

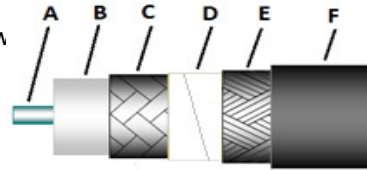
CABLE SPECIFICATIONS

Lab-Flex® 160



DATA SHEET PART SERIES: Lab-Flex® SHEET 1 OF 2

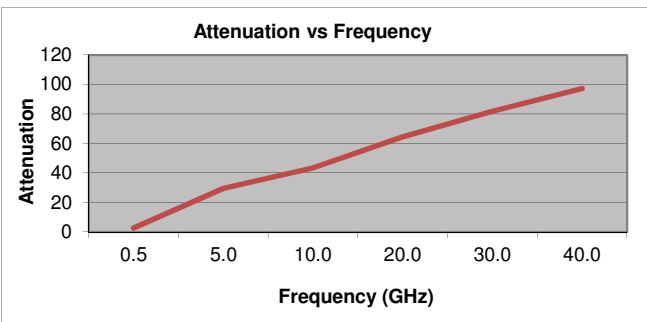
Lab-Flex® 160 cable offers a very cost effective means of provides low loss w meeting high frequency cable assembly requirements. A wide range of high frequency stainless steel connectors are available for use. The 78% velocity dielectric provides low loss without sacrificing dielectric strength.



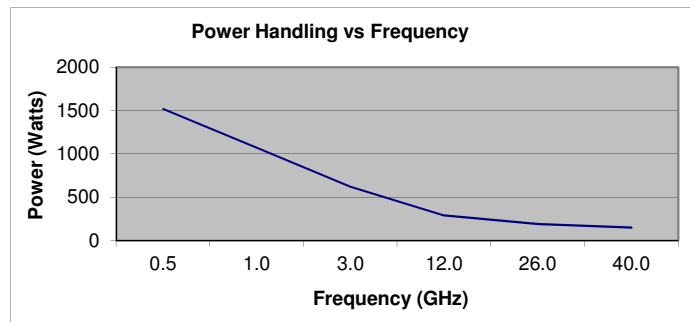
1.0 Electrical Data			
Frequency, Max (GHz)	40.0		
Impedance, nominal (Ω)	50		
Velocity of Propagation (%)	78		
Shielding Effectiveness, 18 GHz (dB/ft)	>-90dB		
Capacitance (pF/ft)	26		
Delay (ns/ft), (ns/meter)	1.3	4.268504	
Attenuation k1 (db/100ft) @ 23 deg C	0.38264		Attenuation (Typical) at any Frequency =k1 x SqRt (FMHz) + k2 x (FMHz)
Attenuation k2 (db/100ft) @ 23 deg C	0.00052		

2.0 Mechanical/Environmental Data			
Weight (lbs/100ft), (Kg/100m)	3.10	4.66	
Temperature Range (°C)	-65 to +200*		
Minimum Bend Radius (inch), (mm)	0.48	12.19	

3.0 Construction Data			
Inner Conductor (inch)	A	-	Solid SPC
Dielectric (inch)	B	-	Expanded PTFE
First Outer Shield (inch)	C	-	SPC Flat Braid
Second Outer Shield (inch)	D	-	Aluminum Polyimide Foil
Third Outer Shield (inch)	E	-	SPC Round Braid
Jacket (inch O.D.)	F	0.160	FEP



(dB per 100 feet)



*CW Power in watts at sea level and 23°C

Frequency GHz	1.0	12.0	18.0	26.0	32.0	40.0
Typical Loss dB/100ft	12.6	48.2	60.7	75.2	85.1	97.3

Frequency GHz	1.0	6.0	18.0	26.0	32.0	40.0
CW Power in Watts	650.0	180.0	140.0	120.0	110.0	100.0

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DATA SHEET PART SERIES: Lab-Flex® SHEET 2 OF 2

Standard Connectors:

Cable Code	Connector Code	Series	Gender	Type	C-Nut Style*	Body Material*	Body Finish*	Loss per GHz	Frequency Max GHz
160	SMS	SMA	(Male)	Straight	H	SS	P	0.01	18
160	SFS	SMA	(Female)	Straight	N/A	SS	P	0.015	18
160	SMR	SMA	(Male)	R/A	H	SS	P	0.02	18
160	MMS	2.4mm	(Male)	Straight	H	SS	P	0.01	40
160	MFS	2.4mm	(Female)	Straight	N/A	SS	P	0.015	40
160	KMS	2.9mm	(Male)	Straight	H	SS	P	0.01	40
160	KFS	2.9mm	(Female)	Straight	N/A	SS	P	0.015	40
160	KMR	2.9mm	(Male)	R/A	H	SS	P	0.02	40
160	KFBS	2.9mm	(Female) Bulkhead	Straight	N/A	SS	P	0.015	40

* C-nut Style: H= Hex, K=Knurled, HK= Hex Nut & Knurled

*Body Materials: B=Brass, SS=Stainless Steel, Be= Beryllium Copper

*Body Finish: N= Nickel, S=Silver, G=Gold, P= Passivated, T= Tri-metal

Sex of connector is determined by center pin

Standard Options:

Cable Code	Option Code	Option Description	Option Details
160	+/-2.8PS	Phase Match	Standard Tolerance of +/-2.8PS
160	RoHS	RoHS Compliant	Per EU Directive 2002/95/EC
160	W	Weatherized	Weatherized Jacket (With Pel-Seal)
160	D/DD	Dust Cap one side/Both Sides	
160	E/EE	Extended Booting One Side/ Both Sides	
160	MC	Monocoil option with silicone jacket	
160	AW	Armor and weatherized jacket	
160	A	Armor	

*for RoHS complaint assemblies (-ROHS) is required to be added to end of standard part number
ex. NMS-160-120.0-NMS-ROHS

*for phase matched assemblies (+/-2.8PS) is require to be added to the end of standard part number
ex. NMS-160-120.0-NMS+/-2.8PS

Custom Options:

The above connectors and options the most common types used. Florida RF Labs offers a wide range of cables, connectors and options. If you do not see an option you require please consult the sales department.