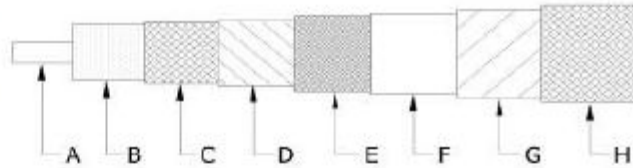


Lab-Flex 310AF Cable Specifications

DOCUMENT No: **CABLE-310AF**
014-01-055

SHEET 1 OF 2
 REV -

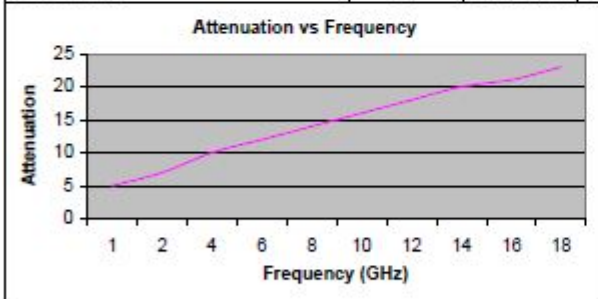
Lab-Flex 310AF is designed for severe environment aircraft applications. It utilizes a low loss dielectric and incorporates a redundant moisture/vapor barrier to prevent moisture ingress into the cable, along with hermetically sealed, high performance connectors.



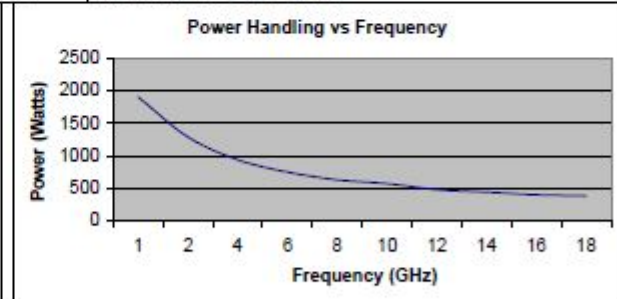
Electrical Data			
Frequency, Max (GHz)	18.0		
Impedance, nominal (Ω)	50		
Velocity of Propagation (%)	80%		
Shielding Effectiveness, 18 GHz (dB/ft)	>90		
Capacitance (pF/ft)	25.3		
Delay (ns/ft), (ns/meter)	1.267	4.16015	
Attenuation k1 (db/100ft) @ 23 deg C	0.13256		Attenuation (typical) at any Frequency $=k1 \times \text{SqRt}(\text{FMHz}) + k2 \times (\text{FMHz})$
Attenuation k2 (db/100ft) @ 23 deg C	0.000126		

Mechanical Data			
Weight (lbs/100ft), (Kg/100m)	8.70	13.08	
Temperature Range ($^{\circ}\text{C}$)	-65 to 200		
Minimum Bend Radius (inch), (mm)	1.50	38.10	

Construction Data				
Inner Conductor (inch)	A	Solid	0.084	Silver Plated Copper
Dielectric (inch)	B	ePTFE	-	Taped Micro-Porous PTFE
First Outer Shield (inch)	C	Flat SPC	-	Flat Silver Plated Copper Braid
Second Outer Shield (inch)	D	Aluminum	-	Metalized Film Tape Interlayer
Third Outer Shield (inch)	E	SPC	-	Round Silver Plated Braid
Jacket (inch O.D.)	F	Tape	-	Moisture/Vapor Barrier
Jacket (inch O.D.)	G	FEP	-	Extruded FEP
Outer Braid	H	FL-Braid	0.310	Abrasion Resistant Braid



(dB per 100 feet)



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

QUICK SPEC

Max Frequency	Loss @ 5 GHz	Cable Diameter	Shielding Effect.
18 GHz	11 dB	0.310"	>90

Lab-Flex 310AF Cable Specifications

DOCUMENT No: **CABLE-310**
014-01-055

SHEET 2 OF 2
 REV -

Standard Connectors:

Cable Code	Connector Code	Series	Gender	Type	C-Nut Style*	Body Material*	Body Finish*	Loss per GHz	Frequency Max GHz
310AF	SCMS	SC	(Male) plug	Straight	SS	SS	P	0.01	8
310AF	SCFS	SC	(Female) jack	Straight	SS	SS	P	0.01	8
310AF	SCFBS	SC	(Female) bulkhead	Straight	SS	SS	P	0.01	8
310AF	SCMRS	SC	(Male) plug	R/A	SS	SS	P	0.02	8
310AF	NMS	Type N	(Male) plug	Straight	SS	SS	P	0.01	18
310AF	NFS	Type N	(Female) jack	Straight	SS	SS	P	0.01	18
310AF	NFBS	Type N	(Female) bulkhead	Straight	SS	SS	P	0.01	18
310AF	NMR	Type N	(Male) plug	R/A	SS	SS	P	0.02	18
310AF	TMS	TNC	(Male) plug	Straight	SS	SS	P	0.01	18
310AF	TFS	TNC	(Female) jack	Straight	SS	SS	P	0.015	18
310AF	TFBS	TNC	(Female) bulkhead	Straight	SS	SS	P	0.015	18
310AF	TMR	TNC	(Male) plug	R/A	SS	SS	P	0.02	18

Note: All AF series connectors are sealed and tested to 1 x10-5 per MIL-STD-202F, paragraph 5

Standard Options:

Cable Code	Option Code	Option Description	Option Details
310AF	E	Extended Boots	
310AF	+/-2.8 PS	Phase Matching (+/- 2.8 picoseconds)	
310AF	D	Dust Caps	

Cable Assemblies - RoHS compliant with Exemption, 7b per European Parliament Directive 2002/95/EC

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 what you need please consult the factory.

QUICK SPEC

Max Frequency	Loss @ 5 GHz	Cable Diameter	Shielding Effect.
18 GHz	11 dB	0.310"	>90