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LIST OF SYMBOLS AND ABBREVIATIONS

$x(t)$	- A basic OFDM signal
AGU	- Address Generation Unit
ASIC	- Application Specific Integrated Circuit
ADRES	- Architecture for Dynamically Reconfigurable Embedded Systems
ALU	- Arithmetic and Logic Unit
BPE	- Butterfly Processing Element
CS	- Carry-Save
CGRA	- Coarse Grained Reconfigurable Architecture
CGRC	- Coarse Grained Reconfigurable Cell
CDMA	- Code Division Multiple Access
CDMA 2000 1X/EV-DO	- Code Division Multiple Access 2000 1X Evolution-Data Optimized
C_s	- Combined spreading and scrambling code
CPICH	- Common Pilot Channel
CCU	- Communication and Configuration Unit
a_k^m	- Complex modulation symbol applied to the k^{th} subcarrier during the m^{th} OFDM symbol duration
CLB	- Configurable Logic Block
CSM	- Constant Shifts Method
CORDIC	- COordinate Rotation DIgital Computer
CP	- Cyclic Prefix
CRC	- Cyclic Redundancy Check
DFG	- Data Flow Graph
DIF	- Decimation-in-Frequency

DIT	- Decimation-in-Time
DSP	- Digital Signal Processor
DSL	- Digital Subscriber Line
DVB	- Digital Video Broadcast
DVB-H	- Digital Video Broadcast-Handheld
DMA	- Direct Memory Access
DFT	- Discrete Fourier Transform
DReAM	- Dynamically Reconfigurable Architecture for Mobile systems
EDGE	- Enhanced Data rate for Global Evolution
FFT	- Fast Fourier Transform
FPGA	- Field Programmable Gate Array
FIR	- Finite Impulse Response
FSM	- Finite State Machine
4G	- Fourth Generation
FDD	- Frequency Division Duplex
FU	- Functional Unit
GPRS	- General Packet Radio Services
GPP	- General Purpose Processor
GSM	- Global System for Mobile communications
HLL-HDL	- High Level Language Hardware Descriptive Language
HLS	- High Level Synthesis
HSPA	- High Speed Packet Access
IOB	- Input Output Block
$x(n)$	- Input signal to 8-point Butterfly structure
IEEE	- Institute of Electrical and Electronics Engineers
IC	- Integrated Circuit
ISDB-T	- Integrated Services Digital Broadcasting-Terrestrial television

IP	- Intellectual Property
IMS	- Intellectual property Multimedia Subsystem
IS-95	- Interim Standard-95
IMT-2000	- International Mobile Telecommunications-2000
ITU	- International Telecommunication Union
ISP	- Internet Service Providers
IDFT	- Inverse Discrete Fourier Transform
IFFT	- Inverse Fast Fourier Transform
IMDCT	- Inverse Modified Discrete Cosine Transform
$x_k(t)$	- k^{th} modulated subcarrier
L_{sf}	- Length of spreading factor
LTE	- Long Term Evolution
LUT	- Look Up Table
LLP	- Loop Level Parallelism
MC-DS-CDMA	- Multi Carrier-Direct Sequence-Code Division Multiple Access
MIMO	- Multi Input Multi Output
MC-CDMA	- Multicarrier-Code Division Multiple Access
MAI	- Multiple Access Interference
MIMD	- Multiple Instruction-stream Multiple Data-stream
$b(t)$	- Narrowband user information signal
NFC	- Near Field Communication
N_c	- Number of samples
N	- Number of samples after zero padding
OFDM	- Orthogonal Frequency Division Multiplexing
OVSF	- Orthogonal Variable Spreading Factor
$y(t)$	- Output of DS spread spectrum transmitter
$Y_i(n)$	- Output of the i^{th} RAKE finger
$X(K)$	- Output signal of 8-point Butterfly structure

PE	- Processing Element
PEAS	- Processing Element Adder Subtractor
PEM	- Processing Element Multiplier
PES	- Processing Element Slice
PP	- Processing Part
PPA	- Processing Part Array
PSM	- Programmable Shifts Method
$c(t)$	- Pseudo-random Noise code sequence
QAM	- Quadrature Amplitude Modulation
QPSK	- Quadrature Phase Shift Keying
RAM	- Random Access Memory
R	- Received signal
RAW	- Reconfigurable Architecture Workstation
RAU	- Reconfigurable Arithmetic Unit
RC	- Reconfigurable Cell
RFU	- Reconfigurable Functional Unit
RM	- Reconfigurable Modem
RaPiD	- Reconfigurable Pipelined Datapath
RPU	- Reconfigurable Processing Unit
RSoC	- Reconfigurable System on Chip
RISC	- Reduced Instruction Set Computer
RISP	- Reduced Instruction Set Processor
RTL	- Register Transfer Logic
RTR	- Run Time Reconfiguration
X_n	- Sampled OFDM signal
f_s	- Sampling rate
T_s	- Sampling Time
2G	- Second Generation
SNR	- Signal-to-Noise Ratio

SCCP	- Single Carrier Cyclic Prefix
SDR	- Software Defined Radio
SF	- Spreading Factor
SRAM	- Static Random Access Memory
f	- Subcarrier spacing
T_u	- subcarrier symbol rate
SoC	- System on Chip
T-DMB	- Terrestrial-Digital Multimedia Broadcast
3G	- Third Generation
3GPP	- Third Generation Partnership Project
TDD	- Time Division Duplex
TD-SDMA	- Time Division-Spatial Division Multiple Access
W	- Twiddle factor
UMTS	- Universal Mobile Telecommunications Systems
VHDL	- Very High Speed Integrated circuit Hardware Descriptive Language
VLSI	- Very Large Scale Integrated
VLIW	- Very Long Instruction Word
VIC	- Virtual Instruction Configuration
VPN	- Virtual Private Network
VoIP	- Voice over Internet Protocol
WCDMA	- Wide-Band Code Division Multiple Access
WiFi	- Wireless Fidelity
WLAN	- Wireless Local Area Network
WiMAX	- Worldwide Interoperability for Microwave Access