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# Glossary of Terms and Symbols

## Terms and Acronyms

<b>ACI</b>	Adjacent Channel Interference
<b>ADC</b>	Analog to digital converter
<b>AM/AM</b>	Amplitude to Amplitude distortion
<b>AM/PM</b>	Amplitude to Phase distortion
<b>BER</b>	Bit Error Rate
<b>CALLUM</b>	Combined Analogue Locked Loop Universal Modulator
<b>CDF</b>	Cumulative Distribution Function
<b>CE</b>	Cyclic Extension
<b>CLFB</b>	Cartesian Loop Feedback
<b>CP</b>	Cyclic Prefix
<b>DAC</b>	Digital to analog converter
<b>DSP</b>	Digital Signal Processing (or processor)
<b>DFT</b>	Discrete Fourier Transform
<b>DG</b>	Delta functions Generator
<b>HPA</b>	High Power Amplifier
<b>EE&amp;R</b>	Envelope Elimination and Restoration
<b>FB</b>	Feedback
<b>FET</b>	Field Effect Transistor
<b>FF</b>	Feedforward
<b>FFT</b>	Fast Fourier Transform
<b>FT</b>	Fourier Transform
<b>GT</b>	Guard Time
<b>IBO</b>	Input Back-Off
<b>IDFT</b>	Inverse Discrete Fourier Transform
<b>IFFT</b>	Inverse Fast Fourier Transform
<b>IMD</b>	Intermodulation Distortion
<b>ISI</b>	Intersymbol Interference
<b>LTI</b>	Linear time invariant
<b>LINC</b>	Linear amplification with nonlinear components
<b>LUT</b>	Look-up Table
<b>M-QAM</b>	M-ary Quadrature Amplitude Modulation
<b>MSE</b>	Mean Squared Error

<b>NLMS</b>	Normalized Least Mean Square
<b>OBO</b>	Output Back-Off
<b>OFDM</b>	Orthogonal Frequency Division Multiplexing
<b>OS</b>	Order Statistics
<b>PD</b>	Pre/Post distorter, Pre/Post distortion
<b>PE</b>	Periodic Extension
<b>PAPR</b>	Peak to Average Power Ratio
<b>PDF</b>	Probability Density Function
<b>PS</b>	Parallel to Serial
<b>PSD</b>	Power Spectral Density
<b>SNR</b>	Signal to Noise Ratio
<b>SSPA</b>	Solid State Power Amplifier
<b>SR</b>	Spectral Regrowth
<b>SP</b>	Serial to Parallel
<b>TI-NLS</b>	Time invariant nonlinear system
<b>TDE</b>	Time Delay Estimation
<b>TWTA</b>	Travelling Wave Tube Amplifier
<b>VCO</b>	Voltage controlled oscillator
<b>VSM</b>	Volterra Series Model

## Symbols, operators and definitions

$()^*$	Complex conjugated
$()^T$	Transposed
$\otimes$	Circular convolution
$\mathbf{x}$	Vector
$\mathbf{X}$	Matrix
$\arg\{z\}$	Complex argument of $z$
$ z $	Complex modulus of $z$
$ \mathbf{z} $	Vector with the complex modulus of each element in $\mathbf{z}$
$\text{diag}\{\mathbf{z}\}$	Generates a diagonal matrix (elements from $\mathbf{z}$ form the main diagonal)
$\Pi\left(\frac{t}{T_p}\right)$	Unit rectangular pulse on the support $[-T_p/2, +T_p/2]$
$\tilde{U}_N\left(\frac{k}{N}\right)$	Samples of the periodic spectrum of the $N$ -length unitary discrete window $w_N[n]$ at $f_n = \frac{k}{N}$ . Coincide with the $N$ values of the DFT $U_N[k]$ .