Materials Abbreviations Legend

CONDUCTORS & BRAID MATERIALS

AL .....Aluminum
BC .....Bare Copper
BeCu .....Beryllium-Copper Alloy 172
BCCAI .....Bare Copper Clad Aluminum
CCS .....Bare Copper Clad Steel
GS .....Galvanized Steel
HR .....High Resistance Wire
MW .....Magnet Wire
NC .....Nickel Covered Copper
SA.....Silver Covered Alloy
SC.....Silver Covered Copper
SCBeCu.....Silver Covered Beryllium Copper
SCCadBr .....Silver Covered Cadmium Bronze
SCCAl .....Silver Covered Copper Clad Aluminum
SCCS.....Silver Covered Copper Clad Steel
SNCCS.....Silver Covered Nickel Covered Copper Clad Steel
SCS .....Silver Covered Copper Strip
TC .....Tinned Copper
TCCS.....Tinned Copper Clad Steel

DIELECTRIC MATERIALS

PE.....Solid Low Density Polyethylene
PTFE .....Solid Polytetrafluoroethylene
LDTFE .....Low Density PTFE
Foam PE .....Gas Injected Foam PE
FEP.....Solid Fluorinated Ethylene Propylene
CPT .....Conductive PTFE
CPE .....Conductive Polyethylene (Type A-5 per MIL-C-17)
Rubber.....per MIL-C-17 (obsolete)
MGO .....Magnesium Oxide (MgO)

INTERLAYER MATERIALS

PE.....Solid Polyethylene
PTFE .....Solid Polytetrafluoroethylene
MY .....Polyester
KP.....Polyimide
ALMY.....Aluminum-Polyester Laminate
ALKP .....Aluminum-Polyimide Laminate
CPC.....Copper-Polyester-Copper Laminate

JACKET MATERIALS

E-CTFE.....Ethylene Chlorotrifluoroethylene
Type XI per MIL-C-17
ETFE.....Ethylene Tetrafluoroethylene Copolymer
Type X per MIL-C-17
FEP.....Fluorinated Ethylene Propylene
Type IX per MIN-C-17
FG Braid.....Fiberglass; Impregnated
Type V per MIL-C-17
PE.....Clear Polyethylene
Type III per MIL-C-17
LS/LT .....Low Smoke/Low Toxicity
(XLPE)
PE.....Polyethylene, black HMW
Type IIIA per MIL-C-17
PFA.....Perfluoroalkoxy
Type XIII per MIL-C-17
PTFE .....Polytetrafluoroethylene
Type VIIA per MIL-C-17
PUR.....Polyurethane, black
Type XII per MIL-C-17
PVC-I .....Polyvinyl Chloride, black (contaminating)
Type 1 per MIL-C-17
PVC-II.....Polyvinyl Chloride, grey (non-contaminating)
Type II per MIL-C-17
PVC-IIA.....Polyvinyl Chloride, black (non-contaminating)
Type IIA per MIL-C-17
Rubber Per MIL-C-17 (obsolete)
SIL/DAC.....Dacron Braid over Silicone Rubber
Type VI per MIL-C-17
TPE .....Thermo Plastic Elastomer
XLPE.....Crosslinked Polyolefin
Type XIV per MIL-C-17

Coaxial Cable Equations Legend

Symbol	Definition	Units	Symbol	Definition	Units
α	= Attenuation in dB/100 feet	dB/100 feet	**Fco**	= Cutoff frequency	**GHz**
ε	= Dielectric constant		**C**	= Braid carriers	
Γ	= Reflection coefficient		**N**	= Braid ends per carrier	
ϕ	= Electrical length	degrees	**t**	= Flat strip thickness	**inches**
C	= capacitance	pF/foot	**w**	= Flat strip width	**inches**
L	= Inductance	uH/foot	**SRL**	= Return loss	**dB**
Zo	= Impedance	ohms	**VSWR**	= Voltage standing wave ratio	
Vp	= Velocity of propagation	%	**FWD**	= Forward power	**dB**
df	= Dissipation factor		**RFL**	= Reflected power	**dB**
Td	= Time delay	nS/foot	**MML**	= Mismatch loss	**dB**
F	= Frequency	MHz	**ME**	= Match efficiency	**%**
PTC	= Phase temperature coefficient	ppm/C	$\mathbf{k_s}$	= 1.0 for solid center conductor	
Δ**T**	= Change in temperature (t2 t0 t1)	C		= 0.939 for 7 strand center conductor	
LTH	= Length	feet		= 0.97 for 19 strand center conductor	
$\Delta\phi$	= Change in electrical length (t1 to t2)	degrees	**log**	= logarithm to base 10	
D	= dielectric diameter	inches	**ln**	= logarithm to base e	
d	= center conductor diameter	inches	$\mathbf{k_1}$	= resistive loss constant	
ds	= Braid wire size	inches	$\mathbf{k_2}$	= dielectric loss constant	
Fbd	= Braid factor				