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List of symbols and abbreviations

A	Ampere
Å	Angstrom
α	attenuation constant
β	phase constant
$\bar{B}$	magnetic flux
BW_c	bandwidth (calculated)
BW_m	bandwidth (measured)
c	velocity of light in free space
˚C	degree Celsius
CNT	carbon nanotube
$\bar{D}$	electric flux density
dB	decibel
E	energy density
$\bar{E}$	electric field vector
ε	permittivity
η	intrinsic impedance
ε_0	free space permittivity
ε_r	relative permittivity
ε_r'	real part of complex permittivity
ε_r''	imaginary part of complex permittivity
EG	expanded graphite
em	electromagnetic
EMC	electromagnetically compatible
EMI	electromagnetic interferences
EPDM	ethylene propylene diene monomer

List of symbols and abbreviations (contd.)

f	frequency of operation
f_r	resonant frequency
FTIR	Fourier-Transform Infrared Spectroscopy
γ	propagation Constant
GHz	Giga Hertz
$\bar{H}$	magnetic field vector
H_a	anisotropy field
$\bar{J}$	electric current density
K	effective anisotropy constant
kV	kilo volt
LLDPE	linear low density polyethylene
λ	wavelength
M_s	saturation magnetization
mm	millimeter
μm	micrometer
μ	permeability
μ_0	free space permeability
μ_r	relative permeability
μ_r'	real part of complex permeability
μ_r''	imaginary part of complex permeability
MHz	Mega Hertz
MPa	Mega Pascal
NPR	novolac phenolic resin
nm	nano meter
RL	reflection loss

List of symbols and abbreviations (contd.)

RL_c	reflection loss (calculated)
RL_m	reflection loss (measured)
RF	radio frequency
SEM	Scanning Electron Microscopy
σ_s	conductivity
t	thickness
θ	theta
$tan\,\delta_e$	dielectric loss tangent
$tan\,\delta_m$	magnetic loss tangent
TEM	Transmission Electron Microscope
TGA	Thermo Gravimetric Analysis
TL model	Transmission line model
ω	angular frequency
wt. %	weight percentage
XRD	X-ray Diffraction
Z_0	characteristic impedance
Z_{in}'	real part of input impedance
Z_{in}''	imaginary part of input impedance