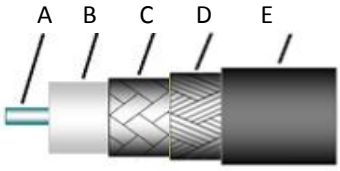
CABLE SPECIFICATIONS

Lab Flex® 100

DATA SHEET PART SERIES: Lab-Flex ®

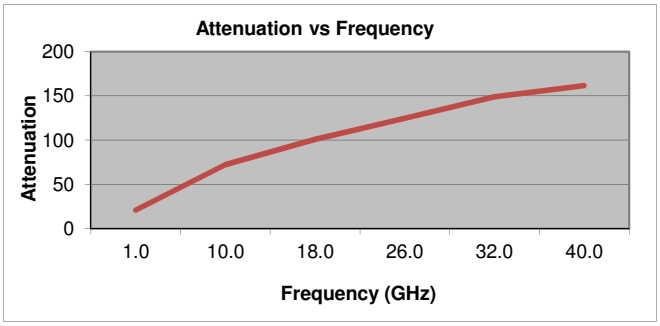
Lab Flex® 100 offers a 30% reduction in loss and the advantages of a flexible cable when compared against standard cables of the same diameter. With 2.9mm connectors, the Lab-Flex 100 provides a cost effective low loss flexible cable for frequencies to 40 GHz.



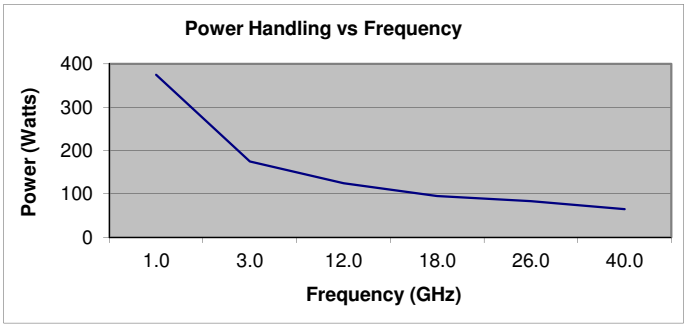
1.0 Electrical Data			
Frequency, Max (GHz)	40.0		
Impedance, nominal (Ω)	50		
Velocity of Propagation (%)	76		
Shielding Effectiveness, 18 GHz (dB/ft)	>-100dB		
Capacitance (pF/ft)	27		
Delay (ns/ft), (ns/meter)	1.34	4.399843	
Attenuation k1 (db/100ft) @ 23 deg C Attenuation k2 (db/100ft) @ 23 deg C	0.6353 0.00086		Attenuation (Typical) at any Frequency =k1 x SqRt (FMHz) + k2 x (FMHz)

2.0 Mechanical/Environmental Data			
Weight (lbs/100ft), (Kg/100m)	1.40	2.10	
Temperature Range (˚C)	-45 to +125*		
Minimum Bend Radius (inch), (mm)	0.50	12.70	

3.0 Construction Data			
Inner Conductor (inch)	A	-	Solid SCCS
Dielectric (inch)	B	-	Expanded PTFE
First Outer Shield (inch)	C	-	SPC Flat Spiral
Second Outer Shield (inch)	D	-	SPC Round Braid
Jacket (inch O.D.)	E	0.095	FEP



(dB per 100 feet)



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

Frequency GHz	3.0	12.0	18.0	26.0	32.0	40.0
Typical Loss dB/100ft	37.4	79.9	100.7	124.8	141.2	161.5

Frequency GHz	1.0	6.0	12.0	18.0	32.0	40.0
CW Power in Watts	375.0	160.0	110.0	95.0	71.0	65.0

CABLE SPECIFICATIONS

Lab Flex® 100

DATA SHEET PART SERIES: Lab-Flex ®

Standard Connectors:

Cable Code	*Connector Code*	*Series*	*Gender*	*Type*	*C-Nut Style**	*Body Material**	*Body Finish**	*Loss per GHz*	*Frequency Max GHz*
100	SMS	SMA	(Male) Plug	Straight	H	SS	P	0.01	18
100	KMS	2.9mm	(Male) Plug	Straight	H	SS	P	0.01	40
100	MMS	2.4mm	(Male) Plug	Straight	H	SS	P	0.01	40
100	VMS	1.85mm	(Male) Plug	Straight	H	SS	P	0.01	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*
100	+/-2.8PS	Phase Match	Standard Tolerance of +/-2.8PS
100	RoHS	RoHS Compliant	Per EU Directive 2002/95/EC
100	W	Weatherized	Cable covered with polyolefin jacket over outer jacket
100	D/DD	Dust Caps One Side/Both Sides	
100	E/EE	Extended Booting one side/ Both Sides	
100	MC	Monocoil w/ Silicone cover	

*for RoHS complaint assemblies (-ROHS) is required to be added to end of standard part number
ex. SMS-100-120.0-SMS-ROHS

*for phase matched assemblies (+/-2.8PS) is require to be added to the end of standard part number
ex. KMS-100-120.0-KMS+/-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.