

# Index

- 3rd Generation Partnership Project (3GPP) 1, 9, 61
- 16-quadrature amplitude modulation (16QAM) 35, 133
  
- absolute grant scope 75
- absolute grant value 75
- ACK *see* acknowledgement
- ACLR *see* adjacent channel leakage ratio
- ACS *see* adjacent channel selectivity
- acknowledgement (ACK) 72
- active sets 90
- adaptive multi-rate (AMR) 2
- adjacent channel leakage ratio (ACLR) 231
- adjacent channel selectivity (ACS) 233
- admission control 97, 149
- Alliance for Telecommunications Industry Solutions (ATIS) 11
- allocation retention priority (ARP) 99
- always-on connectivity 190
- AMR *see* adaptive multi-rate
- antenna correlation 237
- antenna diversity 160, 181
- ARIB *see* Association of Radio Industries and Businesses
- ARP *see* allocation retention priority
- Association of Radio Industries and Businesses (ARIB) 11
- ATIS *see* Alliance for Telecommunications Industry Solutions
  
- beamforming 161, 181
- bi-casting 52
- binary phase shift keying (BPSK) modulation 63
  
- bit scrambling 36
- BPSK *see* binary phase shift keying
  
- CC *see* Chase combining
- CCSA *see* China Communications Standards Association
- Cell\_DCH 29, 191
- Cell\_FACH 29, 191
- Cell\_PCH 29, 191
- channel coding 36
- channel estimation 70
- channel quality information (CQI) 43, 107 table 48
- channelization codes 96
- Chase combining (CC) 38, 64, 174
- China Communications Standards Association (CCSA) 11
- code multiplexing 41, 113
- compressed mode 52, 91
- congestion indication 116
- constellation rearrangement 36
- coverage 131
- CQI *see* channel quality information
- 'cubic metric' 230
  
- data description indicator (DDI) 81
- DCCH *see* dedicated control channel
- DCH *see* dedicated channel
- DDI *see* data description indicator
- dedicated channel (DCH) active sets 91
- dedicated control channel (DCCH) 59
- dedicated physical control channel (DPCCH) 63
  
- data description indicator (DDI) 81
- DCCH *see* dedicated control channel
- DCH *see* dedicated channel
- DDI *see* data description indicator
- dedicated channel (DCH) active sets 91
- dedicated control channel (DCCH) 59
- dedicated physical control channel (DPCCH) 63

- dedicated physical data channel (DPDCH) 63
- dedicated traffic channel (DTCH) 59
- discard timer 57, 99, 222
- downlink shared channel (DSCH) 31
- DPCCH *see* dedicated physical control channel
- DPDCH *see* dedicated physical data channel
- drive test 144, 157
- DSCH *see* downlink shared channel
- DTCH *see* dedicated traffic channel
  
- E-AGCH *see* E-DCH absolute grant channel
- E-DCH *see* enhanced dedicated channel
- E-DCH absolute grant channel (E-AGCH) 63, 75
  - active set 86, 91
- E-DCH dedicated physical control channel (E-DPCCH) 70
- E-DCH HARQ indicator channel (E-HICH) 63, 72
- E-DCH radio network temporary identity (E-RNTI) 76, 88
- E-DCH relative grant channel (E-RGCH) 63, 73
- E-DCH transport format combination (E-TFC) 82
  - selection 83–84
- E-DCH transport format combination indicator (E-TFCI) 71
- E-DPCCH *see* E-DCH dedicated physical control channel
- E-DPDCH *see* enhanced dedicated physical data channel
- effective antenna separation 237
- E-HICH *see* E-DCH HARQ indicator channel
- enhanced dedicated channel (E-DCH) 61
  - transport channel 66
- enhanced dedicated physical data channel (E-DPDCH) 63, 68
- equalizer receiver 159, 236
- E-RNTI *see* E-DCH radio network temporary identity
- E-RGCH *see* E-DCH relative grant channel
- E-TFC *see* E-DCH transport format combination
- E-TFCI *see* E-DCH transport format combination indicator
  
- ETSI *see* European Telecommunications Standards Institute
- European Telecommunications Standards Institute (ETSI) 11
  
- FACH *see* forward access channel
- fast cell selection (FCS) 12
- FCS *see* fast cell selection
- F-DPCH *see* fractional dedicated physical channel
- fixed reference channels (FRCs) 136, 168
- flow control 26
- forward access channel (FACH) 31
- fractional dedicated physical channel (F-DPCH) 33, 45, 114, 221
- FRCs *see* fixed reference channels
- frequency variants 239
  
- gain factor 85
- gaming 210
- GBR *see* guaranteed bit rate
- GPRS attach 193
- guaranteed bit rate (GBR) 99, 118, 224
  
- handover 118
- happy bit 72, 85–86
- HARQ *see* hybrid-ARQ
- high-speed downlink packet access (HSDPA)
  - MAC layer 57
  - terminal capability 54
- high-speed packet access (HSPA) 4
- high-speed dedicated physical control channel (HS-DPCCH) 33, 43, 135
  - power offsets 135
- high-speed downlink shared channel (HS-DSCH) 33
  - link adaptation 47, 106, 155
- high-speed physical downlink shared channel (HS-PDSCH) 35
- high-speed shared control channel (HS-SCCH) 33, 40
  - power control 108, 134, 156
- high-speed uplink packet access (HSUPA) 61
  - scheduling 85–86
- higher order modulation 39

- highest priority logical channel buffer status (HLBS) 82
- highest priority logical channel ID (HLID) 82
- HLBS *see* highest priority logical channel buffer status
- HLID *see* highest priority logical channel ID
- HSDPA *see* high-speed downlink packet access
- HS-DPCCH *see* high-speed dedicated physical control channel
- HS-DSCH *see* high-speed downlink shared channel
- HSPA *see* high-speed packet access
- HS-PDSCH *see* high-speed physical downlink shared channel
- HS-SCCH *see* high-speed shared control channel
- HSUPA *see* high-speed uplink packet access
- hybrid-ARQ (HARQ) 37
  - information 43
  - process 77–78
  
- in-band blocking 234
- incremental redundancy (IR) 38, 64, 174
- indoor coverage 144
- interference rejection combining 181
- inter-modulation 236
- inter-system cell change 202
- inter-system handover 205
- IP header compression 219
- IR *see* incremental redundancy
- ITU Pedestrian A 143
- ITU Vehicular A 143
- Iub
  - interface 25
  - parameters 56, 89
  - transmission 149
- Iu-PS 25
  
- keep alive messages 212
  
- latency 6, 206
- link adaptation 31, 47, 106, 128
- link budget 130
- location area 202
- logical channels 59
  
- long-term evolution (LTE) 16
- LTE *see* long-term evolution
  
- MAC *see* medium access control
- maximal ratio combining (MRC) 181
- maximum input level 237
- medium access control (MAC) 23, 61
  - MAC-d 58, 85, 88
  - MAC-es/s 25
  - MAC-hs 24, 58, 104
- micro-cells 144
- MIMO *see* multiple input multiple output
- min-GBR *see* minimum guaranteed bit rate
- minimum guaranteed bit rate (min-GBR) scheduler 112
- mobile-TV 211
- MRC *see* maximal ratio combining
- ‘multi-user diversity’ 113, 138
- multiple input multiple output (MIMO) 12, 15, 162
- multiuser detection 181
  
- NACC *see* network-assisted cell change
- NACK *see* negative acknowledgement
- narrowband blocking 234
- N parameter 81
- negative acknowledgement (NACK) 72
- network-assisted cell change (NACC) 53, 205
- non-scheduled transmissions 88, 224
  
- OFDM *see* orthogonal frequency division multiplexing
- on/off keying 72, 74
- orthogonal frequency division multiplexing (OFDM) 16
- orthogonal variable spreading factors (OVSFs) 68
- outer loop HS-DSCH link adaptation 108
- outer loop power control 109
- OVSFs *see* orthogonal variable spreading factors
  
- Packet Data Convergence Protocol (PDCP) 23
- packet handover 53

- packet scheduler 110
- PDCP *see* Packet Data Convergence Protocol
- PDP context activation 193
- PDU *see* protocol data unit
- phase discontinuity 232
- physical channel segmentation 39
- physical layer operation procedure 49
- physical layer retransmission 31, 33
- power allocation 98
- power classes 229
- power consumption 212
- power reduction 230
- pre-/post-ambles 44
- primary UE-id 76, 88
- 'proportional fair' (PF) packet scheduler 112, 138, 220
- protocol backward compatibility 13
- protocol data unit (PDU) size 88
- push e-mail 212
- push-to-talk 209
  
- QoS *see* quality of service
- QPSK modulation 133
- quality of service (QoS) 99
  - differentiation 85
  - parameters 117
  
- radio link control (RLC) 23
  - acknowledged mode 23
  - transparent mode 23
  - unacknowledged mode 23
- radio resource connection (RRC)
  - setup 193
  - state change 200
  - states 29, 191
- radio resource management (RRM) 95
- rake receiver 159
- received total wideband power (RTWP) 80, 89
- receiver diversity 159, 236
- receiver sensitivity 232
- retransmission sequence number (RSN) 72
- rich calls 218
- RLC *see* radio link control
- RLC-acknowledged mode of operation 34
- robust header compression (ROHC) 219
- ROHC *see* robust header compression
  
- round robin (RR) 111, 138, 161
- round trip time (RTT) 153, 206
- routing area 202
- RR *see* round robin
- RRC *see* radio resource connection
- RRM *see* radio resource management
- RSN *see* retransmission sequence number
- RTT *see* round trip time
- RTWP *see* received total wideband power
  
- SC-FDMA *see* single-carrier frequency division multiple access
- scheduling 64, 85–86
- scheduling information (SI) 81, 85
- scheduling priority indicator (SPI) 99, 117
- secondary UE-id 76, 88
- serving E-DCH cell 72, 86, 91
- serving E-DCH radio link set 74
- serving HSDPA cell 91
- serving HS-DSCH cell 50
  - change 51, 101
- Shannon limit 128
- SI *see* scheduling information
- signal-to-interference-plus-noise ratio (SINR) 124
- 'silent mode' 89
- single-carrier frequency division multiple access (SC-FDMA) 16
- SINR *see* signal-to-interference-plus-noise ratio
- soft combining 38
- soft handover 79, 86, 90, 100
- SPI *see* scheduling priority indicator
- streaming 148, 211
  
- TC *see* traffic class
- TCP *see* Transmission Control Protocol
- TEBS *see* total E-DCH buffer status
- Telecommunications Technology Association (TTA) 11
- Telecommunication Technology Committee (TTC) 11
- terminal capability 48
- terminal categories 92
- TFRCs *see* transport format and resource combinations
- THP *see* traffic handling priority

- total E-DCH buffer status (TEBS) 81
- traffic class (TC) 99
- traffic handling priority (THP) 99
- transmit diversity 161
- Transmission Control Protocol (TCP) 204, 207
  - slow start 208
- transmission sequence number (TSN) 81
- transmission time interval (TTI) length 69, 76
- transport format and resource combinations (TFRCs) 56, 126
- TSN *see* transmission sequence number
- TTA *see* Telecommunications Technology Association
- TTC *see* Telecommunication Technology Committee
- UE capabilities 92
- UE transmission power headroom (UPH) 82
- UPH *see* UE transmission power headroom
- URA\_PCH 29, 191
- voice over IP (VoIP) 209
- VoIP *see* voice over IP
- WCDMA *see* wideband code division multiple access
- wideband AMR codec 3
- wideband code division multiple access (WCDMA) 9, 61









