1/00 Details of transmission systems, not covered by a single one of groups H04B 3/000 - H04B 13/00;
Details of transmission systems not characterised by the medium used for transmission (tuning resonant circuits H03J)

NOTE
In this group, group H04B 1/0003 takes precedence over groups H04B 1/005 - H04B 1/76

1/0003 . . {Software-defined radio [SDR] systems, i.e. systems wherein components typically implemented in hardware, e.g. filters or modulators/demodulators, are implemented using software, e.g. by involving an AD or DA conversion stage such that at least part of the signal processing is performed in the digital domain (digital baseband systems H04L 25/00; digital modulation/demodulation H04L 27/00; CDMA H04B 1/707; TDMA H04B 7/2643; image transmission H04N 5/00) }

1/0007 . . {wherein the AD/DA conversion occurs at radiofrequency or intermediate frequency stage }

1/001 . . {Channel filtering, i.e. selecting a frequency channel within the SDR system (multiplexing of multicarrier modulation signals being represented by different frequencies H04L 5/06; multiplexing of multicarrier modulation signals H04L 5/023) }

1/0014 . . {using DSP [Digital Signal Processor] quadrature modulation and demodulation }

1/0017 . . {Digital filtering (H04B 1/0001 takes precedence; digital filters per se H03H 5/10) }

1/0021 . . {Decimation, i.e. data rate reduction techniques }

1/0025 . . {using a sampling rate lower than twice the highest frequency component of the sampled signal (for demodulation of angle-modulated signals H03D 3/006) }

1/0028 . . {wherein the AD/DA conversion occurs at baseband stage }

1/0032 . . {with analogue quadrature frequency conversion to and from the baseband (quadrature modulators and demodulators per se H03D 3/007, H03C 3/40) }

1/0035 . . {Channel filtering, i.e. selecting a frequency channel within a software radio system (multiplexing of multicarrier modulation signals being represented by different frequencies H04L 5/06; multiplexing of multicarrier modulation signals H04L 5/023) }

1/0039 . . {using DSP [Digital Signal Processor] quadrature modulation and demodulation }

1/0042 . . {Digital filtering (H04B 1/0005 takes precedence; digital filters per se H03H 17/00) }

1/0046 . . {Decimation, i.e. data rate reduction techniques }

1/005 . . {adapting radio receivers, transmitters and transceivers for operation on two or more bands, i.e. frequency ranges }

1/0053 . . {with common antenna for more than one band }

1/0057 . . {using diplexing or multiplexing filters for selecting the desired band }

1/006 . . {using switches for selecting the desired band (H04B 1/0057 takes precedence) }

1/0064 . . {with separate antennas for the more than one band (H04B 1/0058 takes precedence) }

1/0067 . . {with one or more circuit blocks in common for different bands }

1/0071 . . {using a common intermediate frequency for more than one band (H04B 1/0075 takes precedence) }

1/0075 . . {using different intermediate frequencies for the different bands }

1/0078 . . {with a common local oscillator for more than one band }

NOTE
This subclass covers the transmission of information-carrying signals, the transmission being independent of the nature of the information, and includes monitoring and testing arrangements and the suppression and limitation of noise and interference.

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.
1/0085 . . . . {where one band is the image frequency band of the other and the band selection is done by image rejection}
1/0089 . . . . {using a first intermediate frequency higher that the highest of any band received}
1/0092 . . . . {using a wideband front end}
1/0096 . . . . {where a full band is frequency converted into another full band}
1/02 . . . . Transmitters (spatial arrangements of component circuits in radio pills for living beings A61B 5/07)
1/03 . . . . Constructional details, e.g. casings, housings (adapted for airplanes B64D)
1/034 . . . . Portable transmitters ((distress beacons G01S 1/68; means for indicating the location of accidentally buried persons A63B 29/021)
1/0343 . . . . {to be carried on the body}
1/0346 . . . . {Hand-held transmitters}
1/036 . . . . Cooling arrangements (cooling transformers H01F 27/08; cooling discharge tubes H01J 7/24, H01J 19/74)
1/04 . . . . Circuits (of television transmitters H04N 5/38; oscillators H03B; modulators H03C 1/00, H03C 3/00, H03C 5/00; amplifiers H03E; power supplies H04B 1/1607)
2001/0408 . . . . {with power amplifiers}
2001/0416 . . . . {having gain or transmission power control}
2001/0425 . . . . {with linearisation using predistortion}
2001/0433 . . . . {with linearisation using feedback}
2001/0441 . . . . {with linearisation using feed-forward}
2001/045 . . . . {with means for improving efficiency}
1/0458 . . . . {Arrangements for matching and coupling between power amplifier and antenna or between amplifying stages (matching circuits in general H03H)}
1/0466 . . . . {Fault detection or indication (H04B 1/0483 takes precedence)}
1/0475 . . . . {with means for limiting noise, interference or disturbance (H04B 1/0483 takes precedence)}
1/0483 . . . . {Transmitters with multiple parallel paths}
2001/0491 . . . . {with frequency synthesizers, frequency converters or modulators}
1/06 . . . . Receivers (control of amplification H03G; television receivers H04N 5/44, H04N 5/64)
1/08 . . . . Constructional details, e.g. cabinet
1/082 . . . . {to be used in vehicles (H04B 1/086 takes precedence; holding or mounting accessories B60R 11/02)}
2001/084 . . . . {with removable front panel}
1/086 . . . . {Portable receivers}
1/088 . . . . {with parts of the receiver detachable or collapsible}
1/10 . . . . Means associated with receiver for limiting or suppressing noise or interference (induced by transmission (interference reduction in spread spectrum systems H04B 1/7097; equalising on HF or IF H04B 7/005; diversity systems H04B 7/02; elimination of image frequencies H03D 7/18; noise suppression by control of amplification H03G 3/00, H03G 5/00, H03G 7/00; squelching H03G 3/26, H03G 3/34)}
1/1009 . . . . {Placing the antenna at a place where the noise level is low and using a noise-free transmission line between the antenna and the receivers (screened aerials H01Q 7/04; feeders for aerials H01Q 9/00)}
1/1018 . . . . {noise filters connected between the power supply and the receiver (suppression or limitation of noise from electric apparatus H04B 15/00; demodulation H03D; ripple filters H02M 1/14; filters in general 95G, H03H; power supplies H04B 1/1607)}
1/1027 . . . . {assessing signal quality or detecting noise/interference for the received signal}
1/1036 . . . . {with automatic suppression of narrow band noise or interference, e.g. by using tuneable notch filters (H04B 1/123 takes precedence; filter circuits H03H)}
2001/1045 . . . . {Adjacent-channel interference}
2001/1054 . . . . {by changing bandwidth}
2001/1063 . . . . {using a notch filter}
2001/1072 . . . . {by tuning the receiver frequency}
1/1081 . . . . {Reduction of multipath noise (by equalising H04B 7/005)}
1/109 . . . . {by improving strong signal performance of the receiver when strong unwanted signals are present at the receiver input}
1/12 . . . . Neutralising, balancing, or compensation arrangements (balancing ripple filters H04B 15/005, H02M 1/143)
1/123 . . . . {using adaptive balancing or compensation means (adaptive filter circuits and algorithms H03H)}
1/126 . . . . {having multiple inputs, e.g. auxiliary antenna for receiving interfering signal (aerials in general H01Q)}
1/14 . . . . Automatic detuning arrangements
1/16 . . . . Circuits (demodulators H03D)
1/1607 . . . . {Supply circuits (converters H02M; filters therefor H02M 1/14; voltage stabilisers G05F 1/46)}
1/1615 . . . . [Switching on; Switching off, e.g. remotely (battery saving circuits associated with selective call operation H04W 52/00; details of power consumption reduction in a PLL, H03L 7/0802, H03L 7/14, H03L 220708, H03L 220718; muting amplifiers by gain control see H03G 3/34)]
1/1623 . . . . {using tubes}
1/163 . . . . {Special arrangements for the reduction of the damping of resonant circuits of receivers (amplifiers H03F; negative impedance networks for line transmission systems H04B 3/16)}
1/1638 . . . . {Special circuits to enhance selectivity of receivers not otherwise provided for (resonant circuits H03H)}
1/1646 . . . . {adapted for the reception of stereophonic signals}
1/1653 . . . . {Detection of the presence of stereo signals and pilot signal regeneration}
1/1661 . . . . {Reduction of noise by manipulation of the baseband composite stereophonic signal or the decoded left and right channels}
1/1669 . . . . {of the demodulated composite stereo signal}
Transceivers, i.e. devices in which transmitter and receiver form a structural unit and in which at least one semiconductor device having three or more electrodes is used for functions of transmitting and receiving.

For superheterodyne receivers (multiple frequency-changing H03D 7/16(1)), the receiver comprising at least one semiconductor device having three or more electrodes.

For homodyne or synchronode receivers (demodulator circuits H03D 1/22), the receiver comprising at least one semiconductor device having three or more electrodes.

For single sideband receivers (demodulator circuits H03D 1/24), with means to alert the user that a certain exposure has been reached.

Hybrid arrangements, i.e. arrangements for transition from single-path two-direction communication in two directions to single-direction transmission on each of two paths or vice versa, with means for reducing leakage of transmitter signal into the receiver.

Hybrid arrangements, i.e. arrangements for transition from single-path two-direction transmission to single-direction transmission on each of two paths or vice versa, with more than one transmission mode, e.g. analog and digital modes.

Hybrid arrangements, i.e. arrangements for transition from single-path two-direction transmission to single-direction transmission on each of two paths or vice versa, with extendable microphones or earphones (H04B 1/68 takes precedence).

Transceivers, i.e. devices in which transmitter and receiver form a structural unit and in which at least one part is used for functions of transmitting and receiving.

Transceivers, i.e. devices in which transmitter and receiver form a structural unit and in which one part is used for functions of transmitting and receiving.

Responders; Transponders (relay systems H04B 7/14).

Responders; Transponders (relay systems H04B 7/14), using opto-couplers (light transmission systems H04B 1000).

Responders; Transponders (relay systems H04B 7/14), with automatic balancing.

Responders; Transponders (relay systems H04B 7/14), with automatic balancing.

Responders; Transponders (relay systems H04B 7/14), with automatic balancing.

Transceivers, i.e. devices in which transmitter and receiver form a structural unit and in which one part is used for functions of transmitting and receiving.

Hybrid arrangements, i.e. arrangements for transition from single-path two-direction transmission to single-direction transmission on each of two paths or vice versa.

Transceivers, i.e. devices in which transmitter and receiver form a structural unit and in which at least one part is used for functions of transmitting and receiving.

Transceivers, i.e. devices in which transmitter and receiver form a structural unit and in which at least one part is used for functions of transmitting and receiving.

Hybrid arrangements, i.e. arrangements for transition from single-path two-direction transmission to single-direction transmission on each of two paths or vice versa.

Hybrid arrangements, i.e. arrangements for transition from single-path two-direction transmission to single-direction transmission on each of two paths or vice versa.

Hybrid arrangements, i.e. arrangements for transition from single-path two-direction transmission to single-direction transmission on each of two paths or vice versa.

Hybrid arrangements, i.e. arrangements for transition from single-path two-direction transmission to single-direction transmission on each of two paths or vice versa.

Transceivers, i.e. devices in which transmitter and receiver form a structural unit and in which one part is used for functions of transmitting and receiving.

Transceivers, i.e. devices in which transmitter and receiver form a structural unit and in which one part is used for functions of transmitting and receiving.

Hybrid arrangements, i.e. arrangements for transition from single-path two-direction transmission to single-direction transmission on each of two paths or vice versa.

Hybrid arrangements, i.e. arrangements for transition from single-path two-direction transmission to single-direction transmission on each of two paths or vice versa.
Spread spectrum techniques

- Using direct sequence modulation
  - Using code tracking loop, e.g. a delay locked loop
  - Using partial detection (H04B 1/70758 takes precedence)
  - Setting of search window, i.e. range of code offsets to be searched
  - Jumping within the code, i.e. masking or slewing
  - With increased resolution, i.e. higher than half a chip
  - Using multiple search strategies
  - Multi-step acquisition, e.g. multi-dwell, coarse-fine or validation
  - Multi-dwell schemes, i.e. multiple accumulation times
- Using a code tracking loop, e.g. a delay locked loop
- Using a bank of matched fileters, e.g. Fast Hadamard Transform
- Sliding correlator type
- Interference-related aspects

Interference-related aspects

- Using impulse radio
- Using impulse radio
- Using a code tracking loop, e.g. a delay locked loop
- Using a bank of matched fileters, e.g. Fast Hadamard Transform
- Sliding correlator type
- Interference-related aspects

WARNING

Group H04B 1/7115 is incomplete
Pending reclassification of documents from group H04B 7/02
Groups H04B 7/02 and H04B 1/7115 should be considered in order to perform a complete search.

Selection, re-selection, allocation or re-allocation of paths to fingers, e.g. timing offset control of allocated fingers

- Weighting of fingers for combining, e.g. amplitude control or phase rotation using an inner loop

- Using frequency hopping
- Arrangements for generation of hop frequencies, e.g. using a bank of frequency sources, using continuous tuning or using a transform
- Using a bank of frequency sources
- Using continuous tuning of a single frequency source
- Using a transform
- Arrangements for generation of hop patterns
- Interference-related aspects
- With means for suppressing interference
- With means for preventing interference
- Arrangements for sequence synchronisation
- Acquisition
- Tracking
- Using impulse radio
- (Signal aspects (H04B 1/712 and H04B 1/717 take precedence)
- (Transmitter aspects (H04B 1/714 takes precedence)
- (Receiver aspects (H04B 1/713 takes precedence)
- Pulse-related aspects
- Pulse shape (in general H04L 25/03834)
- Pulse generation (in general H04L 25/03834)
- Data mapping, e.g. modulation
H04B

1/7183 . . . Synchronisation
1/719 . . . Interference-related aspects
1/72 . . . Circuits or components for simulating antennas, e.g.
dummy antennas
1/74 . . . for increasing reliability, e.g. using redundant or
spare channels or apparatus (replacing by standby
devices for amplifiers H03F 1/52; H03F 1/54)
1/745 . . . [using by-passing or self-healing methods]
1/76 . . . Pilot transmitters or receivers for control of
transmission or for equalising
3/00 Line transmission systems (combined with near-field transmission systems H04B 5/00; constructional features of cables H01B 11/00)
3/02 . . . Details
3/03 . . . Hybrid circuits (for transceivers H04B 1/52;
H04B 1/58; hybrid junctions of the waveguide
type H01P 5/16)
3/04 . . . Control of transmission; Equalising (control of
amplification in general H03G)
3/06 . . . by the transmitted signal
3/08 . . . in negative-feedback path of line amplifier
3/10 . . . by pilot signal
3/11 . . . using pilot wire (H04B 3/12 takes
precedence)
3/12 . . . in negative-feedback path of line amplifier
3/14 . . . characterised by the equalising network used
3/141 . . . [using multiequalisers, e.g. bump, cosine, Bode]
3/142 . . . [using echo-equalisers, e.g. transversal]
3/143 . . . [using amplitude-frequency equalisers]
3/144 . . . [fixed equalizers]
3/145 . . . [variable equalisers]
3/146 . . . [using phase-frequency equalisers]
3/147 . . . [fixed equalisers]
3/148 . . . [variable equalisers]
3/16 . . . characterised by the negative-impedance
network used
3/18 . . . wherein the network comprises
semiconductor devices
3/20 . . . Reducing echo effects or singing; Opening or
closing transmitting path; Conditioning for
transmission in one direction or the other
3/21 . . . using a set of bandfilters
3/23 . . . using a replica of transmitted signal in the
time domain, e.g. echo cancellers
3/231 . . . [Echo cancellers using readout of a memory
to provide the echo replica]
3/232 . . . [using phase shift, phase roll or frequency
offset correction]
3/234 . . . [using double talk detection]
3/235 . . . [combined with adaptive equaliser]
3/237 . . . [using two adaptive filters, e.g. for near end
and for end echo cancelling]
3/238 . . . [using initial training sequence]
3/26 . . . Improving frequency characteristic by the use of
loading coils (loading coils per se H01F 17/08)
3/28 . . . Reducing interference caused by currents induced
in cable sheathing or armouring
3/30 . . . Reducing interference caused by unbalance
current in a normally balanced line
3/32 . . . Reducing cross-talk, e.g. by compensating
3/34 . . . by systematic interconnection of lengths of
cable during laying; by addition of balancing
components to cable during laying
3/36 . . . Repeater circuits (H04B 3/58 takes precedence;
amplifiers therefor H03F)
3/38 . . . for signals in two different frequency ranges
transmitted in opposite directions over the same
transmission path
3/40 . . . Artificial lines; Networks simulating a line of
certain length
3/42 . . . Circuits for by-passing of ringing signals
3/44 . . . Arrangements for feeding power to a repeater
along the transmission line
3/46 . . . Monitoring; Testing
3/462 . . . Testing group delay or phase shift, e.g. timing
jitter
3/466 . . . . . Testing attenuation in combination with at
least one of group delay and phase shift
3/48 . . . Testing attenuation (H04B 3/466 takes
precedence)
3/487 . . . Testing crosstalk effects
3/493 . . . Testing echo effects or singing
3/50 . . . Systems for transmission between fixed stations via
two-conductor transmission lines (H04B 3/54 takes
precedence)
3/52 . . . Systems for transmission between fixed stations via
waveguides
3/54 . . . Systems for transmission via power distribution
lines
3/542 . . . [the information being in digital form]
3/544 . . . [Setting up communications; Call and signalling
arrangements]
3/546 . . . [Combination of signalling, telemetering,
protection (circuits for remote indication
of supply or distribution network condition
H02J 13/00)]
3/548 . . . [the power on the line being DC (arrangements
for feeding power H04L 12/10; extracting feeding
power from signals H04L 25/02)]
3/56 . . . Circuits for coupling, blocking, or by-passing of
signals
3/58 . . . Repeater circuits (amplifiers therefor H03F)
3/60 . . . Systems for communication between relatively
movable stations, e.g. for communication with lift
(H04B 3/54 takes precedence)
5/00 Near-field transmission systems, e.g. inductive loop
type
5/0006 . . . [using a receiver structurally associated with a
loudspeaker or an earphone]
5/0012 . . . [using capacitive coupling]
5/0018 . . . [using leaky or radiating cables, e.g. leaky coaxial
cables or power lines for inductive transmission
(leaky cables per se H01Q 13/20; for railways
B61L 3/22)]
5/0025 . . . [Near field system adaptations]
5/0031 . . . [for data transfer]
5/0037 . . . [for power transfer]
5/0043 . . . [for taking measurements, e.g. using sensor coils]
5/005 . . . [for isolation purposes]
5/0056 . . . [for use in interrogation, identification or read/write
systems (record carriers G06K 7/00; G06K 19/00;
for railways B61L 3/12)]
Radio transmission systems, i.e. using radiation field (H04B 10/00, H04B 15/00 take precedence)

7/00

Radio transmission systems, i.e. using radiation field (H04B 10/00, H04B 15/00 take precedence)

7/002

{Reducing depolarization effects}

7/005

Control of transmission; Equalising

7/01

Reducing phase shift

7/015

Reducing echo effects

7/02

Diversity systems; Multi-antenna system, i.e. transmission or reception using multiple antennas (RAKE receivers H04B 1/7115)

WARNING

Group H04B 7/02 is impacted by reclassification into group H04B 1/7115.

Groups H04B 7/02 and H04B 1/7115 should be considered in order to perform a complete search.

7/002 . . . Site diversity; Macro-diversity (using two or more spaced independent antennas H04B 7/04)

7/006 . . . [taking power constraints at power amplifier or emission constraints, e.g. constant modulus, into account]

7/02 . . . using transceiver

7/04 . . . Calling systems, e.g. paging system

7/06 . . . at the transmitting station

7/062 . . . [taking antenna switching (H04B 7/0686 takes precedence; antenna beam directivity switching H01Q 3/24)]

7/064 . . . [with predefined switching scheme]

7/066 . . . [Random or pseudo-random switching scheme]

7/068 . . . [Antenna selection according to transmission parameters]

7/069 . . . [using feedback from receiving side]

7/070 . . . [using simultaneous transmission (H04B 7/0686 takes precedence)]

7/071 . . . [of weighted versions of same signal]

7/072 . . . [for beam forming]

7/073 . . . [using feedback from receiving side (feedback signaling for adaptive modulation/coding H04L 1/0001)]

7/074 . . . [Feedback content]

7/075 . . . [Auxiliary parameters, e.g. power control [PCB] or not acknowledged commands [NACK], used as feedback information]

7/076 . . . [Channel coefficients, e.g. channel state information [CSI]]

7/077 . . . [Diversity capabilities]

7/078 . . . [Parameters other than those covered in groups H04B 7/0623 - H04B 7/0634, e.g. channel matrix rank or transmit mode selection]

7/079 . . . [Channel quality parameters, e.g. channel quality indicator [CQI]]

7/08 . . . [Antenna weights or vector/matrix coefficients]

7/080 . . . [Feedback format]

7/081 . . . [Feedback error handling]

7/082 . . . [Feedback reduction]

7/006 . . . [taking special antenna structures, e.g. cross polarized antennas into account]

7/007 . . . [taking constraints in layer or codeword to antenna mapping into account]

7/009 . . . [Special codebook structures directed to feedback optimization]

7/01 . . . [taking channel rank into account]

7/011 . . . [using two or more sectors, i.e. sector diversity]

7/013 . . . [using overlapping sectors in the same base station to implement MIMO for antennas]

7/015 . . . [using antenna coils (loop aerials H01Q 7/00)]

7/016 . . . [Spatial transmit diversity using a single antenna]

7/017 . . . [using inductive coupling (transformers or inductances adapted for inductive coupling H01F 38/14)]

7/019 . . . [using two or more beams, i.e. beam diversity]

7/02 . . . [Antenna selection according to channel matrix rank or transmit mode selection]

7/020 . . . [taking channel rank into account]

7/022 . . . [using multiple eigenmodes]

7/023 . . . [using feedback from receiving side]

7/024 . . . [Feedback reduction]

7/026 . . . [Feedback error handling]

7/027 . . . [Feedback format]

7/028 . . . [Feedback reduction]

7/029 . . . [Feedback error handling]

7/03 . . . [taking special antenna structures, e.g. cross polarized antennas into account]

7/031 . . . [taking constraints in layer or codeword to antenna mapping into account]

7/032 . . . [Special codebook structures directed to feedback optimization]

7/034 . . . [using inductive coupling (transformers or inductances adapted for inductive coupling H01F 38/14)]

7/036 . . . [taking special antenna structures, e.g. cross polarized antennas into account]

7/037 . . . [using antenna coils (loop aerials H01Q 7/00)]

7/039 . . . [using two or more beams, i.e. beam diversity]

7/04 . . . [taking channel rank into account]

7/041 . . . [using overlapping sectors in the same base station to implement MIMO for antennas]

7/042 . . . [using two or more spaced independent antennas]

7/044 . . . [using two or more spaced independent antennas]

7/046 . . . [taking physical layer constraints into account]
at the receiving station
\[ \text{Hybrid systems, i.e. switching and simultaneous transmission} \]
\[ \text{using different transmission schemes, at least one of them being a diversity transmission scheme} \]
\[ \text{using subgroups of transmit antennas} \]
\[ \text{switching off a diversity branch, e.g. to save power} \]
\[ \text{at the receiving station} \]
\[ \text{using antenna selection (H04B 7/0868 takes precedence; antenna beam directivity switching H01Q 3/24)} \]
\[ \text{with single receiver and antenna switching (H04B 7/0822 takes precedence)} \]
\[ \text{comparing all antennas before reception} \]
\[ \text{during preamble or gap period} \]
\[ \text{based on current reception conditions, e.g. switching to different antenna when signal level is below threshold} \]
\[ \text{with multiple receivers and antenna path selection} \]
\[ \text{selecting best antenna path} \]
\[ \text{according to predefined selection scheme} \]
\[ \text{with main and with auxiliary or diversity antennas} \]
\[ \text{with delay elements in antenna paths} \]
\[ \text{Compensation of the diversity switching process for non-uniform properties or faulty operations of the switches used in the diversity switching process} \]
\[ \text{based on external parameters, e.g. subscriber speed or location} \]
7/15507 . . . . { Relay station based processing for cell extension or control of coverage area, (network planning with network coordinated processing with regard to cell extension H04W 16/26; network topologies using dedicated repeater stations H04W 84/047; terminal devices adapted for relaying to or from an other terminal H04W 88/044) }

7/15514 . . . . { (for shadowing compensation (for satellite mobile telephony service systems H04B 7/18536)) }

7/15521 . . . . { combining by calculations packets received from different stations before transmitting the combined packets as part of network coding (network coding aspects for detection or prevention of errors in the information received H04L 1/0076; network traffic management with optimizing of information sizing, e.g. header compression, by using assembly and disassembly of packets H04W 28/065) }

7/15528 . . . . { Control of operation parameters of a relay station to exploit the physical medium }

7/15535 . . . . { (Control of relay amplifier gain (amplifier gain control in general H03G 3/00; gain control reducing self - or loop interference H04B 7/15578)) }

7/15542 . . . . { (Selecting at relay station its transmit and receive resources (selection of wireless resources by user or terminal H04W 72/02; arrangements affording multiple use of the transmission path by two-dimensional division of the resources H04L 5/0003, or by allocating sub-channels H04L 5/0003)) }

7/1555 . . . . { (Selecting relay station antenna mode, e.g. selecting omnidirectional -, directional beams, selecting polarizations) }

7/15557 . . . . { (Selecting relay station operation mode, e.g. between amplify and forward mode, decode and forward mode or FDD - and TDD mode) }

7/15564 . . . . { (Relay station antenna loop interference reduction) }

7/15571 . . . . { (by signal isolation, e.g. isolation by frequency or by antenna pattern, or by polarization) }

7/15578 . . . . { (by gain adjustment) }

7/15585 . . . . { (by interference cancellation) }

7/15592 . . . . { [Adapting at the relay station communication parameters for supporting cooperative relaying, i.e. transmission of the same data via direct - and relayed path (cooperative diversity H04B 7/024)] }

7/165 . . . . employing angle modulation

7/17 . . . . employing pulse modulation, e.g. pulse code modulation

7/185 . . . . Space-based or airborne stations; {Stations for satellite systems} (H04B 7/204 takes precedence)

7/18502 . . . . { Airborne stations }

7/18504 . . . . { Aircraft used as relay or high altitude atmospheric platform }

7/18506 . . . . { Communications with or from aircraft, i.e. aeronautical mobile service }

7/18508 . . . . { with satellite system used as relay, i.e. aeronautical mobile satellite service }

7/1851 . . . . { Systems using a satellite or space-based relay (H04B 7/18508, H04B 7/18521 take precedence; providing specific services H04B 7/18523 - H04B 7/18576) }

7/18513 . . . . { Transmission in a satellite or space-based system }

7/18515 . . . . { Transmission equipment in satellites or space-based relays }

7/18517 . . . . { Transmission equipment in earth stations }

7/18519 . . . . { Operations control, administration or maintenance }

7/18521 . . . . { Systems of inter linked satellites, i.e. inter satellite service (for optical links between satellites H04B 10/118) }

7/18523 . . . . { Satellite systems for providing broadcast service to terrestrial stations, i.e. broadcast satellite service (arrangements specially adapted for satellite broadcast receiving H04H 40/90; picture transmission via satellite H04N 1/00103; television transmission via satellite H04N 7/20) }

7/18526 . . . . { Arrangements for data linking, networking or transporting, or for controlling an end to end session (data switching networks H04L 12/00) }

7/18528 . . . . { Satellite systems for providing two-way communications service to a network of fixed stations, i.e. fixed satellite service or very small aperture terminal [VSAT] system) }

7/1853 . . . . { Satellite systems for providing telephony service to a mobile station, i.e. mobile satellite service (for selecting H04W) }

7/18532 . . . . { Arrangements for managing transmission, i.e. for transporting data or a signalling message }

7/18534 . . . . { for enhancing link reliability, e.g. satellites diversity }

7/18536 . . . . { (Shadowing compensation therefor, e.g. by using an additional terrestrial relay) }

7/18539 . . . . { (Arrangements for managing radio, resources, i.e. for establishing or releasing a connection) }

7/18541 . . . . { (for handover of resources) }

7/18543 . . . . { (for adaptation of transmission parameters, e.g. power control (for detecting or preventing errors in the information received H04L 1/00) ) }

7/18545 . . . . { (Arrangements for managing station mobility, i.e. for station registration or localisation) }

7/18547 . . . . { (for geolocalisation of a station (position fixing by direction or distance determination G01S 5/00) ) }

7/1855 . . . . { (using a telephonic control signal, e.g. propagation delay variation, Doppler frequency variation, power variation, beam identification) }
7/18552 . . . . . . . {using a telephonic control signal and a second ranging satellite (determining absolute distances from a plurality of spaced points of known location G01S 5/14) }
7/18554 . . . . . . . {using the position provided by an existing geolocalisation system }
7/18556 . . . . . . . {using a location database }
7/18558 . . . . . . . {Arrangements for managing communications, i.e. for setting up, maintaining or releasing a call between stations }
7/1856 . . . . . . . {for call routing }
7/18563 . . . . . . . {Arrangements for interconnecting multiple systems (data switching networks H04L 12/00) }
7/18565 . . . . . . . {Arrangements for preventing unauthorised access or for providing user protection (arrangements for secret or secure communication H04L 9/00) }
7/18567 . . . . . . . {Arrangements for providing additional services to the basic mobile satellite telephony service }
7/18569 . . . . . . . {Arrangements for system physical machines management, i.e. for construction operations control, administration, maintenance }
7/18571 . . . . . . . {for satellites; for fixed or mobile stations }
7/18573 . . . . . . . {for operations control, administration or maintenance }
7/18576 . . . . . . . {Satellite systems for providing narrowband data service to fixed or mobile stations, e.g. using a minisatellite, a microsatellite (for selecting H04W) }
7/18578 . . . . . . . {Satellite systems for providing broadband data service to individual earth stations (for selecting H04W; provisions for broadband connection, H04Q 11/0478) }
7/1858 . . . . . . . {Arrangements for data transmission on the physical system, i.e. for data bit transmission between network components }
7/18582 . . . . . . . {Arrangements for data linking, i.e. for data framing, for error recovery, for multiple access }
7/18584 . . . . . . . {Arrangements for data networking, i.e. for data packet routing, for congestion control (data switching networks H04L 12/00) }
7/18586 . . . . . . . {Arrangements for data transporting, e.g. for an end to end data transport or check }
7/18589 . . . . . . . {Arrangements for controlling an end to end session, i.e. for initialising, synchronising or terminating an end to end link }
7/18591 . . . . . . . {Arrangements for interconnecting multiple systems (data switching networks H04L 12/00) }
7/18593 . . . . . . . {Arrangements for preventing unauthorised access or for providing user protection (arrangements for secret or secure communication H04L 9/00) }
7/18595 . . . . . . . {Arrangements for adapting broadband applications to satellite systems }
7/18597 . . . . . . . {Arrangements for system physical machines management, i.e. for construction, operations control, administration, maintenance }
7/19 . . . . . . . Earth-synchronous stations
7/195 . . . . . . . Non-synchronous stations
7/204 . . . . . . . Multiple access
7/2041 . . . . . . . {Spot beam multiple access }
7/2043 . . . . . . . {Mixed mode, TDM and FDM systems }
7/2045 . . . . . . . {SS-FDMA, FDMA satellite switching }
7/2046 . . . . . . . {SS-TDMA, TDMA satellite switching }
7/2048 . . . . . . . {Frame structure, synchronisation or frame acquisition in SS-TDMA systems }
7/208 . . . . . . . Frequency-division multiple access ([FDMA])
7/212 . . . . . . . Time-division multiple access ([TDMA])
7/2121 . . . . . . . {Channels assignment to the different stations }
7/2123 . . . . . . . {Variable assignment, e.g. demand assignment }
7/2125 . . . . . . . {Synchronisation }
7/2126 . . . . . . . {using a reference station }
7/2128 . . . . . . . {Changing of the reference station }
7/216 . . . . . . . Code division or spread-spectrum multiple access ((CDMA, SSMA) ; spread spectrum techniques in general H04B 1/69)
7/22 . . . . . . . Scatter propagation systems (e.g. ionospheric, tropospheric or meteor scatter)
7/24 . . . . . . . for communication between two or more posts (wireless communication networks H04W)
7/26 . . . . . at least one of which is mobile
7/2603 . . . . . {Arrangements for wireless physical layer control (H04B 7/2612 takes precedence) }
7/2606 . . . . . {Arrangements for base station coverage control, e.g. by using relays in tunnels }
7/2609 . . . . . {Arrangements for range control, e.g. by using remote antennas }
7/2612 . . . . . {Arrangements for wireless medium access control, e.g. by allocating physical layer transmission capacity (H04B 7/2615 - H04B 7/2643 take precedence; provision for broadband connection H04Q 11/0478) }
7/2615 . . . . . {using hybrid frequency-time division multiple access [FDMA-TDMA] }
7/2618 . . . . . {using hybrid code-time division multiple access [CDMA-TDMA] }
7/2621 . . . . . {using frequency division multiple access [FDMA] (H04B 7/2615 takes precedence) }
7/2625 . . . . . {using common wave }
7/2628 . . . . . {using code-division multiple access [CDMA] or spread spectrum multiple access [SSMA] (H04B 7/2618 takes precedence) }
7/2631 . . . . . {for broadband transmission }
7/2634 . . . . . {for channel frequency control }
7/2637 . . . . . {for logical channel control }
7/264 . . . . . {for data rate control }
7/2643 . . . . . {using time-division multiple access [TDMA] (H04B 7/2615, H04B 7/2618 take precedence) }
7/2646 . . . . . {for broadband transmission }
7/265 . . . . . {for channel frequency control }
7/2653 . . . . . {for logical channel control }
7/2656 . . . . . {for structure of frame, burst }
10/00 Transmission systems employing electromagnetic waves other than radio-waves, e.g. infrared, visible or ultraviolet light, or employing corpuscular radiation, e.g. quantum communication

NOTE

Groups H04B 10/03, H04B 10/07, H04B 10/11, H04B 10/25, H04B 10/27, H04B 10/29 and H04B 10/40 - H04B 10/90, and their subgroups are based on IPC2013.01

10/03 Arrangements for fault recovery

WARNING

This group and its subgroups are not complete pending reclassification; see also H04B 10/07 and subgroups H04B 10/071 - H04B 10/0799

10/032 . . using working and protection systems ([H04B 10/0797 takes precedence])
10/035 . . using loopbacks
10/038 . . using bypasses
10/07 . Arrangements for monitoring or testing transmission systems; Arrangements for fault measurement of transmission systems
10/0705 . . [Prevention or detection of unauthorized access, e.g. tapping]
10/071 . . using a reflected signal, e.g. using optical time-domain reflectometers (OTDRs)
10/073 . . using an out-of-service signal ([H04B 10/071 takes precedence])
10/0731 . . [Testing or characterisation of optical devices, e.g. amplifiers]
10/152 . . . (Non-coherent direct-detection systems)
10/22 . . . (Transmission between two stations which are mobile relative to each other)

**WARNING**

This group and its subgroup is no longer used for classification of new documents as from March 1, 2012. The backlog of this group and its subgroup is being continuously reclassified to H04B 10/25 - H04B 10/2587 and H04B 10/70.

10/225 . . . (using optical fibre links)
10/25 . . . Arrangements specific to fibre transmission
{ (optical fibres per se, structural details of arrangements comprising optical fibres or other optical elements G02B 6/00) }

**WARNING**

This group and its subgroups are not complete pending reclassification; see also H04B 10/12 and its subgroups.

10/2503 . . . (Bidirectional transmission)
10/2504 . . . (Transmission components (H04B 10/40 takes precedence))
10/2507 . . . for the reduction or elimination of distortion or dispersion
10/25073 . . . [using spectral equalisation, e.g. spectral filtering]
10/25077 . . . due to chromatic dispersion
10/2513 . . . due to chromatic dispersion
10/25133 . . . (including a lumped electrical or optical dispersion compensator (H04B 10/2519 H04B 10/2525 take precedence) ; optical dispersion compensators involving optical fibres per se G02B 6/293)
10/25137 . . . [using pulse shaping at the transmitter, e.g. pre-chirping or dispersion supported transmission (DST)]
10/2519 . . . using Bragg gratings ((Bragg gratings per se G02B 6/02076; devices using fibre gratings for dispersion control per se G02B 6/29316))
10/2525 . . . using dispersion-compensating fibres
{ (dispersion-tailored or dispersion compensation fibres per se G02B 6/02214) }
with dispersion management, i.e. using a combination of different kind of fibres in the transmission system (devices with different kinds of fibres for dispersion control per se G02B 6/293741)
10/2531 . . . using spectral inversion
10/2537 . . . due to scattering processes, e.g. Raman or Brillouin scattering
10/2543 . . . due to fibre non-linearities, e.g. Kerr effect
{ (non-linear optical devices G02F 1/35) }
10/255 . . . Self-phase modulation [SPM]
10/2557 . . . Cross-phase modulation [XPM]
10/2563 . . . Four-wave mixing [FWM]
10/2569 . . . due to polarisation mode dispersion [PMD]
10/2572 . . . due to forms of polarisation-dependent distortion other than PMD
10/2575 . . . Radio-over-fibre, e.g. radio frequency signal modulated onto an optical carrier ((sub-carrier multiplexing H04J 14/0298))

10/25761 . . . (Optical arrangements for CATV or video distribution (adaptations of television systems for optical transmission H04N 7/22))
10/25752 . . . (Optical arrangements for wireless networks)
10/25753 . . . (Distribution optical network, e.g. between a base station and a plurality of remote units (WDM networks in general H04J 14/0278))
10/25754 . . . (Star network topology)
10/25755 . . . (Ring network topology)
10/25756 . . . (Bus network topology)
10/25758 . . . [between a central unit and a single remote unit by means of an optical fibre]
10/25759 . . . (Details of the reception before the optical fibre)
10/2581 . . . Multimode transmission (mode multiplex systems H04J 14/04)
10/2587 . . . using a single light source for multiple stations
10/27 . . . Arrangements for networking (free-space networks H04B 10/11, WDM networks H04J 14/0278, specific to radio-over-fibre H04B 10/25753)
10/271 . . . (Combination of different networks, e.g. star and ring configuration in the same network or two ring networks interconnected)
10/272 . . . Star-type networks (or tree-type networks)
10/2725 . . . [Star-type networks without a headend]
10/275 . . . Ring-type networks
10/2755 . . . [Ring-type networks with a headend]
10/278 . . . Bus-type networks
10/29 . . . Repeaters
10/291 . . . in which processing or amplification is carried out without conversion of the main signal from optical form
{ (fibre optical amplifiers per se H01S 3/067) }
10/2912 . . . [characterised by the medium used for amplification or processing]
10/2914 . . . [using lumped semiconductor optical amplifiers [SOA] (semiconductor optical amplifiers per se H01S 5/50)]
10/2916 . . . [using Raman or Brillouin amplifiers (Raman or Brillouin amplifiers per se H01S 3/302)]
10/2918 . . . [Two-way repeaters, i.e. repeaters amplifying separate upward and downward lines]
10/293 . . . Signal power control
10/2931 . . . [using AGC (H04B 10/294 takes precedence)]
10/2933 . . . [considering the whole optical path]
10/2935 . . . [with a cascade of amplifiers]
10/2937 . . . [Systems with a repeater placed only at the beginning or the end of the system, i.e. repeaterless systems, e.g. systems with only post and pre-amplification]
10/2939 . . . [Network aspects]
10/294 . . . in a multiwavelength system, e.g. gain equalisation [(for general power control in WDM systems, see also H04J 14/0221)]
10/2941 . . . [using an equalising unit, e.g. a filter (H04B 10/296 takes precedence)]
10/2942 . . . [using automatic gain control [AGC] (H04B 10/296 takes precedence)]
10/296 . . . Transient power control, e.g. due to channel add/drop or rapid fluctuations in the input power
Transmitters and moderating, G21K 1/00  

H04B 10/90

Details of coding or modulation  

H04J 14/06

Transmitters

10/40 Transceivers

10/50 Transmitters

10/501 (Structural aspects)

10/502 [LED transmitters]

10/503 [Laser transmitters]

10/504 [using direct modulation]

10/505 [using external modulation]

10/5051 [using a series, i.e. cascade, combination of modulators]

10/5053 [using a parallel, i.e. shunt, combination of modulators]

10/5055 [using a pre-coder]

10/5057 [using a feedback signal generated by analysing the optical output]

10/50572 [to control the modulating signal amplitude including amplitude distortion]

10/50575 [to control the modulator DC bias]

10/50577 [to control the phase of the modulating signal]

10/5059 [using a feed-forward signal generated by analysing the optical or electrical input]

10/50593 [to control the modulating signal amplitude including amplitude distortion]

10/50595 [to control the modulator DC bias]

10/50597 [to control the phase of the modulating signal]

10/506 [Multi-wavelength transmitters (WDM systems in general H04J 14/02)]

10/508 Pulse generation, e.g. generation of solitons

10/516 Details of coding or modulation

10/5161 [Combination of different modulation schemes]

10/5162 [Return-to-zero modulation schemes]

10/5165 [Carrier suppressed; Single sideband; Double sideband or vestigial]

10/5167 [Duo-binary; Alternative mark inversion; Phase shaped binary transmission]

10/524 Pulse modulation

10/532 Polarisation modulation [, e.g. polarization switching or transmission of a single data stream on two orthogonal polarizations (polarization multiplexed systems H04J 14/06)]

10/54 Intensity modulation

10/541 [Digital intensity or amplitude modulation]

10/548 Phase or frequency modulation

10/556 Digital modulation, e.g. differential phase shift keying [DPSK] or frequency shift keying [FSK]

10/5561 [Digital phase modulation]

10/5563 [Digital frequency modulation]

10/564 Power control

10/572 Wavelength control

10/58 Compensation for non-linear transmitter output

10/588 in external modulation systems

10/60 Receivers

10/61 Coherent receivers (i.e., optical receivers using an optical local oscillator (delay line interferometer based DPSK optical receivers H04B 10/677))

10/611 [Intardyne, i.e., coherent receivers with a free running local oscillator having a frequency close but not phase-locked to the carrier signal]

10/612 [for optical signals modulated with a format different from binary or higher-order PSK [X-PSK], e.g. QAM, DPSK, FSK, MSK, ASK]

10/613 [including phase diversity, e.g., having in-phase and quadrature branches, as in QPSK coherent receivers]

10/614 [comprising one or more polarization beam splitters, e.g. polarization multiplexed [PolMux] X-PSK coherent receivers, polarization diversity heterodyne coherent receivers (H04J 14/06 takes precedence)]

10/615 [Arrangements affecting the optical part of the receiver (adjustment of the frequency or phase of the local oscillator in homodyne receivers H04B 10/63; use of polarization beam splitters H04B 10/614)]

10/6151 [comprising a polarization controller at the receiver's input stage]

10/616 Details of the electronic signal processing in coherent optical receivers.

10/6161 [Compensation of chromatic dispersion]

10/6162 [Compensation of polarization related effects, e.g., PMD, PDL]

10/6163 [Compensation of non-linear effects in the fiber optic link, e.g. self-phase modulation [SPM], cross-phase modulation [XPM], four wave mixing [FWM]]

10/6164 [Estimation or correction of the frequency offset between the received optical signal and the optical local oscillator]

10/6165 [Estimation of the phase of the received optical signal, phase error estimation or phase error correction]

10/6166 [Polarization demultiplexing, tracking or alignment of orthogonal polarization components (polarisation multiplex systems H04J 14/06)]
Radiation systems employing non-photonic corpuscular transmission systems, e.g. transmission power feeding or optical transmission through water for in groups H04B 10/03

Transmission systems in which the medium consists of the earth or a large mass of water thereon, e.g. earth telegraphy (line transmission systems with earth or water return H04B 3/00; geophysics, detecting hidden masses G01H, G01V 1/16, G01V 1/18, G01V 3/00; sonars G01S 1/72; applications of earth currents G01S 1/72, H05F 7/00: direction and distance determination with lead cables G01S 13/00)

Transmission systems not characterised by the medium used for transmission (details thereof H04B 1/00)

Transmission systems characterised by the medium for transmission, not provided for in groups H04B 3/00 - H04B 11/00

Transmission systems in which the medium consists of the earth or a large mass of water thereon, e.g. earth telegraphy (line transmission systems with earth or water return H04B 3/00; geophysics, detecting hidden masses G01H, G01V 1/16, G01V 1/18, G01V 3/00; sonars G01S 1/72; applications of earth currents G01S 1/72, H05F 7/00: direction and distance determination with lead cables G01S 13/00)
Monitoring; Testing (of line transmission systems) H04B 3/46; arrangements for monitoring or testing transmission systems employing electromagnetic waves other than radio waves H04B 10/07

17/0082 . . . (using service channels; using auxiliary channels)
17/0085 . . . (using test signal generators)
17/0087 . . . (using auxiliary channels or channel simulators)
17/10 . . . of transmitters
17/101 . . . [for measurement of parameters]
17/102 . . . [of radiated power at antenna port]
17/103 . . . [of reflected power, e.g. return loss]
17/104 . . . [of other parameters, e.g. DC offset, delay or propagation times]
17/11 . . . for calibration
17/12 . . . of transmit antennas, e.g. of the amplitude or phase
17/13 . . . of power amplifiers, e.g. gain or non-linearity
17/14 . . . of the whole transmission and reception path, e.g. self-test loop-back
17/15 . . . Performance testing
17/16 . . . Test equipment located at the transmitter
17/17 . . . Detection of non-compliance or faulty performance, e.g. response deviations (H04B 17/18 takes precedence)
17/18 . . . Monitoring during normal operation
17/19 . . . Self-testing arrangements
17/20 . . . of receivers
17/21 . . . for calibration; for correcting measurements
17/23 . . . Indication means, e.g. displays, alarms, audible means
17/24 . . . with feedback of measurements to the transmitter
17/26 . . . using historical data, averaging values or statistics
17/27 . . . for locating or positioning the transmitter
17/29 . . . Performance testing
17/30 . . . of propagation channels
17/309 . . . Measuring or estimating channel quality parameters
17/318 . . . Received signal strength
17/327 . . . Received signal code power [RSCP]
17/336 . . . Signal-to-interference ratio [SIR] or carrier-to-interference ratio [CIR]
17/345 . . . Interference values (H04B 17/336 takes precedence)
17/354 . . . Adjacent channel leakage power
17/364 . . . Delay profiles
17/373 . . . Predicting channel quality parameters
17/382 . . . for resource allocation, admission control or handover
17/391 . . . Modelling the propagation channel
17/3911 . . . [Fading models or fading generators]
17/3912 . . . [Simulation models]
17/3913 . . . [Predictive models]
17/40 . . . of relay systems
17/401 . . . [with selective localization]
17/402 . . . [using different frequencies]
17/403 . . . [generated by local oscillators]
17/404 . . . [selected by local filters]
17/405 . . . [generated by local multipliers, dividers, modulators]
17/406 . . . [using coded addresses]
17/407 . . . [without selective localization]
17/408 . . . [using successive loop-backs]
17/409 . . . [by means of resistance, voltage or current measurement]

Indexing scheme relating to details of transmission systems not covered by a single group of H04B 3/00 - H04B 13/00

2201/00 . . . Orthogonal indexing scheme relating to spread spectrum techniques in general
2201/069 . . . Cognitive radio
2201/0694 . . . WPAN
2201/0696 . . . relating to Dowlink
2201/0698 . . . relating to Uplink
2201/0707 . . . relating to direct sequence modulation
2201/070701 . . . featuring pilot assisted reception
2201/070702 . . . Inter-cell-related aspects
2201/070703 . . . using multiple or variable rates
2201/070705 . . . Rate detection
2201/070706 . . . with means for reducing the peak-to-average power ratio
2201/070707 . . . Efficiency-related aspects
2201/070709 . . . with discontinuous detection
2201/07071 . . . with dynamic control of receiver resources
2201/070711 . . . with modular structure
2201/070713 . . . Reducing computational requirements
2201/070714 . . . Reducing hardware requirements
2201/070715 . . . with application-specific features
2201/070716 . . . Quadrature
2201/070718 . . . Particular systems or standards
2201/070719 . . . CDMA2000
2201/07072 . . . HDR
2201/070722 . . . HSDPA/HSUPA
2201/070723 . . . Multi-carrier HSPA
2201/070724 . . . UMTS
2201/070726 . . . Asynchronous CDMA
2201/070727 . . . using fast Fourier transform
2201/070728 . . . Frequency aspects
2201/07073 . . . Direct sequence modulation synchronisation
2201/070733 . . . 2D search
2201/070736 . . . DSA
2201/07097 . . . Direct sequence modulation interference
2201/0709709 . . . Methods of preventing interference
2201/0709718 . . . Determine interference
2201/0709727 . . . GRAKE type RAKE receivers
2201/0709736 . . . Hybrid interference mitigation schemes
2201/0709745 . . . Iterative interference mitigation schemes
2201/0709754 . . . Blind joint detection
2201/0709763 . . . Joint detection using feedback
2201/0709772 . . . Joint detection using feedforward
2201/0709781 . . . Linear detectors for joint detection
2201/070979 . . . Fat finger issues in RAKE receivers
2201/0713 . . . Frequency hopping
2201/071307 . . . Partial band interference
2201/071315 . . . Wide band interference
2201/071323 . . . Adaptive systems
2201/07133 . . . Asymmetric systems
2201/071338 . . . Asynchronous systems
2201/071346 . . . Bluetooth
2201/071353 . . . Fast frequency hopping
2201/071361 . . . Slow frequency hopping
2201/071369 . . . OFCHM
2201/071376 . . . Threshold
Look-up tables
Orthogonal indexing scheme relating to impulse radio
Diversity
Applied to ranging
Transmitted reference
Spectrum issues

Indexing scheme relating to line transmission systems
Aspects of powerline communications not already covered by H04B 3/54 and its subgroups
Methods of transmitting or receiving signals via power distribution lines
by modifying wave form of the power source
by adding signals to the wave form of the power source
using zero crossing information
improving S/N by matching impedance, noise reduction, gain control
Applications for powerline communications
Remote metering
Wired telephone
Wireless systems or telephone
Local network
Audio/video application, e.g. interphone
Adapter and plugs
Monitor sensor; Alarm systems
Systems for power line communications
using three phases conductors
via DC power distribution
adapted for drill or well combined with data transmission
using repeaters
using coupling circuits
cables
using filtering and bypassing
having measurements and testing channel

Indexing scheme relating to optical transmission systems
Devices including multiple stages, e.g., multi-stage optical amplifiers or dispersion compensators
Devices for generating or processing an RF signal by optical means
Monitoring an optical transmission system using a supervisory signal (OAM for WDM transmission)
using alarms
using an overhead signal
using a superposed, over-modulated signal
using a pilot tone
using a separate fibre
using a separate wavelength
Shut-down or eye-safety
Distortion or dispersion compensation
after the transmission line, i.e. post-compensation
before the transmission line, i.e. pre-compensation
at the repeater, i.e. repeater compensation
treating each wavelength or wavelength band separately

Reducing interference at the transmission system level
Reduction of burst noise, e.g. in TDMA systems
by inhibiting burst transmission
by smoothing the transmission power envelope
Reduction of clock or synthesizer reference frequency harmonics
by changing the frequency of clock or reference frequency
by stopping a clock generator
by modulation dispersion
by avoiding a reception frequency range
Reduction of switch mode power supply ripple
Optical conversion of optical modulation formats, e.g., from optical ASK to optical PSK
Optical NRZ to RZ conversion, or vice versa
Optical conversion of optical modulation formats, e.g., from optical ASK to optical PSK