

CABLE SPECIFICATIONS

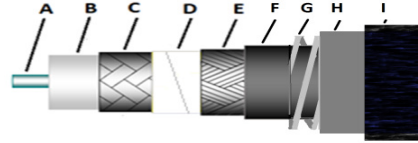
ASR-F



DATA SHEET PART SERIES: ASR

SHEET 1 OF 2

The ASR-F VNA test assemblies offer a flexible alternative to the original high performance ASR design. These cables are designed with durability and repeatability in mind for long lasting, consistent test results. The NMD connectors allow for direct mating to the test port when a more permanent test set-up is desired.



1.0 Electrical Data

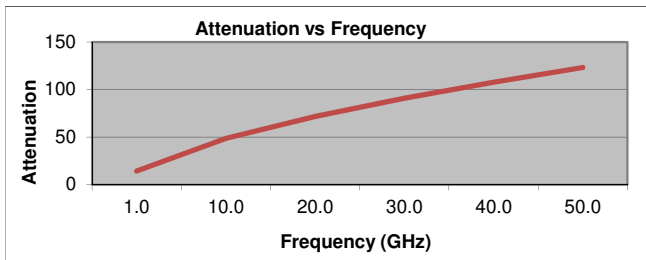
Frequency, Max (GHz)	50.0		
Impedance, nominal (Ω)	50		
Velocity of Propagation (%)	74		
Shielding Effectiveness, 18 GHz (dB/ft)	>-90dB		
Capacitance (pF/ft)	26.7		
Delay (ns/ft), (ns/meter)	1.33	4.367008	
Attenuation k1 (db/100ft) @ 23 deg C	0.434		Attenuation (Typical) at any Frequency =k1 x SqRt (FMHz) + k2 x (FMHz)
Attenuation k2 (db/100ft) @ 23 deg C	0.000531		

2.0 Mechanical/Environmental Data

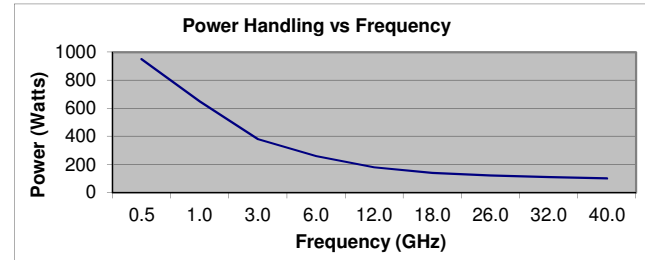
Temperature Range ($^{\circ}$ C)	-55 to +100 C	
Minimum Bend Radius (inch), (mm)	1.50	38.10

3.0 Construction Data

Inner Conductor (inch)	A	-	Solid SPC
Dielectric (inch)	B	-	Expanded PTFE
First Outer Shield (inch)	C	-	SPC Flat Braid
Second Outer Shield (inch)	D	-	Aluminum Polyimide Foil
Third Outer Shield (inch)	E	-	SPC Round Braid
Jacket (inch)	F	-	FEP, Mauve Color
Outer Layer 1 (inch)	G	-	Monocoil Armor
Outer Layer 2 (inch)	H	-	Extruded Silicone
Outer Layer 3 (inch)	I	(0.34)	Abrasion Resistant Braid



(dB per 100 feet)



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

Frequency GHz	1.0	18.0	26.0	32.0	40.0	50.0
Typical Loss dB/100ft	14.2	67.7	83.7	94.5	107.9	130.8

Frequency GHz	1.0	12.0	18.0	26.0	40.0	50.0
CW Power in Watts	650.0	180.0	140.0	120.0	100.0	80.0

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SHEET 2 OF 2

Standard Connectors:

Cable Code	Connector Code	Series	Gender	Type	C-Nut Style*	Body Material*	Body Finish*	Loss per GHz	Frequency Max GHz
ASR-F	MMS	2.4mm	(Male)	Straight	HK	SS	P	0.01	50
ASR-F	MFS	2.4mm	(Female)	Straight	N/A	SS	P	0.015	50
ASR-F	NMD-MFS*	2.4mm	(Female)	Straight	HK	SS	P	0.015	50
ASR-F	KMS	2.9mm	(Male)	Straight	HK	SS	P	0.01	40
ASR-F	KFS	2.9mm	(Female)	Straight	N/A	SS	P	0.015	40
ASR-F	NMD-KFS*	2.9mm	(Female)	Straight	HK	SS	P	0.015	40
ASR-F	S3KMS	3.5mm	(Male)	Straight	HK	SS	P	0.01	35
ASR-F	S3KFS	3.5mm	(Female)	Straight	N/A	SS	P	0.015	35
ASR-F	NMD-S3KFS*	3.5mm	(Female)	Straight	HK	SS	P	0.015	35
ASR-F	SMS	SMA	(Male)	Straight	HK	SS	P	0.01	18
ASR-F	NMS	Type-N	(Male)	Straight	HK	SS	P	0.011	18
ASR-F	NFS	Type-N	(Female)	Straight	N/A	SS	P	0.015	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

*NMD is a test-port connector used on some network analyzers. The NMD connector includes a large threaded body that is designed to stabilize the test port during the testing process. NMD is an acronym for "Network Measurements Division."



NMD connector shown above for reference. (female center contact)

Standard Options:

Cable Code	Option Code	Option Description	Option Details
ASR-F	+/-2.8PS	Phase Match	Standard Tolerance of +/-2.8PS

*for phase matched assemblies (+/-2.8PS) is require to be added to the end of standard part number
ex. NMD-KFS-ASR-F-36.0-KMS +/-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.