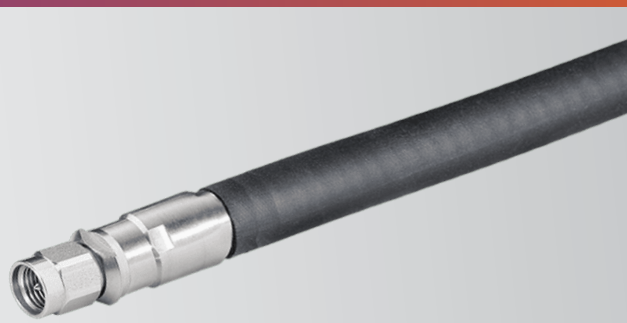

SURVIVOR™ MEGAPHASE SURVIVOR™ RUGGEDIZED CABLES TO 50 GHZ

Survivor™ Ruggedized Cables to 50 GHz

Low Loss Armored Cables for reliable operation in rigorous test and installation environments through 50 GHz.

- Crush Resistant
- Low Loss Performance
- Stainless Steel Armor
- Robust Connector Termination
- Wide Variety of Connector

Electrical Data

Maximum Frequency	Impedance	Propagation Velocity	Time Delay
NC11: 50.0 GHz NC12: 40.0 GHz NC19: 26.5 GHz NC29: 18.0 GHz	50 Ω nominal	NC11: 84% nominal NC12: 84% nominal NC19: 84% nominal NC29: 84% nominal	NC11: 1.21 ns/ft (3.97 ns/m) NC12: 1.21 ns/ft (3.97 ns/m) NC19: 1.21 ns/ft (3.97 ns/m) NC29: 1.21 ns/ft (3.97 ns/m)

Shielding Effectiveness	Dielectric Withstanding Voltage	Capacitance
-110 dB minimum (cable only)	NC11: 5 kV at 60 Hz NC12: 5 kV at 60 Hz NC19: 10.0 kV at 60 Hz NC29: 15.0 kV at 60 Hz	NC11: 24.4 pF/ft (80.1 pF/m) NC12: 24.4 pF/ft (80.1 pF/m) NC19: 24.4 pF/ft (80.1 pF/m) NC29: 24.4 pF/ft (80.1 pF/m)

Mechanical Data

Finished Outer Diameter	Static Bend Radius	Weight with Standard Jacket/ Armor	Crush Resistance	Operating Temp. Range
NC11: 0.275 in (0.698 cm) NC12: 0.275 in (0.699 cm) NC19: 0.400 in (1.016 cm) NC29: 0.575 in (1.461 cm)	NC11: 1.75 in (4.44 cm) NC12: 1.75 in (4.445 cm) NC19: 2.50 in (6.35 cm) NC29: 3.00 in (7.62 cm)	NC11: 0.075 lbs/ft (0.119 kg/m) NC12: 0.080 lbs/ft (0.1191 kg/m) NC19: 0.145 lbs/ft (0.216 kg/m) NC29: 0.220 lbs/ft (0.327 kg/m)	500 lbs/linear in.	-85 to 392° F (-65 to 200° C)

Cable Construction

Inner Conductor	Dielectric	Outer Conductor	Standard Finish	Maximum Length
Solid Ag-plated Cu	PTFE Tape	Ag-plated Cu Strip/ Ag-plated Cu Flat Braid	Neoprene over Metal Armor	35 Feet

Available Connectors

NC12: 1.85 mm, 2.4 mm, 2.92 mm, 3.5 mm, SMA, TNC, Type N
NC19: 3.5 mm, BNC, SMA, TNC, Type N
NC29: 7-16 DIN, SMA, TNC, Type N
Other connectors available upon request

MegaPhase standard connectors are designed using passivated 303 Stainless Steel. These designs pass Salt Spray testing in accordance with Mil-Std-202 Method 101 condition C. MegaPhase suggests for more stringent environments the use of 303 Stainless Steel Gold plated connectors, this must be requested at the time of quoting.

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Specifications

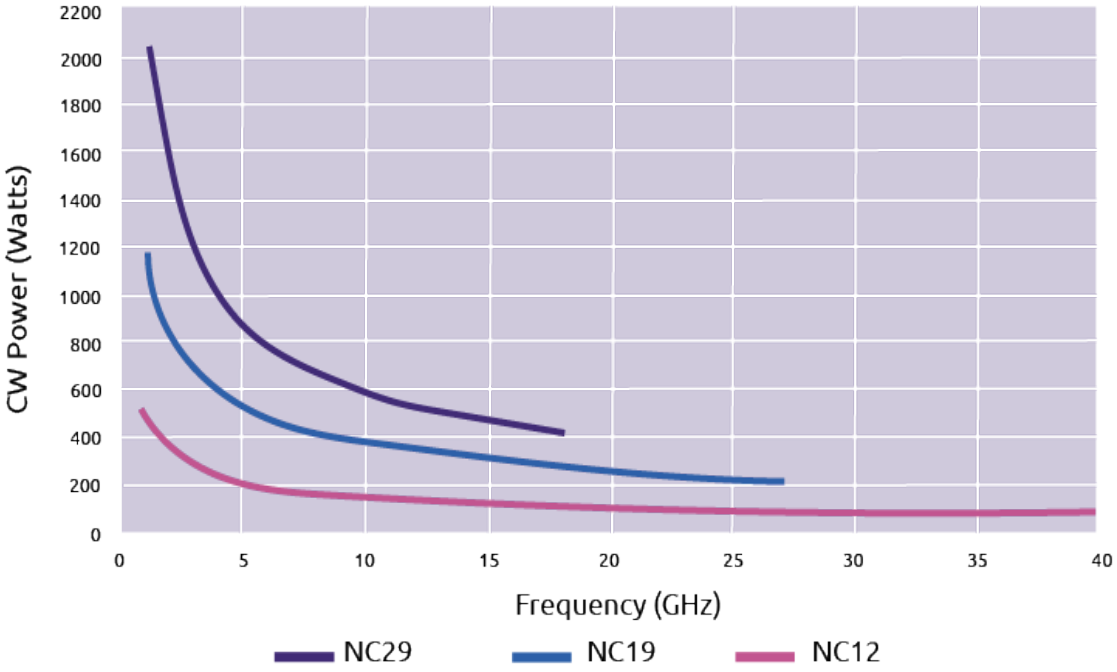
Frequency		NC11 Series Attenuation		NC12* Series Attenuation		NC19** Series Attenuation		NC29*** Series Attenuation		VSWR	Conn. Loss dB
GHz	Band	dB/ft	dB/m	dB/ft	dB/m	dB/ft	dB/m	dB/ft	dB/m		
0.3	UHF	0.074	0.242	0.060	0.196	0.036	0.119	0.029	0.095	1.10	0.006
0.5		0.095	0.313	0.077	0.254	0.047	0.154	0.038	0.124		0.009
0.8		0.098	0.396	0.098	0.323	0.060	0.196	0.048	0.157		0.012
1.0	L	0.121	0.443	0.110	0.362	0.067	0.220	0.054	0.177		0.014
2.0	S	0.135	0.629	0.158	0.518	0.096	0.315	0.077	0.253	1.15	0.024
2.4		0.174	0.690	0.174	0.570	0.105	0.346	0.085	0.279		0.027
3.0		0.192	0.772	0.195	0.640	0.119	0.389	0.096	0.314		0.032
4.0	C	0.210	0.893	0.227	0.745	0.138	0.453	0.111	0.365		0.040
6.0		0.235	1.098	0.281	0.923	0.171	0.562	0.138	0.454		0.055
8.0	X	0.388	1.272	0.328	1.077	0.200	0.656	0.162	0.531	1.20	0.070
10.0		0.434	1.425	0.370	1.215	0.226	0.740	0.183	0.600	1.25	0.084
12.4		0.485	1.592	0.416	1.366	0.254	0.832	0.206	0.676	1.30	0.101
15.0	Ku	0.535	1.755	0.462	1.516	0.282	0.924	0.229	0.752		0.118
18.0		0.588	1.928	0.511	1.677	0.312	1.023	0.254	0.833	1.35	0.139
20.0	K	0.620	2.036	0.542	1.778	0.331	1.085	-	-		0.152
22.0		0.652	2.138	0.571	1.875	0.349	1.145	-	-		0.165
24.0		0.682	2.237	0.600	1.969	0.366	1.202	-	-		0.178
26.5		0.718	2.355	0.635	2.082	0.388	1.272	-	-	1.40	0.194
28.0	Ka	0.739	2.423	0.655	2.148	-	-	-	-		0.204
30.0		0.766	2.512	0.681	2.233	-	-	-	-		0.217
32.0		0.792	2.598	0.706	2.317	-	-	-	-		0.230
34.0		0.817	2.681	0.731	2.398	-	-	-	-	1.45	0.243
36.0		0.842	2.762	0.755	2.478	-	-	-	-		0.256
40.0		0.890	2.919	0.803	2.633	-	-	-	-	1.50	0.281
45.0	V	0.946	3.104								0.313
50.0		1.000	3.281								0.344

*NC12: 1.85 mm, 2.4 mm, 2.92 mm, 3.5 mm, SMA, TNC, Type N
** NC19: 3.5 mm, BNC, SMA, TNC, Type N
*** NC29: 7-16 DIN, SMA, TNC, Type N

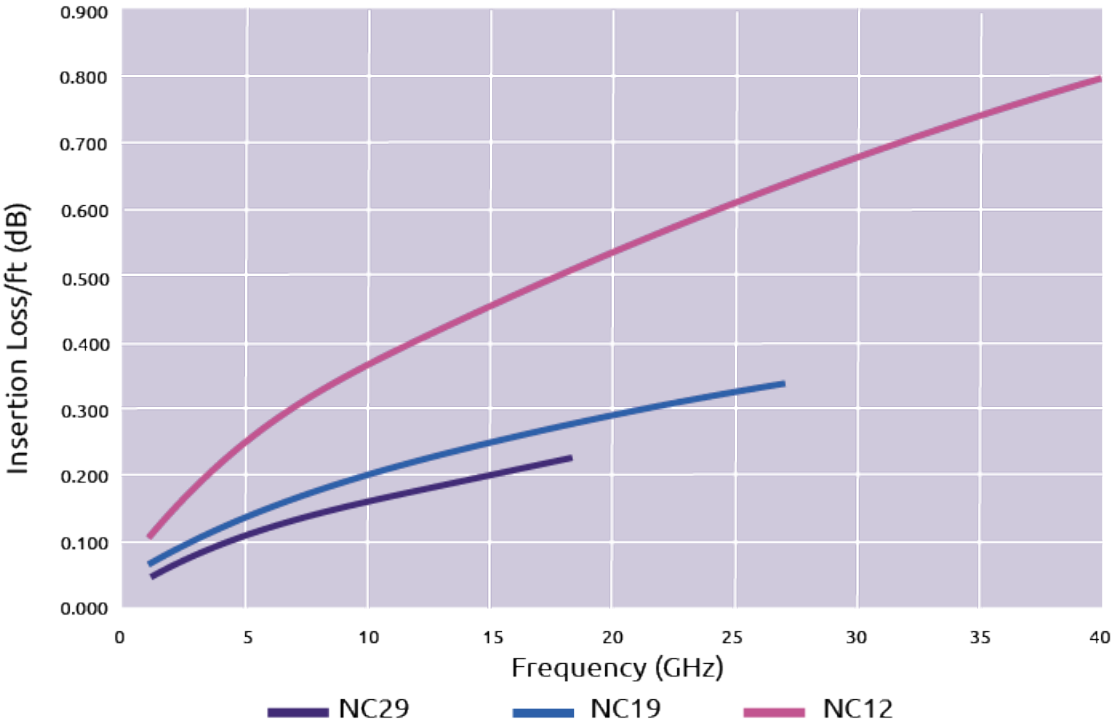
Note: Typical Insertion Loss dB = (Attenuation)(Length) +2(Conn. Loss)
Attenuation at any frequency = NC12: (0.1073 x √freqGHz) + (0.0031 x freqGHz);
NC19: (0.065 x √freqGHz) + (0.002 x freqGHz);
NC29: (0.052 x √freqGHz) + (0.00185 x freqGHz)

MEGAPHASE SURVIVOR™ RUGGEDIZED CABLES TO 50 GHZ

Cable CW Power Handling



Insertion Loss



*NC12: 1.85 mm, 2.4 mm, 2.92 mm, 3.5 mm, SMA, TNC, Type N
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MegaPhase®

With the right connection anything is possible

Visit us at megaphase.com

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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