

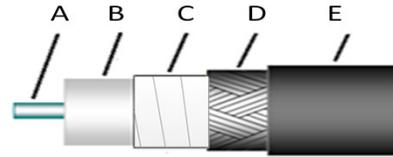
# CABLE SPECIFICATIONS

## Lab-Flex 105Q



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

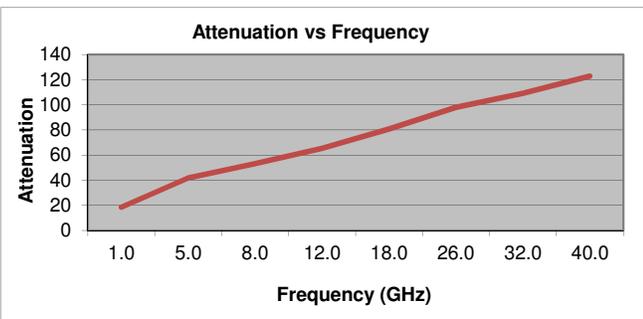
Lab-Flex 105Q is specially designed for Space applications, using materials which meet stringent NASA out-gassing requirements. With a tefzel jacket for maximum radiation resistance and a 70% velocity solid dielectric core, the Lab-Flex 105Q is ideal for high frequency space requirements.



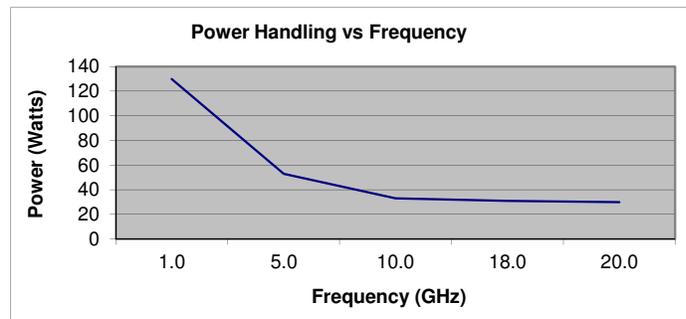
1.0 Electrical Data			
Frequency, Max (GHz)	40.0		
Impedance, nominal ( $\Omega$ )	50		
Velocity of Propagation (%)	70		
Shielding Effectiveness, 18 GHz (dB/ft)	>-110dB		
Capacitance (pF/ft)	30		
Delay (ns/ft), (ns/meter)	1.45	4.761024	
Attenuation k1 (db/100ft) @ 23 deg C	0.576		Attenuation (Typical) at any Frequency =k1 x SqRt (FMHz) + k2 x (FMHz)
Attenuation k2 (db/100ft) @ 23 deg C	0.00019		

2.0 Mechanical/Environmental Data			
Weight (lbs/100ft), (Kg/100m)	1.40	2.10	
Temperature Range ( $^{\circ}$ C)	-55 to +150		
Minimum Bend Radius (inch), (mm)	0.50	12.70	

3.0 Construction Data			
Inner Conductor (inch)	A	-	Solid SCCS
Dielectric (inch)	B	-	Solid PTFE
First Outer Shield (inch)	C	-	Silver Plated Copper Spiral
Second Outer Shield (inch)	D	-	Silver Plated Copper Round
Jacket (inch O.D.)	E	0.104	Tefzel 750, Black



(dB per 100 feet)



\*CW Power in watts at sea level and 23 $^{\circ}$ C

Frequency GHz	1.0	18.0	26.0	32.0	40.0
Typical Loss dB/100ft	18.4	80.7	97.8	109.1	122.8

Frequency GHz	1.0	5.0	10.0	18.0	20.0
CW Power in Watts	130.0	53.0	33.0	31.0	30.0

# CABLE SPECIFICATIONS

## Lab-Flex 105Q



DATA SHEET PART SERIES: Lab-Flex® Q 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
105Q	SMS	SMA	(Male)	Straight	H	SS	P	0.01	18
105Q	SFS	SMA	(Female)	Straight	N/A	SS	P	0.015	18
105Q	TMS	TNC	(Male)	Straight	H	SS	P	0.01	18
105Q	SMPFS	SMP	(Female)	Straight	N/A	B	G	0.02	40
105Q	KMS	2.9mm	(Male)	Straight	H	SS	P	0.01	40
105Q	KFS	2.9mm	(Female)	Straight	N/A	SS	P	0.015	40
105Q	NMS	Type-N	(Male)	Straight	H	SS	P	0.011	18
105Q	NFS	Type-N	(Female)	Straight	N/A	SS	P	0.015	18

\* 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
105Q	+/-2.8PS	Phase Match	Standard Tolerance of +/-2.8PS

\*for phase matched assemblies (+/-2.8PS) is require to be added to the end of standard part number  
 ex. NMS-105Q-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.