 (Groups of channels or wave bands arrangements) Group H041 14/0221 of the 14/0221 o		pending reclassification of documents from groups H04J 14/021 and		Groups <u>H04J 14/0221</u> and <u>H04J 14/02218</u> should be considered in order to perform a
and H041 1402216 should be considered in order to perform a complete search. WARNING 140213 (Groups of channels or wave bands arrangements) Group H041 1402210 140216 (Architecture aspects) Group H041 140221 140217 (Bidirectional architectures) should be considered in order to perform a complete search. Group H041 140221 140219 (Modular or upgradable architectures) 140224 (Conversion to or from optical TDM) 140221 (Porinterconnection of WDM optical networks) 140226 (Fried carrier allocation, e.g. according to service) 140221 (Power control, e.g. to keep the total optical networks) 140227 (Gopenstion, administration, maintenance or provisioning (DAMP) of WDM networks, e.g. media access, routing or wavelength allocation) 140221 (Power control, e.g. to keep the total optical networks) 140227 (Wavelength allocation) for communications one-to-all, e.g. broadcasting wavelengths) 140221 (Power control, e.g. to keep the total optical networks) 140227 (In WDM passive optical networks (WDM- PONI) 140221 (Power control, e.g. to keep the total optical networks) 140223 (In WDM passive optical networks (WDM- PONI) 140221 (Power control, e.g. to keep the total optical networks) 140223 <td></td> <td></td> <td>14/02219</td> <td>{Distributed control}</td>			14/02219	{Distributed control}
Group Heigh 14402219 is incomplete pending reclassification of documents from group Heigh 14402219 is incomplete pending reclassification of documents from group Heigh 14402219 is incomplete pending reclassification of documents from group Heigh 14402219 is incomplete pending reclassification of documents from group Heigh 14402219 is incomplete pending reclassification of documents from group Heigh 14402219 is incomplete pending reclassification of documents from group Heigh spacing , e.g. to accommodate interference to all wavelengths) accomplete search. 14/0216 (For interconnection of WDM optical metworks) 14/0223 (Conversion to or from optical TDM) is or documents from group Heigh spacing, e.g. to accommodate interference to all wavelengths) accomplete search. 14/0221 (For interconnection of WDM optical metworks) 14/0227 (Conversion to or from optical TDM) is service) 14/0221 (For interconnection of WDM optical metworks) 14/0227 (Poretion administration, maintenance or provisioning IOAMP of WDM networks, e.g. according to service) 14/0221 (Bor optical Heigh 14/02216, Heigh 14/02217) 14/0238 (For downstream transmission) 14/02212 (by re-allocation of advertength spacing, e.g. uniticative wavelengths) (Sord downstream transmission) 14/02212 (by re-allocation of advertength spacing, e.g. uniticative wavelengths) (Fried carrier allocation for communications one-to-all, e.g. broadcasting wavelengths) 14/02212 (by re-allocation methy eva		and <u>H04J 14/02126</u> should be		WARNING
arrangements} Groups H04J 14/0221 and H04J 14/02219 14/0215 (Architecture aspects) Groups H04J 14/0221 and H04J 14/02219 14/0217 (Bitrectional architectures) acomplete search. 14/0219 (Conversion to or from optical TDM) 14/0221 (Multi-degree architectures) 14/0223 14/0221 (For interconnection of WDM optical networks) 14/0224 (Conversion to or from optical TDM) 14/0221 (Power control, e.g. to keep the total optical power constant) 14/0227 (Operation, administration, maintenance or provisioning (DAMP) of WDM networks, e.g. media access, routing or wavelength allocation for communications on eto-all, e.g. broadcasting wavelengths) 14/0221 (by addition of a dummy signal) 14/023 (for downstream transmission) 14/02212 (by addition of a dummy signal) 14/023 (using multiple wavelengths) 14/02212 (by addition of data channels) 14/024 (Wavelength allocation for communications on e-to-anne, e.g. multicasting wavelengths) 14/02212 (by re-allocation of data channels) 14/023 (using multiple wavelengths) 14/02212 (by re-allocation of data channels) 14/024 (in WDM-PON) 14/02214	14/0213	complete search.		pending reclassification of documents from
14/0216		arrangements}		Groups H04J 14/0221 and H04J 14/02219
14/0217 {Multi-degree architectures, e.g. having a connection degree greater than two} connection degree greater than two} and the connection of WDM optical networks and the architectures is interverse interverserse interverse interverse interverse interverse inten				-
 connection degree greater than two) 14/021 (Modular or upgradable architectures) (Power constrol, e.g. to keep the total optical power constant) (Power constant) (Power constant) (Modular or upgradable architectures) (Power constant) (Power constant)				complete search.
14/0219 [Modular or upgradable architectures] 14/022 [For interconnection of WDM optical networks] 14/0221 [For interconnection of WDM optical power constant] WARNING 14/0224 Group H041/14/0221 is impacted by reclassification into groups H041/14/02216, H041/14/02216, H041/14/02219, H041/14/02212, is incomplete search. 14/0233 (For downstream transmission] 14/0221 [by addition of a dummy signal] 14/0238 (using multiple wavelengths) 14/0221 [by addition of a dummy signal] 14/0238 (using multiple wavelengths) 14/0221 [by re-allocation of documents from group H041/14/02212 is incomplete pending reclassification of documents from group H041/14/0221 and H041/14/02212 14/0241	100217		· ·	
 14/022 [Pointerconnection of wDM optical networks] 14/0221 [Power control, e.g. to keep the total optical power constant] 14/0221 [Power control, e.g. to keep the total optical power constant] WARNING Group H04J 14/0221 is impacted by reclassification into groups H04J 14/02212, H04J 14/0221, Groups H04J 14/0221, Gr	14/0219			
 14/0221 (Power control, e.g. to keep the total optical power constant) WARNING Group H04J 14/0221 is impacted by reclassification into groups H04J 14/02212, H04J 14/02212, H04J 14/02216, H04J 14/02218 and H04J 14/02216, H04J 14/02218 and H04J 14/02216, H04J 14/02218 and H04J 14/02219. All groups listed in this Warning should be considered in order to perform a complete search. 14/0221 (by addition of a dummy signal) 14/0221 (by addition of a dummy signal) 14/0221 (by addition of a dummy signal) 14/0221 (by addition of dat channels) 14/0221 (by re-allocation of data channels) 14/0221 (by re-allocation of data channels) 14/0221 (by re-allocation of data channels) 14/0221 (by advelorgh 14/02214 is incomplete pending reclassification of documents from group H04J 14/0221 and H04J 14/02212 and H04J 14/0221 (using one wavelength per ONU) 14/0224 (using one wavelength per ONU) 14/0245 (using one wavelength per ONU) 14/0246 (using one wavelength per ONU) 14/0247 (by areal transmission, e.g. optical line terminal [0LT] to ONU WARNING (using one wavelength per ONU) and the pending reclassification of documents from group H04J 14/0221 and H04J 14/02214 (by re-allocation of data channels) 14/0245 (using one wavelength per ONU) and the pending reclassification of documents from group H04J 14/0221 and H04J 14/02214 and H04J 14/02214	14/022		14/0226 {	Fixed carrier allocation, e.g. according to
WARNING provisioning [OAMP] of WDM networks, e.g. media access, routing or wavelength allocation Group H041 14/0221, is impacted by reclassification into groups H04J 14/02212, H04J 14/02216, H04J 14/02218, and H04J 14/02219. 14/023 . (Wavelength allocation for communications one-to-all, e.g. broadcasting wavelengths) All groups listed in this Warning should be considered in order to perform a complete search. 14/023 (In WDM passive optical networks [WDM-PON]) 14/02212 (by addition of a dummy signal) 14/0236 (using multiple wavelengths) 14/02212 (by addition of a dummy signal) 14/0236 (using multiple wavelengths) I4/02212 (by addition of a dummy signal) 14/0238 (using multiple wavelengths) I4/02214 (by reclassification of documents from group H04J 14/0221 as incomplete pending reclassification of documents from group H04J 14/0221 and H04J 14/02212 14/0241 (in WDM-PON) 14/0224 (by re-allocation of data channels) 14/0245 (using one wavelength or a group of ONUs) I4/02214 (by re-allocation of documents from group H04J 14/02214 14/0247 (using one wavelength per ONU) I4/0224 (by re-allocation of data channels) 14/0245 (sing one wavelength per ONU) I4/0224 (by re-allocation of documents from group H04J 14/02214	14/0221		14/0227 {	Operation, administration, maintenance or
reclassification into groups H04J 14/02212, H04J 14/02214, H04J 14/02216, H04J 14/02218 and H04J 14/02219. one-to-all, e.g. broadcasting wavelengths} All groups listed in this Warning should be considered in order to perform a complete search. 14/023		* *		
H04J 14/02214, H04J 14/02216, H04J 14/02218 and H04J 14/02219. 14/023 { (in WDM passive optical networks [WDM-PON]} PON]} All groups listed in this Warning should be considered in order to perform a complete search. 14/0232 { (for downstream transmission} 14/0235 14/02212 { (by addition of a dummy signal} 14/0236 { (using multiple wavelengths} 14/0238 MARNING 14/02212 is incomplete pending reclassification of documents from group H04J 14/0221 and H04J 14/02212 should be considered in order to perform a complete search. 14/0239 { (wwelength allocation for communications one-to-one, e.g. uniticasting wavelengths} 14/02214 { (by re-allocation of data channels} 14/0246 { (for downstream transmission, e.g. optical line terminal [OLT] to ONU} 14/02214 { (by re-allocation of documents from group H04J 14/02214 is incomplete pending reclassification of documents from group H04J 14/0221 and H04J 14/02214 should be considered in order to perform a complete search. 14/0247				{Wavelength allocation for communications
All groups listed in this Warning should be considered in order to perform a complete search. 14/0232			14/023	
 search. 14/02212 {by addition of a dummy signal} 14/02212 {by addition of a dummy signal} WARNING Group H04J 14/02212 is incomplete pending reclassification of documents from group H04J 14/0221. Groups H04J 14/0221 and H04J 14/02212 should be considered in order to perform a complete search. 14/02214 {by re-allocation of data channels} WARNING 14/02214 {by re-allocation of documents from group H04J 14/02214 is incomplete pending reclassification of documents from group H04J 14/0221 and H04J 14/02212 should be considered in order to perform a complete search. 14/02214 {by re-allocation of data channels} 14/0246 {using one wavelength for at least a group H04J 14/0221. Groups H04J 14/0221 and H04J 14/0221. Group H04J 14/0221. Group H04J 14/0221. Group H04J 14/0221. H4/0246 {Using one wavelength for at least a group f104J 14/0221. Groups H04J 14/0221. Groups H04J 14/0221. Group H04J 14/0221. Groups H04J 14/0221. H4/0249 {Ising one wavelength for at least a group of ONUs} Groups H04J 14/0221. Groups		All groups listed in this Warning should be		
14/02212 {by addition of a dummy signal} 14/0236 {using multiple wavelengths} 14/02212 {by addition of a dummy signal} 14/0238 {using multiple wavelengths} WARNING Group H04J 14/02212 is incomplete pending reclassification of documents from group H04J 14/0221. 14/0239				
 14/02212 {by addition of a dummy signal} WARNING Group H04J 14/02212 is incomplete pending reclassification of documents from group H04J 14/0221. Groups H04J 14/0221 and H04J 14/02212 should be considered in order to perform a complete search. 14/02214 {by re-allocation of data channels} WARNING 14/02214 {by re-allocation of data channels} WARNING I4/02214 {by re-allocation of documents from group H04J 14/02214 is incomplete pending reclassification of documents from group H04J 14/02214 is incomplete pending reclassification of documents from group H04J 14/02214 is incomplete pending reclassification of documents from group H04J 14/0221. I4/0245 {for downstream transmission, e.g. optical line terminal [OLT] to ONU} I4/0247 {Sharing one wavelength for at least a group of ONUs} I4/0249 {for upstream transmission, e.g. ONU-to-OLT or ONU-to-ONU} should be considered in order to perform a complete search. I4/025 {using one wavelength per ONU, e.g. for transmissions from-ONU-to-OLT or onterto-OLT or transmissions from-ONU-to-OLT or transmission from-ONU-to-OLT or transmission from-ONU-to-OLT or		search.		· · · ·
WARNING one-to-many, e.g. multicasting wavelengths} Group H04J 14/02212 is incomplete pending reclassification of documents from group H04J 14/0221. 14/0239 · · · { {in WDM-PON sharing multiple downstream wavelengths for groups of optical network units [ONU], e.g. multicasting wavelengths} Groups H04J 14/0221. Groups H04J 14/02212 and H04J 14/02212 should be considered in order to perform a complete search. 14/0241 · · · { {Wavelength allocation for communications one-to-one, e.g. unicasting wavelengths} 14/02214 · · · { {by re-allocation of data channels} 14/0245 · · · · { {in WDM-PON} 14/02214 · · · { {by re-allocation of data channels} 14/0245 · · · · { {in WDM-PON} 14/02214 · · · · { {by re-allocation of data channels} 14/0245 · · · · { {in WDM-PON} 14/02214 · · · · { {by re-allocation of data channels} 14/0245 · · · · { {in WDM-PON} 14/0245 · · · · · { {in WDM-PON} Interminal [OLT] to ONU} Group H04J 14/02214 I4/0246 · · · · · { {using one wavelength per ONU} group H04J 14/0221. I4/0247 · · · · { {sharing one wavelength for at least a group of ONUs} group H04J 14/0221. I4/0249 · · · · { {using one wavelength per ONU} group H04J 14/0221 and H04J 14/02214 · · · · { {using one wavelength per ONU} · ·	14/02212	• • • {by addition of a dummy signal}		
Group H04J 14/02212 is incomplete pending reclassification of documents from group H04J 14/0221.14/0239 { in WDM-PON sharing multiple downstream wavelengths for groups of optical network units [ONU], e.g. multicasting wavelengths}Groups H04J 14/0221.Groups H04J 14/02212 should be considered in order to perform a complete search.14/0241 { Wavelength allocation for communications one-to-one, e.g. unicasting wavelengths}14/02214 { by re-allocation of data channels}14/0245 { for downstream transmission, e.g. optical line terminal [OLT] to ONU}14/02214 { by re-allocation of data channels}14/0246 { lusing one wavelength per ONU}Group H04J 14/02214is incomplete pending reclassification of documents from group H04J 14/0221.14/0221		WARNING	14/0230 • • •	· · · · · · · · · · · · · · · · · · ·
pending reclassification of documents from group H04J 14/0221. downstream Wavelengths for groups of optical network units [ONU], e.g. multicasting wavelengths} Groups H04J 14/0221 and H04J 14/02212 should be considered in order to perform a complete search. 14/0241 •••• {Wavelength allocation for communications one-to-one, e.g. unicasting wavelengths} 14/02214 ••••••••••••••••••••••••••••••••••••			14/0239	
Groups H04J 14/0221 and H04J 14/02212 should be considered in order to perform a complete search. 14/0241 {Wavelength allocation for communications one-to-one, e.g. unicasting wavelengths} 14/02214 {by re-allocation of data channels} 14/0242 {in WDM-PON} 14/02214 {by re-allocation of data channels} 14/0245		pending reclassification of documents from		of optical network units [ONU], e.g.
14/02214 { Iff WDM-PON } 14/02214 { Iff WDM-PON } 14/02214 { Iff WDM-PON } WARNING 14/0245 { for downstream transmission, e.g. optical line terminal [OLT] to ONU } Group H04J 14/02214 is incomplete pending reclassification of documents from group H04J 14/0221. 14/0246 { Sharing one wavelength for at least a group of ONUs } Groups H04J 14/0221. 14/0224		should be considered in order to perform a	14/0241	{Wavelength allocation for communications
WARNINGline terminal [OLT] to ONU}Group H04J 14/02214 is incomplete pending reclassification of documents from group H04J 14/0221.14/0246 { using one wavelength per ONU }Groups H04J 14/0221.14/0247 { Sharing one wavelength for at least a group of ONUs }Groups H04J 14/0221.14/0249 { for upstream transmission, e.g. ONU-to- OLT or ONU-to-ONU }Groups H04J 14/0221 and H04J 14/02214 should be considered in order to perform a complete search.14/025 { using one wavelength per ONU, e.g. for transmissions from-ONU-to-OLT or		complete search.		
WARNING14/0246 { using one wavelength per ONU }Group H04J 14/02214 is incomplete pending reclassification of documents from group H04J 14/0221.14/0247 { Sharing one wavelength for at least a group of ONUs }Groups H04J 14/0221.14/0249 { for upstream transmission, e.g. ONU-to- OLT or ONU-to-ONU }Groups H04J 14/0221 and H04J 14/02214 should be considered in order to perform a complete search.14/025 { using one wavelength per ONU, e.g. for transmissions from-ONU-to-OLT or	14/02214	• • {by re-allocation of data channels}	14/0245	
Group H04J 14/02214 is incomplete pending reclassification of documents from group H04J 14/0221.14/0247 { Sharing one wavelength for at least a group of ONUs}Groups H04J 14/0221.14/0249 { for upstream transmission, e.g. ONU-to- OLT or ONU-to-ONU}Groups H04J 14/0221 and H04J 14/02214 should be considered in order to perform a complete search.14/025 { suing one wavelength for at least a group of ONUs}		WARNING	14/0246	
group H04J 14/0221.14/0249for upstream transmission, e.g. ONU-to- OLT or ONU-to-ONU}Groups H04J 14/0221 and H04J 14/02214 should be considered in order to perform a complete search.14/024914/02514/02514/025{using one wavelength per ONU, e.g. for transmissions from-ONU-to-OLT or				• • • {Sharing one wavelength for at least a
should be considered in order to perform a 14/025 {using one wavelength per ONU, e.g. for transmissions from-ONU-to-OLT or		group <u>H04J 14/0221</u> .	14/0249	• • {for upstream transmission, e.g. ONU-to-
		should be considered in order to perform a	14/025	• • • {using one wavelength per ONU, e.g. for transmissions from-ONU-to-OLT or

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14/0252 2014/0253 14/0254	••••	 {Sharing one wavelength for at least a group of ONUs, e.g. for transmissions from-ONU-to-OLT or from-ONU-to-ONU} {Allocation of downstream wavelengths for upstream transmission} Optical medium access}
		VARNING
	-	Group <u>H04J 14/0254</u> is impacted by reclassification into groups <u>H04J 14/02762</u> and <u>H04J 14/02764</u> . Groups <u>H04J 14/0254</u> , <u>H04J 14/02762</u> and <u>H04J 14/02764</u> should be considered in
		order to perform a complete search.
14/0256		{at the optical channel layer}
14/0257		• {Wavelength assignment algorithms}
14/0258		• {Wavelength identification or labelling}
14/026	••••	• {using WDM channels of different transmission rates}
14/0261		{at the optical multiplex section layer}
14/0263	• • • •	• {Multiplex section layer wavelength assignment algorithms}
14/0264		• {Multiplex identification or labelling}
14/0265	••••	• {Multiplex arrangements in bidirectional systems, e.g. interleaved allocation of wavelengths or allocation of wavelength groups}
14/0267		{Optical signaling or routing}
14/0268	••••	• {Restoration of optical paths, e.g. p- cycles}
14/0269		• {using tables for routing}
14/0271		• {Impairment aware routing}
14/0272		{Transmission of OAMP information}
14/0273	• • • •	• {using optical overhead, e.g. overhead processing}
14/0275		• {using an optical service channel}
14/0276		• {using pilot tones}
14/02762		{Spectrum slot allocation}
		WARNING

Group <u>H04J 14/02762</u> is incomplete pending reclassification of documents from group <u>H04J 14/0254</u>. Groups <u>H04J 14/0254</u> and <u>H04J 14/02762</u> should be considered in order to perform

14/02764 {Multiplex arrangements for radio-frequency networks access; policies therefor (radio over fibre arrangement <u>H04B 10/2575</u>)}

a complete search.

WARNING

Group <u>H04J 14/02764</u> is incomplete pending reclassification of documents from group <u>H04J 14/0254</u>.

Groups <u>H04J 14/0254</u> and <u>H04J 14/02764</u> should be considered in order to perform a complete search.

14/0278	• • {WDM optical network architectures}
	WARNING

Group <u>H04J 14/0278</u> is impacted by reclassification into group <u>H04J 14/02862</u>. Groups <u>H04J 14/0278</u> and <u>H04J 14/02862</u> should be considered in order to perform a complete search.

14/0279	• • • {WDM point-to-point architectures}
14/028	• • • {WDM bus architectures}
14/0282	• • • {WDM tree architectures}
14/0283	• • • {WDM ring architectures}
14/0284	• • • {WDM mesh architectures}
14/0286	• • • {WDM hierarchical architectures}
14/02862	• • • {WDM data centre network [DCN]
	architectures}

WARNING

	Group <u>H04J 14/02862</u> is incomplete pending reclassification of documents from group <u>H04J 14/0278</u> . Groups <u>H04J 14/0278</u> and <u>H04J 14/02862</u> should be considered in order to perform a complete search.
14/0287	• • {Protection in WDM systems}
14/0289	• • • {Optical multiplex section protection}
14/029	• • • {Dedicated protection at the optical multiplex section (1+1)}
14/0291	•••• {Shared protection at the optical multiplex section (1:1, n:m)}
14/0293	• • • {Optical channel protection}
14/0294	• • • • {Dedicated protection at the optical channel $(1+1)$ }
14/0295	• • • {Shared protection at the optical channel (1:1, n:m)}
14/0297	• • • {Optical equipment protection}
14/0298	• • {with sub-carrier multiplexing [SCM]}
14/03	• • {WDM arrangements (ADM arrangements <u>H04J 14/0202;</u> WDM network architectures <u>H04J 14/0278</u>)}

WARNING

Groups <u>H04J 14/03</u>, <u>H04J 14/0305</u> and <u>H04J 14/0307</u> are incomplete pending reclassification of documents from group <u>H04J 14/02</u>.

All groups listed in this Warning should be considered in order to perform a complete search.

- 14/0305 . . . {in end terminals}
- 14/0307 . . . {Multiplexers; Demultiplexers}
- 14/04 Mode multiplex systems

WARNING

Group $\underline{H04J 14/04}$ is impacted by reclassification into group $\underline{H04J 14/052}$.

Groups <u>H04J 14/04</u> and <u>H04J 14/052</u> should be considered in order to perform a complete search.

H	04	IJ

14/05	• {Spatial multiplexing systems}	2203/0035	•••• Radio
	WARNING	2203/0037	Satellite
		2203/0039	Topology
	Group <u>H04J 14/05</u> is incomplete pending reclassification of documents from group H04J 14/00.	2203/0041	• • • Star, e.g. cross-connect, concentrator, subscriber group equipment, remote
			electronics
	Groups <u>H04J 14/00</u> and <u>H04J 14/05</u> should be considered in order to perform a complete		•••• Ring
	search.		Bus, e.g. DQDB
	seuren.		. User Network Interface
	• • {using multicore fibre (mode multiplex systems <u>H04J 14/04</u>)}	2203/005	Network termination, e.g. NT1, NT2, PBXTerminal equipment, e.g. codecs, synch
	WARNING	2203/0051	• Network Node Interface, e.g. tandem connections, transit switching
	Group H04J 14/052 is incomplete pending	2203/0053	Routing
	reclassification of documents from group <u>H04J 14/04</u> .	2203/0055	• • • Network design, dimensioning, topology or optimisation
	Groups <u>H04J 14/04</u> and <u>H04J 14/052</u> should be considered in order to perform a complete	2203/0057	• Operations, administration and maintenance [OAM]
	search.	2203/0058	Network management, e.g. Intelligent nets
14/06		2203/006	Fault tolerance and recovery
14/06 14/07	 Polarisation multiplex systems {Orbital angular momentum [OAM] multiplex 	2203/0062	Testing
14/07	systems}	2203/0064	Admission Control
	• /	2203/0066	Signalling, e.g. protocols, reference model
	WARNING	2203/0067	Resource management and allocation
	Group H04J 14/07 is incomplete pending		Channel allocation
	reclassification of documents from group		Monitoring
	<u>H04J 14/00</u> .		• • Services, e.g. multimedia, GOS, QOS
	Groups <u>H04J 14/00</u> and <u>H04J 14/07</u> should		Connection-oriented
	be considered in order to perform a complete search.	2203/0076	• • Channel characteristics, e.g. BER, error detection, error correction, delay, jitter
14/08	• Time-division multiplex systems	2203/0078	Support of N-ISDN
14/083	• {Add and drop multiplexing}	2203/008	Support of video
14/086	 (Nedium access (<u>H04J 3/16</u> takes precedence)) 		Interaction of SDH with non-ATM protocols Support of the IP protocol
99/00	Subject matter not provided for in other groups of		Support of Ethernet
	this subclass		Support of voice
2203/00	Aspects of optical multiplex systems other than		• • Multiplexing, e.g. coding, scrambling, SONET
2203/00	those covered by H04J 14/05 and H04J 14/07		Time slot assignment
2203/0001			Code Division Multiple Access [CDMA]
2203/0001	services digital network using frames of the Optical		Virtual Concatenation
	Transport Network [OTN] or using synchronous	2203/0096	Serial Concatenation
2203/0003	transfer mode [STM], e.g. SONET, SDH • Switching fabrics, e.g. transport network, control	2203/0098	• Traffic aspects, e.g. arbitration, load balancing, smoothing, buffer management
	network	2211/00	Orthogonal indexing scheme relating to orthogonal
2203/0005	Switching elements		multiplex systems
2203/0007	• • • Space switch details	2211/001	• using small cells within macro cells, e.g. femto, pico
2203/0008	• • • Time switch details		or microcells
2203/001	• • • • using a shared central buffer	2211/003	• within particular systems or standards
2203/0012	Switching modules and their interconnections	2211/005	Long term evolution [LTE]
2203/0014	•••• Clos	2211/006	• Single carrier frequency division multiple access
2203/0016	Crossbar	2211/000	[SC FDMA]
2203/0017	• • • Parallel switch planes	2211/008	Interleaved frequency division multiple access
2203/0019	Multicast/broadcast capabilities		[IFDMA]
	Control mechanisms		
	Routing/path finding		
	• • Peripheral units		
	• • Physical details		
2203/0028	. Local loop		
2203/003	• • • Medium of transmission, e.g. fibre, cable, radio		
2203/0032	•••• Fibre		
2203/0033	Metallic		