

Clarity™ Series

18, 26.5, and 40 GHz Test Cables

Clarity™ Series 18, 26.5, and 40 test cables provide industry-leading performance, unparalleled value, and stock to 4-week lead times.

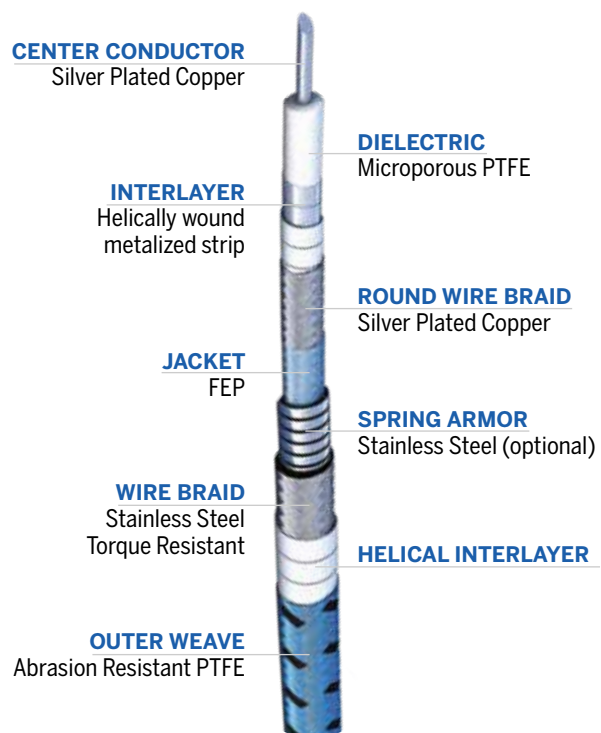


Applications:

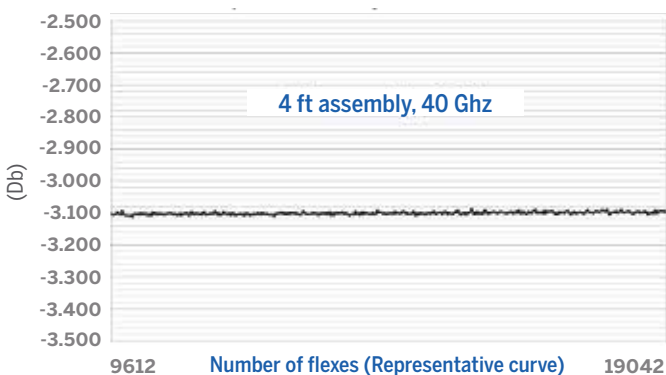
- Research & Development Labs
- VNA Test Port Extension Cables
- Scalar Analyzers
- High Volume Production Test
- System Level RF Connection
- Test Rack Interconnect
- Bench or Portable Test Equip.
- Antenna Ranges
- Anechoic Chambers
- RF Module Testing

CONNECTORS & STRAIN RELIEF:

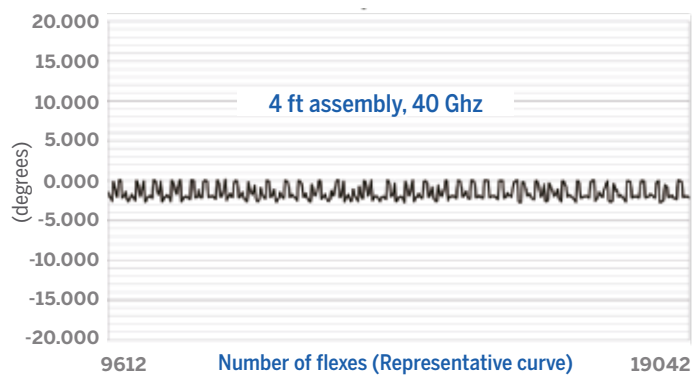
- User friendly stainless steel SureGrip™ knurled coupling nut
- Unique, elliptical-shaped, Sure-Grip™ injection molded strain relief (Armored version only)



Amplitude Stability While in Motion



Phase Stability While in Motion



Specifications

MECHANICAL

		Units	
Armored Diameter:	armor	in (mm)	0.29 (7.37)
	strain relief	in (mm)	0.50 (12.70)
Unarmored Diameter:	cable	in (mm)	0.190 (4.83)
	strain relief	in (mm)	0.425 (10.8)
Minimum Bend Radius	armored	in (mm)	1.5 (38)
	armored max flex life	in (mm)	3.0 (76)
	unarmored	in (mm)	1.0 (25)
	unarmored max flex	in (mm)	2.0 (50)
Flex Life ¹	unarmored		25,000
	armored		50,000
Crushing	(armored version)	lbs/lin.in	200
Mating life cycle ²			5000

CABLE POWER HANDLING (Cable only)

	18 GHz	26.5 GHz	40 GHz
@77°F (25°C) sea level, watts (max)	18	15	13

ELECTRICAL

	Impedance 50 Ohms	Op Temp -67 to 221°F -55 to 125°C
Velocity of Propagation	%	78
Shielding Effectiveness	dB	>100
Capacitance	pF/ft (pF/m)	26 (85)

	Units	18 GHz	26.5 GHz	40 GHz
VSWR (Maximum)		1.20:1	1.25:1	1.35:1
Phase Stability typical *	°	+/- 1.0	+/- 1.5	+/- 2.0
Amplitude Stability typical *	dB	+/- 0.02	+/- 0.035	+/- 0.04

*The assembly is terminated with a short circuit and bent 90 degrees around the mandrel of 1-inch radius.

Attenuation	1000 MHz	18000 MHz	26500 MHz	40000 MHz
dB/FT (db/M)	0,099 (0,301)	0,441 (1,364)	0,543 (1,655)	0,679 (2,070)

CALCULATION

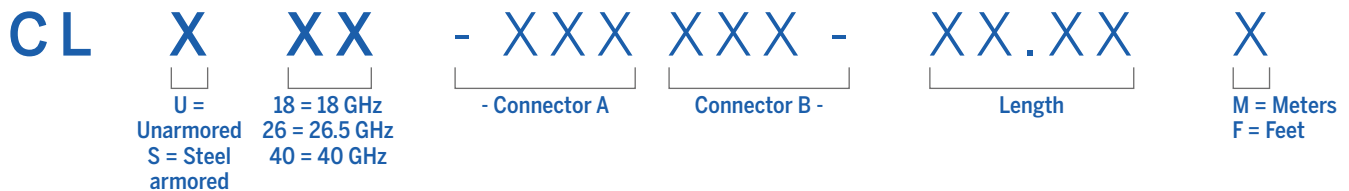
$$IL = (K1 \times \sqrt{f}) + K2 \times (f) \times \text{Cable Length}$$

Cable Insertion Loss
(f) is in MHz

Length unit must
match K value unit

k values	dB/ft	db/m
K1	0.377	0.1149096
K2	0.000159	4.84632e-5

Ordering Guide



Connector Code	Description	Connector Code	Description
SM	SMA male SureGrip knurl (18 or 26.5 GHz)	NMR	N Male Right Angle
SH	SMA male hex nut (18 or 26.5 GHz)	KM	2.92mm male SureGrip knurl (40 GHz)
SF	SMA female (18 or 26.5GHz)	KH	2.92mm male hex nut (40 GHz)
SMR	SMA right angle SureGrip knurl (18 GHz)	KMR	K (2.92mm) right angle SureGrip knurl (40 GHz)
35M	3.5mm male SureGrip knurl (26.5 GHz only)	KF	2.92mm female (40 GHz)
35H	3.5mm male hex nut (26.5 GHz only)	KRF	K ruggedized female (40 GHz only)
35F	3.5mm female (26.5 GHz only)	24M	2.4mm male SureGrip knurl (40 GHz only)
3RF	3.5mm ruggedized female (NMD) 26.5 GHz only	24H	2.4mm male hex nut (40 GHz only)
NM	Type N male (18 GHz)	24F	2.4mm female (40 GHz only)
NF	Type N Female (18 GHz)	2RF	2.4mm ruggedized female (NMD) (40 GHz only)

Specifications subject to change without notice.