

# CABLE SPECIFICATIONS

## LAB-FLEX® 210AF

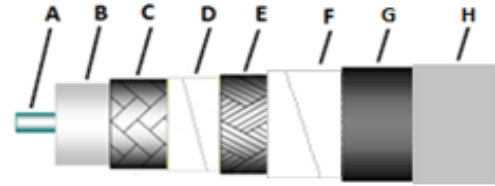


DATA SHEET PART SERIES: 210AF

SHEET 1 OF 2  
Dwg: 1014255

EN 14-2479  
Revision -

Lab-Flex® 210AF 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.



### 1.0 Electrical Data

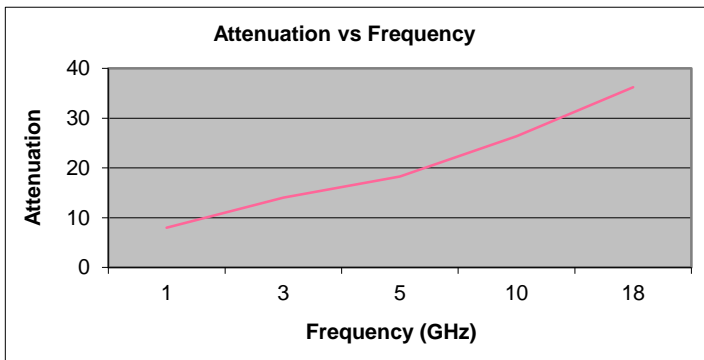
Frequency, Max (GHz)	18.0		
Impedance, nominal ( $\Omega$ )	50		
Velocity of Propagation (%)	80%		
Shielding Effectiveness (dB/ft)	>90		
Capacitance (pF/ft)	25		
Delay (ns/ft), (ns/meter)	1.3	4.3	
Passive Intermodulation (dBc)			
Attenuation k1 (db/100ft) @ 23 deg C	0.246		Attenuation (typical) at any Frequency =k1 x SqRt (FMHz) + k2 x (FMHz)
Attenuation k2 (db/100ft) @ 23 deg C	0.0001785		

### 2.0 Mechanical/Environmental Data

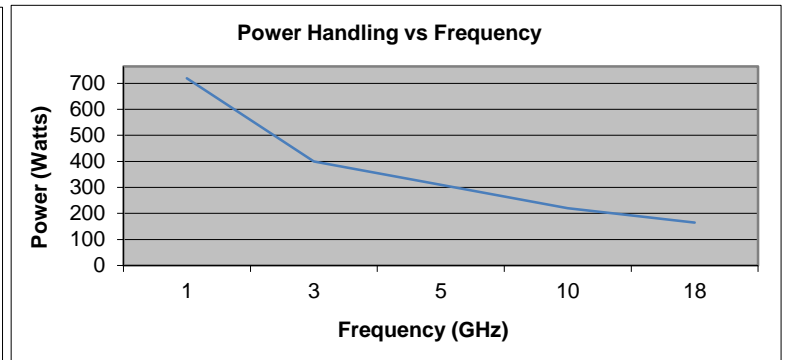
Weight (lbs/100ft), (Kg/100m)	4.80	7.22	
Temperature Range ( $^{\circ}$ C)	-55 / +200		
Minimum Bend Radius (inch), (mm)	1.00	25.40	

### 3.0 Construction Data

Inner Conductor (inch)	A	Solid	0.051	Silver Plated Copper
Dielectric (inch)	B			Expanded PTFE
First Outer Shield (inch)	C			Flat Silver Plated Copper Braid
Second Outer Shield (inch)	D			Metalized Film Tape Interlayer
Third Outer Shield (inch)	E			Round Silver Plated Braid
Jacket (inch O.D.)	F			Extruded FEP
Vapor Barrier	G			Polyimid Adhesive lined Tape, 3 mils
Outer Braid	H		0.23	Abrasion Resistant Braid, Color Black,



(dB per 100 feet)



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

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### Standard Connectors:

Cable Code	Connector Code	Series	Gender	Type	C-Nut Style*	Body Material*	Body Finish*	Loss per GHz	Frequency Max GHz
210AF	KMS	2.9 mm	(Male) plug	Straight	SS	SS	P	0.01	26.5
210AF	SMS	SMA	(Male) plug	Straight	SS	SS	P	0.01	18
210AF	SFS	SMA	(Female) jack	Straight	SS	SS	P	0.01	18
210AF	SFBS	SMA	(Female) bulkhead	Straight	SS	SS	P	0.01	18
210AF	SMR	SMA	(Male) plug	R/A	SS	SS	P	0.02	18
210AF	NMS	Type N	(Male) plug	Straight	SS	SS	P	0.01	18
210AF	NFS	Type N	(Female) jack	Straight	SS	SS	P	0.01	18
210AF	NFBS	Type N	(Female) bulkhead	Straight	SS	SS	P	0.01	18
210AF	NMR	Type N	(Male) plug	R/A	SS	SS	P	0.02	18
210AF	TMS	TNC	(Male) plug	Straight	SS	SS	P	0.01	18
210AF	TFS	TNC	(Female) jack	Straight	SS	SS	P	0.015	18
210AF	TFBS	TNC	(Female) bulkhead	Straight	SS	SS	P	0.015	18
210AF	TMR	TNC	(Male) plug	R/A	SS	SS	P	0.02	18

Note: All AF series connectors are sealed and tested to  $1 \times 10^{-5}$  per MIL-STD-202F, paragraph 5

### Standard Options:

Cable Code	Option Code	Option Description	Option Details
210AF	E	Extended boots	
210AF	+/-2.8 PS	Phase Matching (+/-2.8 picoseconds)	
210AF	D	Dust Caps	

Note: For RoHS complaint assemblies (-RoHS) is required to be added to end of standard part number  
ex. NMS-290-120.0-NMS-RoHS

### 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 our Sales Department.