

# CABLE SPECIFICATIONS

## Lab-Flex® 190Q

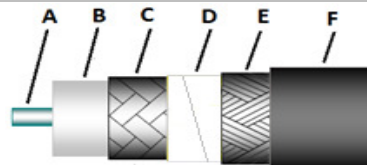


DATA SHEET PART SERIES: Lab-Flex® Q

SHEET 1 OF 2

Revision  
0816

Lab-Flex® 190Q is designed to meet stringent NASA/ESA outgassing specification and maximum radiation resistance while utilizing the design techniques to provide the low-loss and high velocity cable our customers expect from a Lab-Flex cable assembly.



### 1.0 Electrical Data

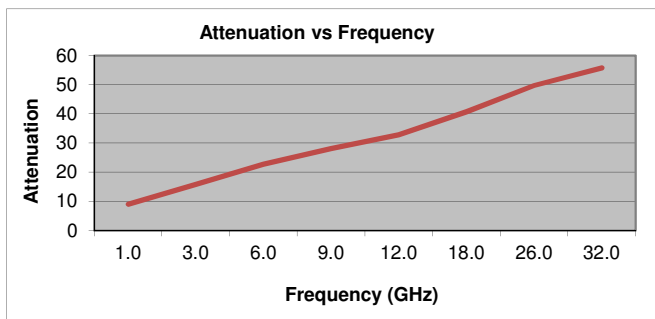
Frequency, Max (GHz)	32.0		
Impedance, nominal (Ω)	50		
Velocity of Propagation (%)	80		
Shielding Effectiveness, 18 GHz (dB/ft)	>-90dB		
Capacitance (pF/ft)	25		
Delay (ns/ft), (ns/meter)	1.27	4.17	
Attenuation k1 (db/100ft) @ 23 deg C	0.28		Attenuation (Typical) at any Frequency =k1 x SqRt (FMHz) + k2 x (FMHz)
Attenuation k2 (db/100ft) @ 23 deg C	0.000179		

### 2.0 Mechanical/Environmental Data

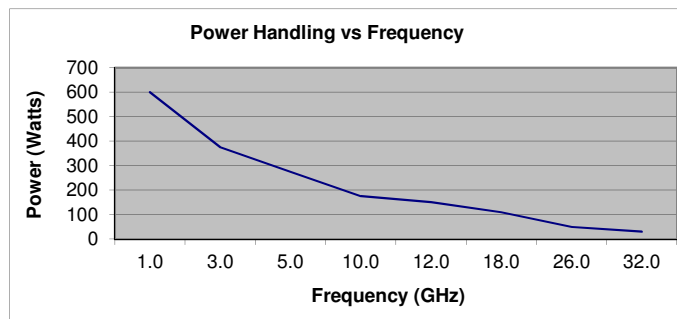
Weight (lbs/100ft), (Kg/100m)	3.30	4.96	
Temperature Range (°C)	-55C to +150C		
Minimum Bend Radius (inch), (mm)	0.95	24.13	

### 3.0 Construction Data

Inner Conductor (inch)	A	-	Solid SC
Dielectric (inch)	B	-	Tape Wrap PTFE
First Outer Shield (inch)	C	-	Flat Braid SPC
Second Outer Shield (inch)	D	-	Aluminum Tape
Third Outer Shield (inch)	E	-	Round Braid SC
Jacket (inch O.D.)	F	0.190	ETFE



(dB per 100 feet)



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

Frequency GHz	2.5	5.8	12.0	18.0	26.0	32.0
Typical Loss dB/100ft	14.5	22.4	32.8	40.8	49.8	55.8

Frequency GHz	3.0	5.0	12.0	18.0	26.0	32.0
CW Power in Watts	375.0	275.0	150.0	110.0	50.0	30.0

# CABLE SPECIFICATIONS

## Lab-Flex® 190Q



DATA SHEET PART SERIES: Lab-Flex® Q

SHEET 2 OF 2

Revision  
0816

### Standard Connectors:

Cable Code	Connector Code	Series	Gender	Type	C-Nut Style*	Body Material*	Body Finish*	Loss per GHz	Frequency Max GHz
190Q	SMS	SMA	(Male)	Straight	H	SS	P	0.01	18
190Q	SMR	SMA	(Male)	R/A	H	SS	P	0.02	18
190Q	KMS	2.9mm	(Male)	Straight	H	SS	P	0.01	32
190Q	KMR	2.9mm	(Male)	R/A	H	SS	P	0.02	32
190Q	TMS	TNC	(Male)	Straight	H	SS	P	0.01	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
190Q	+/-2.8PS	Phase Match	Standard Tolerance of +/-2.8PS
190Q	RoHS	RoHS Compliant	Per EU Directive 2002/95/EC

\*for RoHS complaint assemblies (-ROHS) is required to be added to end of standard part number  
ex. TMS-190Q-120.0-TMS-ROHS

\*for phase matched assemblies (+/-2.8PS) is require to be added to the end of standard part number  
ex. TMS-190Q-120.0-TMS+/-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.