

GLOSSARY

The following acronyms are in sufficiently common usage and need not be defined in the text. All others must be defined the first time used.

A/D, ADC	Analog-to-Digital Converter
AFC	Automatic Frequency Control
AGC	Automatic Gain Control
ALU	Arithmetic Logic Unit
AM	Amplitude Modulation
ASIC	Application-Specific Integrated Circuit
BER	Bit Error Rate
BiCMOS	Bipolar Complementary MOS
BJT	Bipolar Junction Transistor
BL	Bit Line
BPF	Bandpass Filter
CAD	Computer-Aided Design
CCD	Charge-coupled Device
CDMA	Code-Division Multiple Access
CDR	Clock and Data Recovery
CML	Current-Mode Logic
CMOS	Complementary MOS
CMRR	Common-Mode Rejection Ratio
CODEC	Coder-Decoder
CPU	Central Processing Unit
CSMA	Carrier Sense Multiple Access
D/A, DAC	Digital-to-Analog Converter
DLL	Delay-Locked Loop
DEMUX	Demultiplexer
DEMOS	Depletion MOS
DNA	Deoxyribonucleic Acid
DNL	Differential Non-Linearity
DRAM	Dynamic Random-Access Memory
DSP	Digital Signal Processing
DTL	Diode-Transistor Logic
DVD	Digital Video Disc
ECD	Error-Correcting Code
ECL	Emitter-Coupled Logic
ECP	Emitter-Coupled Pair
EEPROM	Electrically Erasable Programmable Read-Only Memory
EPROM	Erasable Programmable Read-Only Memory
ESD	Electrostatic Discharge
FCC	Federal Communications Commission (U.S.)
FDMA	Frequency-Division Multiple Access
FF	Flip Flop
FIFO	First In-First Out
FIR	Finite Impulse Response Filter
FM	Frequency Modulation
FPGA	Field-Programmable Gate Array
FSK	Frequency Shift Keying

GBW	Gain-Bandwidth Product
GCA	Gain-Controlled Amplifier
GFSK	Gaussian Frequency-Shift Keying
GOPS	Gega-Operations Per Second
HPF	High-Pass Filter
HVCMOS	High Voltage Complementary MOS
HVMOS	High Voltage MOS
IC	Integrated Circuit
IF	Intermediate Frequency
IIR	Infinite Impulse Response Filter
INL	Integral Non-Linearity
I/O	Input-Output
LAN	Local-Area Network
LNA	Low-Noise Amplifier
LO	Local Oscillator
LPF	Lowpass Filter
LSB	Least Significant Bit
MEMS	Micro-Electro-Mechanical System
MODEM	Modulator-Demodulator
MOS	Metal-Oxide-Semiconductor
MOST	MOS Transistor
MSB	Most Significant Bit
MUX	Multiplexer
NF	Noise Figure
NMOS	n-channel MOS transistor
NMOST	NMOS transistor
OTA	Operational Transconductance Amplifier
PAM	Pulse Amplitude Modulation
PAN	Personal Area Network
PCB	Printed Circuit Board
PHY	Physical Layer
PLL	Phase-Locked Loop
PMOS	p-channel MOS transistor
PMOST	PMOS transistor
PPM	Pulse-Position Modulation
PRBS	Pseudo-Random Binary Sequence
PRML	Partial Response, Maximum Likelihood
PROM	Programmable Read-Only Memory
PSRR	Power Supply Rejection Ratio
PTAT	Proportional to Absolute Temperature
PVT	Process, Voltage, Temperature
PWM	Pulse-Width Modulation
RAM	Random-Access Memory
RF	Radio Frequency
RISC	Reduced Instruction Set Computer
ROM	Read-Only Memory
RTL	Resistor-Transistor Logic
RX	Receiver

SC	Switched Capacitor
SDRAM	Synchronous Dynamic Random-Access Memory
S/H	Sample-and-Hold
SNDR	Signal-to-Noise and Distortion Ratio
SNR	Signal-to-Noise Ratio
SOC	System on a Chip
SOI	Semiconductor on Insulator
SRAM	Static Random-Access Memory
TFT	Thin-Film Transistor
THD	Total Harmonic Distortion
TTL	Transistor-Transistor Logic
TX	Transmitter
UHF	Ultra-High Frequency
UDTV	Ultra-High Definition Television
VCDL	Voltage-Controlled Delay Line
VCO	Voltage-Controlled Oscillator
VGA	Variable-Gain Amplifier
VLSI	Very Large-Scale Integration
VSWR	Voltage Standing-Wave Ratio
WAN	Wide-Area Network
WCDMA	Wireless Code-Division Multiple Access
WL	Word Line
WLAN	Wireless Local-Area Network

STYLE GUIDE

- I. Acronyms that do not appear in the glossary should be defined as follows:
A variable bandwidth amplifier (VBWA)...
- II. There should be no space or hyphen between the value and the unit, i.e., 1.83mW, 40Gb/s, 256MB, etc.
- III. References
 - A. Journal references should contain the author's initials, last name, the paper title in quotation marks, the journal title in italics, page numbers, vol. no., and date. Where there are more than three (3) coauthors, the first author is listed followed by et.al. Examples:
 1. G. Georgiou, "Clock and Data Recovery IC for 40Gb/s Fiber-Optic Receiver," *J. Solid State Circuits*, vol. 37, pp. 1120-1124, Sept. 2002.
 2. T. Shimizou, F. Arakawa, T. Kawahara, "Autonomous-Decentralized Low- Power System LSI using Self-Instructing Shutdown Method," *Dig. Symp. VLSI Circuits*, pp. 55-56, June 2001.
 3. A. Nozoe, et.al., "A 256Mb Multilevel Flash Memory with 1.8V Power Supply," *ISSCC Dig. Tech.Papers*, pp. 30-31, Feb. 2001.
 - B. Books should be cited as follows:
D.A. Hodges, H.G. Jackson and R.A. Saleh, Design and Analysis of Digital Integrated Circuits, 3rd Ed., McGraw-Hill Book Company, 2003.

PREFIXES AND UNIT ABBREVIATIONS

d	dec	k	kilo
c	centi	M	mega
m	milli	G	giga
μ	micro	T	tera
n	nano		
p	pico		
f	femto		
a	atto		

A	amperes	S	siemens
Å	angstroms	s	seconds
b	bits	v	volts
B	bytes	W	watts
C	coulombs	Ω	ohms
$^{\circ}\text{C}$	degrees Celsius		
F	farads		
ft	feet		
H	henrys		
Hz	hertz		
in.	inches		
J	joules		
K	Kelvin		
m	meters		
rad	radians		