

# CABLE SPECIFICATIONS

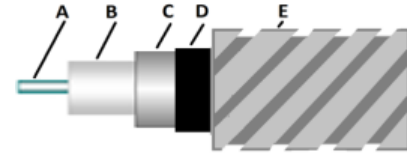
## ASR



DATA SHEET PART SERIES: ASR

SHEET 1 OF 2

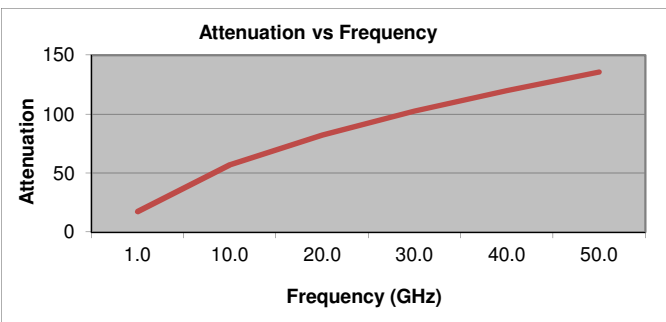
The ASR series of VNA test cables offers a high performance assembly for precision test applications. It provides a test setup which will maintain its configuration for a very repeatable test platform. The NMD connectors allow direct mating to the test port when a permanent test setup is desired.



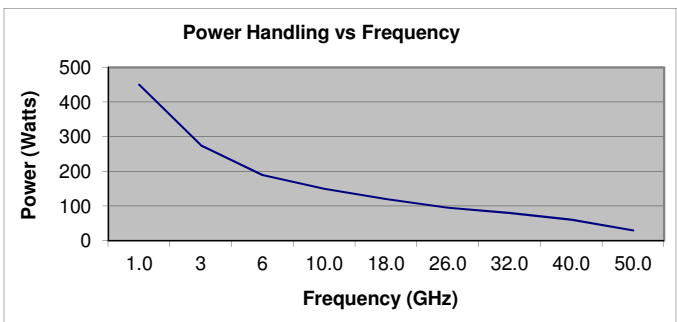
1.0 Electrical Data			
Frequency, Max (GHz)	50.0		
Impedance, nominal ( $\Omega$ )	50		
Velocity of Propagation (%)	76.5		
Shielding Effectiveness, 18 GHz (dB/ft)	>-100dB		
Capacitance (pF/ft)	27		
Delay (ns/ft), (ns/meter)	1.33	4.367008	
Attenuation k1 (db/100ft) @ 23 deg C	0.54		Attenuation (Typical) at any Frequency =k1 x SqRt (FMHz) + k2 x (FMHz)
Attenuation k2 (db/100ft) @ 23 deg C	0.0003		

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

3.0 Construction Data			
Inner Conductor (inch)	A	-	Solid SPC
Dielectric (inch)	B	-	Low Density PTFE
First Outer Shield (inch)	C	-	Tin Plated Copper
Second Outer Shield (inch)	D	-	Polyolefin Protective Layer
Third Outer Shield (inch O.D.)	E	(.29)	Stainless Steel Armor



(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	17.4	77.9	94.9	106.2	120.0	135.8

Frequency GHz	1.0	10.0	18.0	26.0	40.0	50.0
CW Power in Watts	450.0	165.0	130.0	95.0	60.0	30.0

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## ASR



**Standard Connectors:**

Cable	Connector	Series	Gender	Type	C-Nut	Body	Body	Loss	Frequency
Code	Code				Style*	Material*	Finish*	per GHz	Max GHz
ASR	MMS	2.4mm	(Male)	Straight	HK	SS	P	0.01	50
ASR	MFS	2.4mm	(Female)	Straight	N/A	SS	P	0.015	50
ASR	NMD-MFS*	2.4mm	(Female)	Straight	HK	SS	P	0.015	50
ASR	KMS	2.9mm	(Male)	Straight	HK	SS	P	0.01	40
ASR	KFS	2.9mm	(Female)	Straight	N/A	SS	P	0.015	40
ASR	NMD-KFS*	2.9mm	(Female)	Straight	HK	SS	P	0.015	40
ASR	S3KMS	3.5mm	(Male)	Straight	HK	SS	P	0.01	35
ASR	S3KFS	3.5mm	(Female)	Straight	N/A	SS	P	0.015	35
ASR	NMD-S3KFS*	3.5mm	(Female)	Straight	HK	SS	P	0.015	35
ASR	NMS	Type-N	(Male)	Straight	HK	SS	P	0.011	18
ASR	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	+/-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-24.0-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.