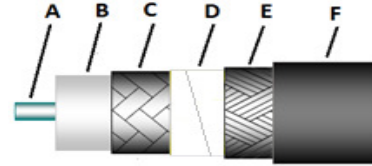


# CABLE SPECIFICATIONS

## Lab-Flex® 235SP



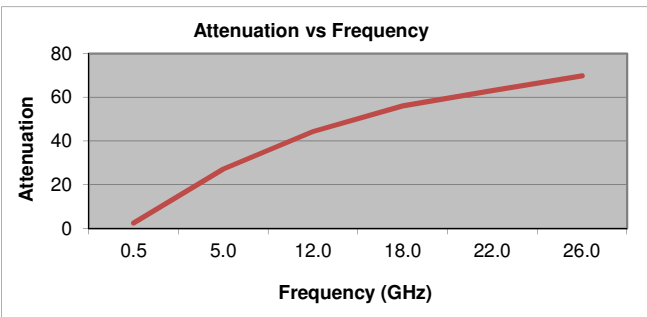
Lab-Flex® 235SP is ideal for high flexure applications requiring low loss cable and flexibility. With a 78% velocity expanded PTFE dielectric, Lab-flex 235SP cable has 30% lower loss than solid dielectrics of the same size.



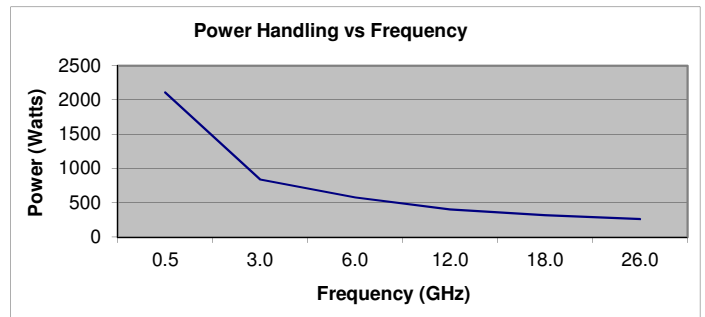
1.0 Electrical Data			
Frequency, Max (GHz)	26.5		
Impedance, nominal (Ω)	50		
Velocity of Propagation (%)	78		
Shielding Effectiveness, 18 GHz (dB/ft)	>-90dB		
Capacitance (pF/ft)	27		
Delay (ns/ft), (ns/meter)	1.3	4.268504	
Attenuation k1 (db/100ft) @ 23 deg C	0.34722		Attenuation (Typical) at any Frequency =k1 x SqRt (FMHz) + k2 x (FMHz)
Attenuation k2 (db/100ft) @ 23 deg C	0.00053		

2.0 Mechanical/Environmental Data			
Weight (lbs/100ft), (Kg/100m)	5.10	7.67	
Temperature Range (°C)	-65 to +85		
Minimum Bend Radius (inch), (mm)	1.20	30.48	

3.0 Construction Data			
Inner Conductor (inch)	A	-	Stranded SPC
Dielectric (inch)	B	-	Expanded PTFE
First Outer Shield (inch)	C	-	SPC Flat Spiral
Second Outer Shield (inch)	D	-	Metalized Film Tape layer
Third Outer Shield (inch)	E	-	SPC Round Braid
Jacket (inch O.D.)	F	0.235	Extruded PUR



(dB per 100 feet)



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

Frequency GHz	1.0	6.0	12.0	18.0	20.0	26.0
Typical Loss dB/100ft	11.5	30.1	44.4	56.1	59.7	69.8

Frequency GHz	1.0	3.0	6.0	12.0	18.0	26.0
CW Power in Watts	1240.0	840.0	580.0	400.0	320.0	260.0

# CABLE SPECIFICATIONS

## Lab-Flex® 235SP



DATA SHEET PART SERIES: Lab-Flex® S

SHEET 2 OF 2

Revision  
0916

### Standard Connectors:

Cable Code	Connector Code	Series	Gender	Type	C-Nut Style*	Body Material*	Body Finish*	Loss per GHz	Frequency Max GHz
235SP	SMS	SMA	(Male)	Straight	H	SS	P	0.01	18
235SP	SFS	SMA	(Female)	Straight	N/A	SS	P	0.015	18
235SP	SMR	SMA	(Male)	R/A	H	SS	P	0.02	18
235SP	SMR90	SMA	(Male)	Swept R/A	H	SS	P	0.012	18
235SP	SFBS	SMA	(Female) Bulkhead	Straight	N/A	SS	P	0.015	18
235SP	NMS	Type-N	(Male)	Straight	HK	SS	P	0.011	18
235SP	NMR	Type-N	(Male)	R/A	HK	SS	P	0.02	18
235SP	NFBS	Type-N	(Female) Bulkhead	Straight	N/A	SS	P	0.015	18
235SP	TMS	TNC	(Male)	Straight	HK	SS	P	0.01	18
235SP	KMS	2.9mm	(Male)	Straight	H	SS	P	0.01	26.5
235SP	BMS	BNC	(Male)	Straight	B	SS	P	0.015	4

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

\*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
235SP	+/-2.8PS	Phase Match	Standard Tolerance of +/-2.8PS
235SP	RoHS	RoHS Compliant	Per EU Directive 2002/95/EC
235SP	D/DD	Dust Cap one side/Both Sides	
235SP	E/EE	Extended Booting One Side/ Both Sides	
235SP	A	Armor	
235SP	AW	Armor with Weatherized Jacket	
235SP	MP	Monocoil with Polyolefin Jacket	

\*for RoHS complaint assemblies (-ROHS) is required to be added to end of standard part number  
ex. NMS-235SP-120.0-NMS-ROHS

\*for phase matched assemblies (+/-2.8PS) is require to be added to the end of standard part number  
ex. NMS-235SP-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.