



LTE

The UMTS Long Term Evolution

FROM THEORY TO PRACTICE

Edited by: Stefania Sesia • Issam Toufik • Matthew Baker

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From Theory to Practice

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List of Acronyms

3GPP 3 rd Generation Partnership Project	AS Angular Spread*
3GPP2 3 rd Generation Partnership Project 2	A-SEM Additional SEM
AC Access Class	ATDMA Advanced TDMA
ACI Adjacent Channel Interference	ATIS Alliance for Telecommunications Industry Solutions
ACIR Adjacent Channel Interference Ratio	AuC Authentication Centre
ACK Acknowledgement	AWGN Additive White Gaussian Noise
ACLR Adjacent Channel Leakage Ratio	BCC Base station Colour Code
ACS Adjacent Channel Selectivity	BCH Broadcast CHannel
ADC Analogue to Digital Converter	BCCH Broadcast Control CHannel
ADSL Asymmetric Digital Subscriber Line	BCJR Algorithm named after its inventors, Bahl, Cocke, Jelinek and Raviv
AGI Antenna Gain Imbalance	BER Bit Error Rate
AM Acknowledged Mode	BLER BLock Error Rate
AMC Adaptive Modulation and Coding	BM-SC Broadcast-Multicast Service Centre
AMPS Analogue Mobile Phone System	BP Belief Propagation
AMR Adaptive MultiRate	BPRE Bits Per Resource Element
ANR Automatic Neighbour Relation	bps bits per second
ANRF Automatic Neighbour Relation Function	BPSK Binary Phase Shift Keying
AoA Angle-of-Arrival	BSIC Base Station Identification Code
AoD Angle-of-Departure	BSR Buffer Status Reports
APN Access Point Name	CAZAC Constant Amplitude Zero AutoCorrelation
APP A-Posteriori Probability	CB Circular Buffer
ARFCN Absolute Radio Frequency Channel Number	CCCH Common Control CHannel
ARIB Association of Radio Industries and Businesses	CCE Control Channel Element
ARP Almost Regular Permutation*	CCI Co-Channel Interference
ARP Allocation and Retention Priority*	CCO Cell Change Order
ARQ Automatic Repeat reQuest	CCSA China Communications Standards Association
AS Access Stratum*	

xxx

CDD Cyclic Delay Diversity
CDF Cumulative Distribution Function
CDL Clustered Delay Line
CDM Code Division Multiplex(ed/ing)
CDMA Code Division Multiple Access
C/I Carrier-to-Interference ratio
CF Contention-Free
CFI Control Format Indicator
CFO Carrier Frequency Offset
CINR Carrier-to-Interference-and-Noise Ratio
CIR Channel Impulse Response
CM Cubic Metric
CMHH Constant Modulus HouseHolder
CN Core Network
CODIT UMTS Code Division Testbed
COFDM Coded OFDM
CP Cyclic Prefix
CPICH Common Pilot CHannel
CPR Common Phase Rotation
CPT Control PDU Type
CQI Channel Quality Indicator
CRC Cyclic Redundancy Check
C-RNTI Cell Radio Network Temporary Identifier
CS Circuit-Switched
CSG Closed Subscriber Group
CSI Channel State Information
CSIT Channel State Information at the Transmitter
CTF Channel Transfer Function
CVA Circular Viterbi Algorithm
CVQ Channel Vector Quantization
CW Continuous-Wave
DAB Digital Audio Broadcasting
DAC Digital to Analogue Converter
dB deci-Bel
d.c. direct current
DCCH Dedicated Control CHannel

LIST OF ACRONYMS

DCFB Direct Channel FeedBack
DCI Downlink Control Information
DFT Discrete Fourier Transform
DFT-S-OFDM DFT-Spread OFDM
Diffserv Differentiated Services
DL DownLink
DL-SCH DownLink Shared CHannel
DMB Digital Mobile Broadcasting
DMRS DeModulation RS
DOA Direction Of Arrival
DPC Dirty-Paper Coding
DRB Data Radio Bearer
DRX Discontinuous Reception
DS-CDMA Direct-Sequence Code Division Multiple Access
DSP Digital Signal Processor
DTCH Dedicated Traffic CHannel
DTX Discontinuous Transmission
DVB-H Digital Video Broadcasting – Handheld
DVB-T Digital Video Broadcasting – Terrestrial
DwPTS Downlink Pilot TimeSlot
ECM EPS Connection Management
EDGE Enhanced Data rates for GSM Evolution
EESM Exponential Effective SINR Mapping
EMM EPS Mobility Management
eNodeB evolved NodeB
EPA Extended Pedestrian A
EPC Evolved Packet Core
EPS Evolved Packet System
ESP Encapsulating Security Payload
ETSI European Telecommunications Standards Institute
ETU Extended Typical Urban
E-UTRA Evolved-UTRA
E-UTRAN Evolved-UTRAN
EVA Extended Vehicular A
EVM Error Vector Magnitude
FACH Forward Access CHannel
FB Frequency Burst

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