VNA
TEST PORT EXTENSION

MEGAPHASE VNA TEST PORT EXTENSION CABLES

High Performance VN Series Cable Assemblies

MegaPhase VN Series VNA cable assemblies deliver mechanically stable, low-loss performance for repeatable, high-accuracy RF test and calibration environments.

- Minimal change in insertion loss, phase, and VSWR during flexure, thereby providing repeatable measurements over time
- Internally armored with reinforced ends, this cable provides a long service life in rigorous test setups
- Available in custom lengths (up to 25 ft), phase-matched options, and multiple connector types including ruggedized NMD

Electrical data

Maximum Frequency	Impedance	Propagation Velocity	Time Delay	Dielectric Withstanding Voltage
67 GHz	50 Ω nominal	VN32* 69% nominal VN67** 80% nominal	VN32 1.47 ns/ft (4.82 ns/m) VN67 1.27 ns/ft (4.167 ns/m)	VN32 10 kV at 60 Hz VN67 1.2 kV at 60 Hz

Mechanical data

Finisher Outer Diameter	Static Bend Radius	Max. Operating Temperature
0.625 in (1.588 cm)	4.0 in (10.16 cm)	-75° to 248°F (-60° to 120°C) VN32 includes VN26, VN18, VN8, VN4 VN67 includes VN34, VN40 and VN50

Cable Construction

Inner Conductor:	Dielectric	Outer Conductor:	Standard Finish
Solid Ag-plated Cu	VN32, VN67 Foamed FEP, PTFE	GrooveTube™	Metal/Braid/Metal Conduit

Available Connectors

1.85mm, 2.4mm, 2.92mm, 3.5mm, 7mm, SMA, TNC, Type N

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**VN67, includes VN34, VN40, and VN50

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Specifications

Frequency		VN32 Series*		VN67 Series**		Conn Loss dB	VSWR
		Attenuation		Attenuation			
Band	Ghz	dB/ft	dB/m	dB/ft	dB/m		
UHF	0.3	0.062	0.203	0.104	0.341	0.006	1.10
	0.5	0.082	0.268	0.135	0.443	0.009	
	0.8	0.106	0.348	0.172	0.566	0.012	
L	1.0	0.120	0.394	0.194	0.635	0.014	
S	2.0	0.178	0.585	0.279	0.915	0.024	1.15
	2.4	0.199	0.652	0.307	1.009	0.027	
	3.0	0.227	0.744	0.347	1.137	0.032	
C	4.0	0.270	0.885	0.405	1.328	0.040	
	6.0	0.347	1.138	0.505	1.658	0.055	
X	8.0	0.417	1.367	0.593	1.945	0.070	1.20
	10.0	0.482	1.580	0.672	2.205	0.084	1.25
	12.4	0.555	1.822	0.759	2.491	0.101	1.30
Ku	15.0	0.631	2.070	0.847	2.779	0.118	
	18.0	0.715	2.345	0.941	3.089	0.139	1.35
K	20.0	0.769	2.522	1.001	3.285	0.152	
	22.0	0.821	2.695	1.059	3.475	0.165	
	24.0	0.873	2.865	1.115	3.659	0.178	
	26.5	0.937	3.073	1.183	3.881	0.194	
KA	28.0	0.974	3.196	1.223	4.011	0.204	1.40
	30.0	1.024	3.358	1.274	4.181	0.217	
	32.0	1.072	3.518	1.325	4.347	0.230	
	34.0			1.375	4.510	0.243	1.45
	36.0			1.423	4.669	0.256	
V	40.0			1.518	4.980	0.281	1.50
	45.0			1.633	5.356	0.313	
	50.0			1.743	5.719	0.344	1.55
	60.0			1.955	6.414	0.406	
	67.0			2.097	6.881	0.450	1.60
	70.0					0.468	

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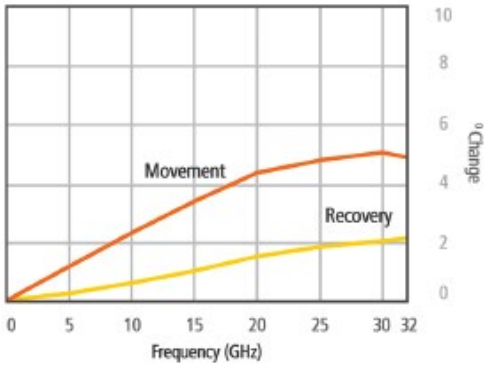
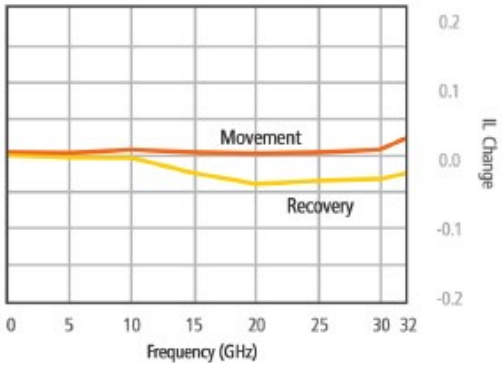
MEGAPHASE VNA TEST PORT EXTENSION CABLES TO 32 GHz

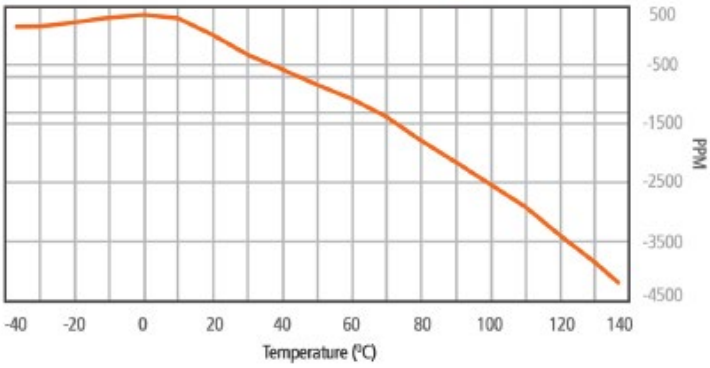
Phase Change vs. Flexure



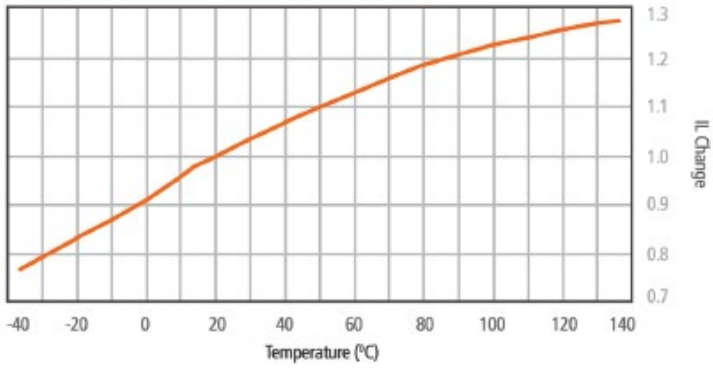
Insertion Loss vs. Flexure



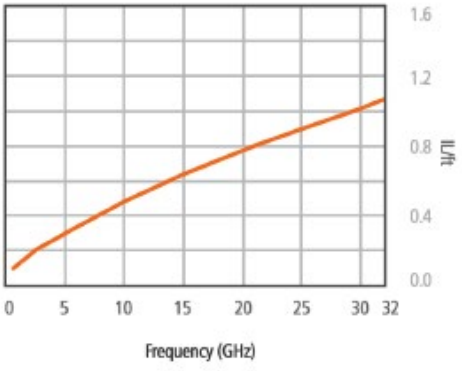
Phase Change vs. Temperature



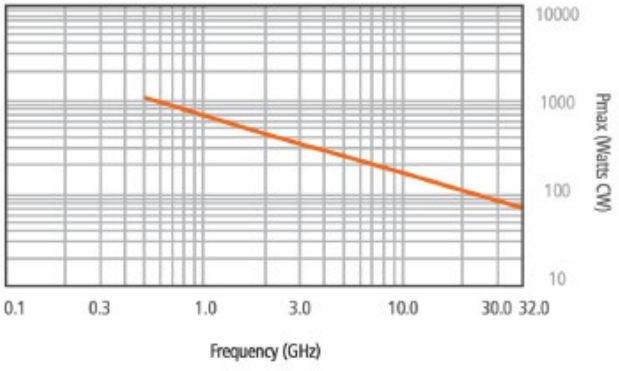
Insertion Loss vs. Temperature



Insertion Loss



Cable CW Power Handling



Note: Data at ambient temperature and sea level. Power handling of a cable assembly is also connector dependent and includes variables such as altitude, temperature and system VSWR. See website for connector power handling standards, including altitude, temperature and VSWR derating.

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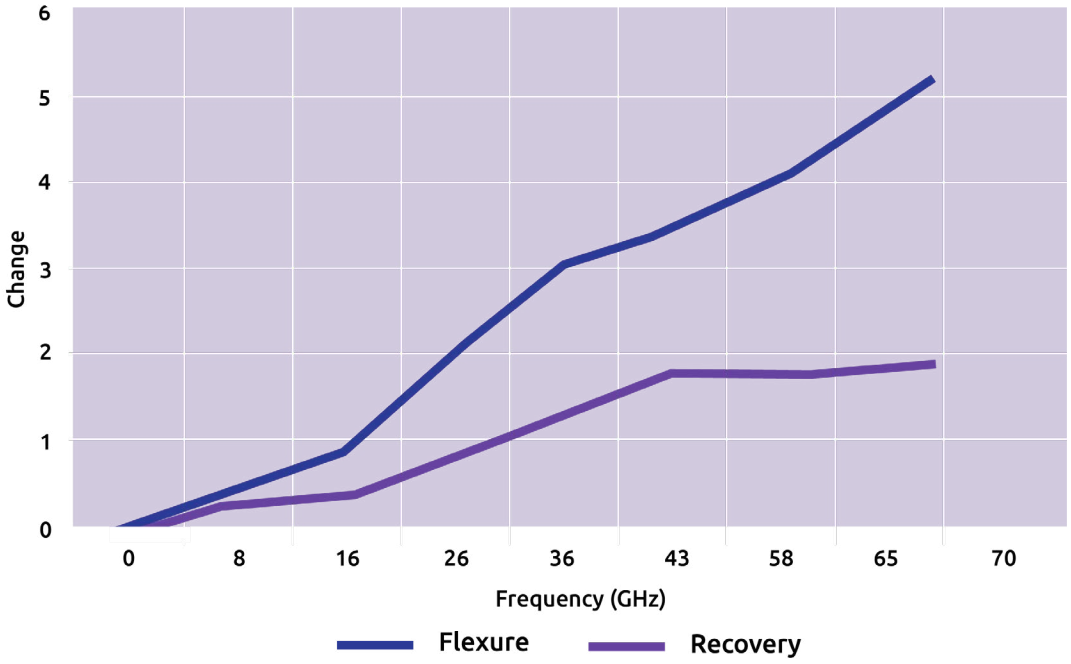
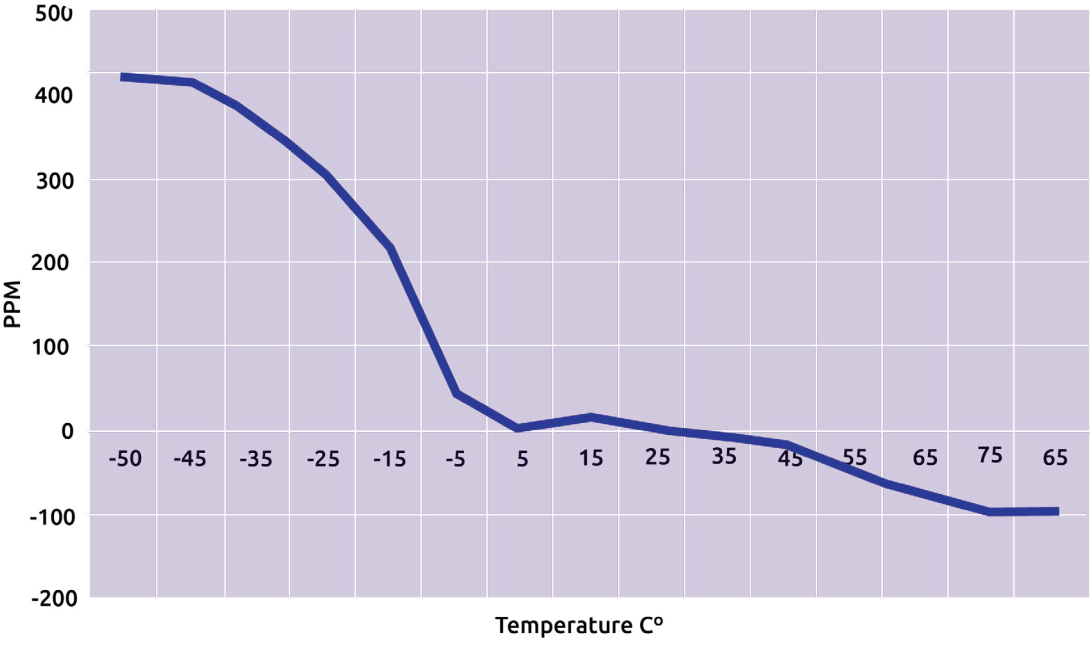
MEGAPHASE VNA TEST PORT EXTENSION CABLES TO 67 GHz

Phase vs. Flexure



Phase vs. Temperature



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MegaPhase

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About us

Founded in 1998 and headquartered in Stroudsburg, Pennsylvania, MegaPhase designs and manufactures high-performance RF coaxial cables and connectors for OEMs in critical markets including test instrumentation, defense, aerospace, telecommunications, and satellite systems. Serving more than 500 customers in 30 countries—including major technology leaders and the U.S. government—MegaPhase is best known for its industry-leading GrooveTube® technology, a breakthrough flexible cable design used in high-reliability, high-power, and phase-defined applications across ground, sea, air, and space platforms. All products are manufactured in-house, tested 100% in a state-of-the-art RF lab up to 110 GHz, and engineered to deliver exceptional phase stability, low loss, and long-term measurement repeatability, helping customers achieve more reliable results at a lower cost per measurement.

MegaPhase

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