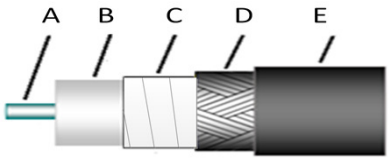
CABLE SPECIFICATIONS

Lab-Flex® 290

DATA SHEET PART SERIES: Lab-Flex® SHEET 1 OF 2 Revision 0916

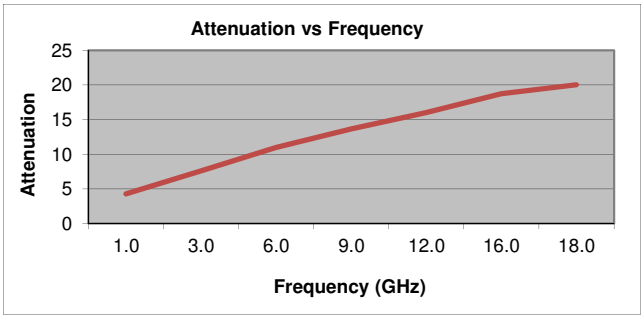
Lab-flex® 290 offers the lowest loss flexible cable up to 18GHz. This cable is ideal for applications where low loss or high power is a concern. Most Connectors are stainless steel with mode free operation to 18GHz.



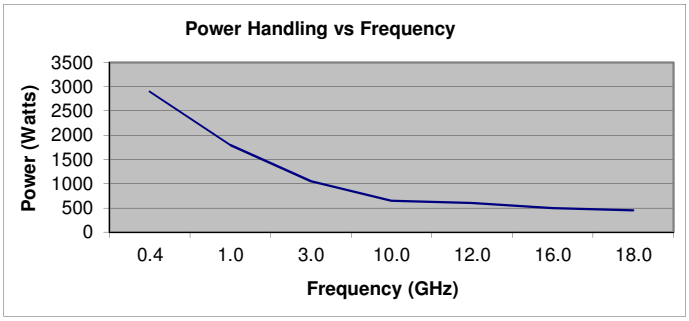
1.0 Electrical Data			
Frequency, Max (GHz)	18.0		
Impedance, nominal (Ω)	50		
Velocity of Propagation (%)	85		
Shielding Effectiveness, 18 GHz (dB/ft)	>-100dB		
Capacitance (pF/ft)	24		
Delay (ns/ft), (ns/meter)	1.25	4.104331	
Attenuation k1 (db/100ft) @ 23 deg C Attenuation k2 (db/100ft) @ 23 deg C	0.1314 0.000134		Attenuation (Typical) at any Frequency =k1 x SqRt (FMHz) + k2 x (FMHz)

2.0 Mechanical/Environmental Data			
Weight (lbs/100ft), (Kg/100m)	9.00	13.53	
Temperature Range (˚C)	-55 to +200		
Minimum Bend Radius (inch), (mm)	1.60	40.64	

3.0 Construction Data			
Inner Conductor (inch)	A	-	Solid SPC
Dielectric (inch)	B	-	Expanded PTFE
First Outer Shield (inch)	C	-	SPC Spiral Wrap
Second Outer Shield (inch)	D	-	SPC Round Braid
Jacket (inch O.D.)	E	0.301	FEP



(dB per 100 feet)



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

Frequency GHz	1.0	3.0	10.0	12.0	16.0	18.0
Typical Loss dB/100ft	4.3	7.6	14.5	16.0	18.8	20.0

Frequency GHz	1.0	3.0	10.0	12.0	16.0	18.0
CW Power in Watts	1800.0	1050.0	650.0	600.0	500.0	450.0

CABLE SPECIFICATIONS

Lab-Flex® 290

Standard Connectors:

Cable Code	*Connector Code*	*Series*	*Gender*	*Type*	*C-Nut Style**	*Body Material**	*Body Finish**	*Loss per GHz*	*Frequency Max GHz*
290	SMS	SMA	(Male)	Straight	H	SS	P	0.012	18
290	SMR	SMA	(Male)	Right Angle	H	SS	P	0.023	18
290	SFBS	SMA	(Female) Bulkhead	Straight	N/A	SS	P	0.015	18
290	SFS	SMA	(Female)	Straight	N/A	SS	P	0.015	18
290	NMS	Type-N	(Male)	Straight	HK	SS	P	0.011	18
290	NMR	Type-N	(Male)	Right Angle	H	SS	P	0.02	18
290	NFBS	Type-N	(Female) Bulkhead	Straight	N/A	SS	P	0.015	18
290	NFS	Type-N	(Female)	Straight	N/A	SS	P	0.015	18
290	TMS	TNC	(Male)	Straight	H	SS	P	0.01	18
290	TFBS	TNC	(Female) Bulkhead	Straight	N/A	SS	P	0.015	18
290	TFS	TNC	(Female)	Straight	N/A	SS	P	0.015	18
290	7/16MS	7/16	(Male)	Straight	H	B	WB	0.01	6
290	SCMS	SC	(Male)	Straight	H	SS	P	0.01	10
290	SCMR	SC	(Male)	Right Angle	H	SS	P	0.02	10
290	SCFBS	SC	(Female) Bulkhead	Straight	N/A	SS	P	0.015	10

* 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, WB= White Bronze
Sex of connector is determined by center pin

Standard Options:

Cable Code	*Option Code*	*Option Description*	*Option Details*
290	+/-2.8PS	Phase Match	Standard Tolerance of +/-2.8PS
290	RoHS	RoHS Compliant	Per EU Directive 2002/95/EC
290	A	Armor	SS interlock armor
290	W	Weatherized	Weatherized Jacket (With Pel-Seal)
290	AW	Armor/Weatherized	SS interlock armor with extruded PVC cover
290	D/DD	Dust Cap one side/Both Sides	
290	E/EE	Extended Booting One Side/ Both Sides	

*for RoHS complaint assemblies (-ROHS) is required to be added to end of standard part number
ex. NMS-290-120.0-NMS-ROHS

*for phase matched assemblies (+/-2.8PS) is require to be added to the end of standard part number
ex. NMS-290-120.0-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.