

# Clarity™ Series

18, 26.5, and 40 GHz Test Cables



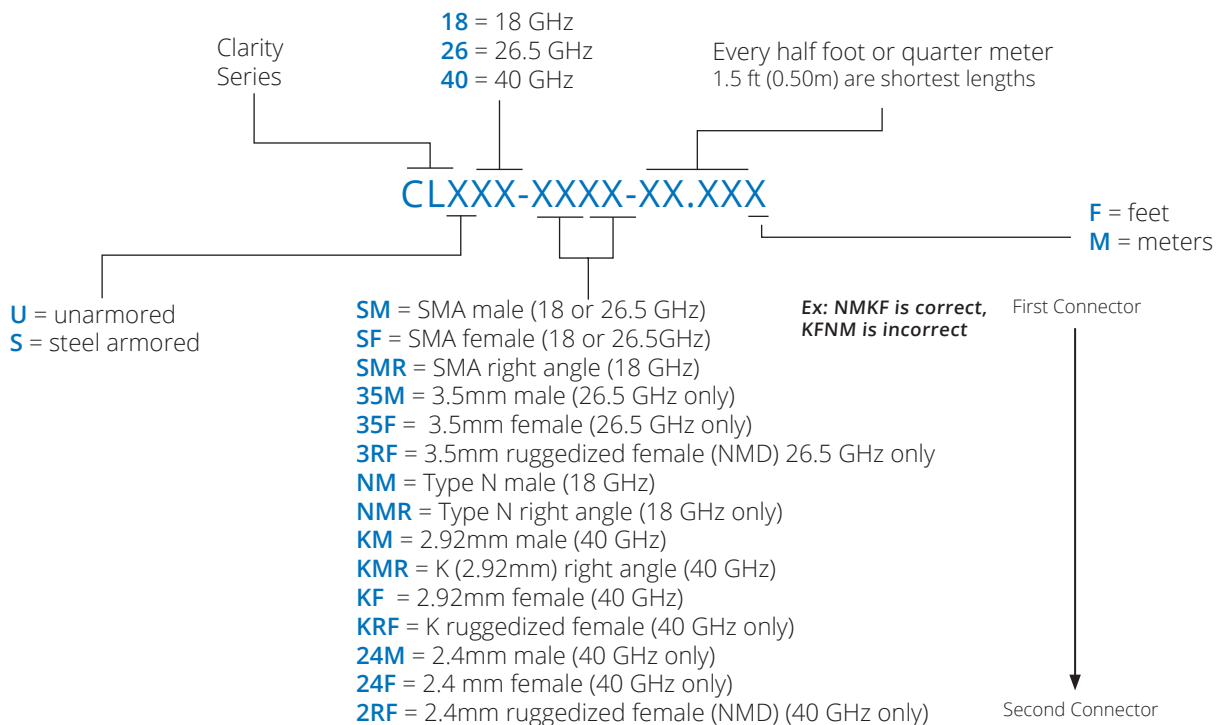
## Applications :

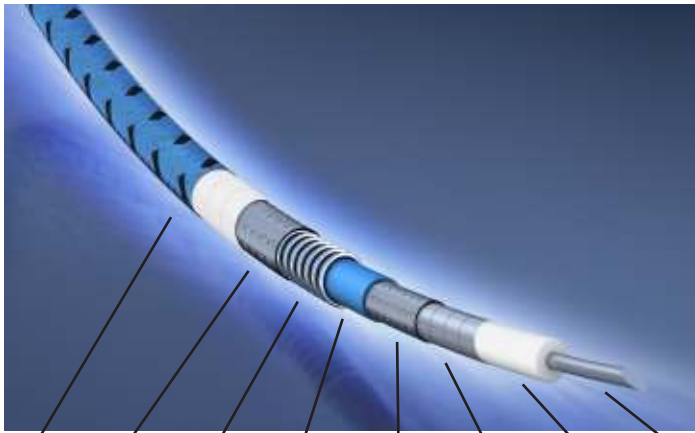
- Research & Development Labs
- VNA Test Port Extension cables
- Scalar Analyzers
- High Volume Production Test
- System Level RF Connection
- Test Rack Interconnect
- Bench or Portable Test Equipment
- Antenna Ranges
- Anechoic Chambers
- RF Module Testing

**When everything is important, Times new Clarity™ Series is the clear choice. Industry-leading performance and unparalleled value.**

- |                            |                             |               |                     |
|----------------------------|-----------------------------|---------------|---------------------|
| • Broad Frequency Response | • Torque Resistance         | • Consistency | • Aesthetics        |
| • Ruggedness & Durability  | • Connector retention       | • Reliability | • Lead Time         |
| • Wide Temperature Range   | • Low Attenuation           | • Flexibility | • Cost of ownership |
| • Crush & Kink Resistance  | • RF stability with flexure | • Ergonomics  |                     |

## Ordering Information:





- Abrasion resistant PTFE outer weave
- Stainless steel torque resistant wire braid
- Stainless steel spring armor (optional)
- FEP Jacket
- Silver plated copper round wire braid
- Helicly wound metalized strip and interlayer
- Micro-porous PTFE
- Solid silver plated copper center conductor

### Connectors & Strain Relief :

- Super-sharp stainless steel SureGrip™ knurled coupling nut
- Unique, elliptical-shaped, Sure-Grip™ injected molded strain relief (Armored version only)

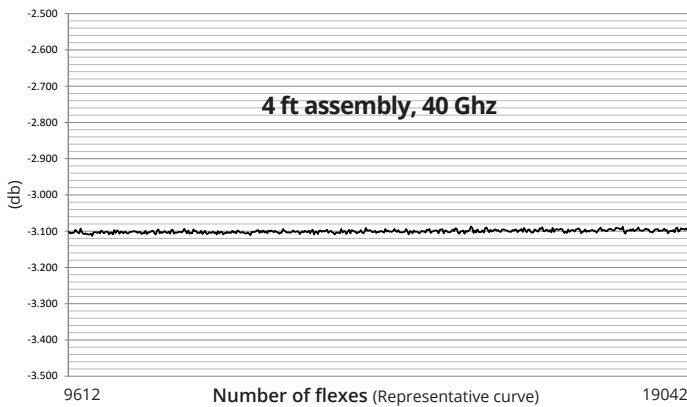


Mechanical Specifications		
Dimensions	in	mm
Armored Diameter: armor/strain relief	0.29 / 0.50	7.95 / 12.70
Unarmored Diameter: cable/strain relief	0.190 / 0.425	5.5 / 10.8
Min bend radius, armored (max flex life)	1.5 (3.0)	38 (76)
Min bend radius, unarmored (max flex life)	1.0 (2.0)	25 (50)
Flex Life <sup>1</sup> (unarmored/armored)	25,000 / 50,000	
Crushing (armored version)	200 lbs/lin.in.	
Mating life cycle <sup>2</sup>	5000	

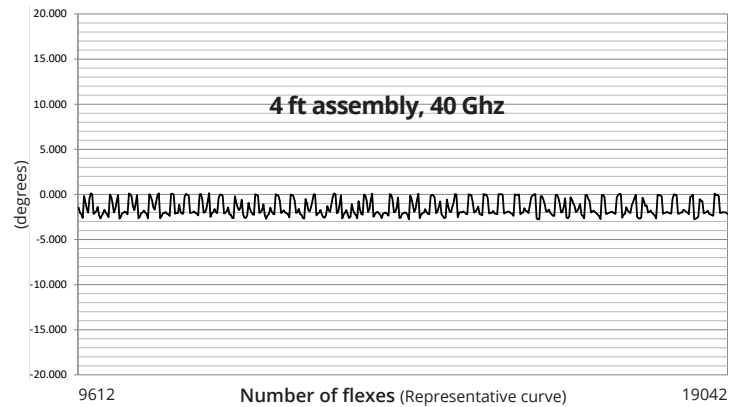
Electrical Specifications @ Room Temperature				
Impedance	50 ohms			
Velocity of Propagation	78%			
Shielding Effectiveness	> 100 db			
Capacitance	26pf/ft (85pf/m)			
VSWR (maximum)	18 GHz	26.5 GHz	40 GHz	
	1.20:1	1.25:1	1.35:1 <sup>3</sup>	
Phase Stability (degrees)*	typical	+/- 1.0	+/- 1.5	+/- 2.0
Amplitude Stability (db)*	typical	+/- 0.02	+/- 0.035	+/- 0.04
Attenuation, max @ 77°F (25°C)	db/100 ft	51	63	82
	(db/100 m)	(167)	(206)	(269)
Cable Power Handling (Cable Only)				
@77°F (25°C) sea level, watts (max)	18	15	13	

- 1 As tested using Times' flex testing methods. 4ft long cable. Longer cables can have more total instability. Assumes test equipment is calibrated every 8 hours. New cables can have a break in period of several hundred flexes before optimum stability occurs. Contact your Times representative or the factory for a copy of this test procedure and/or actual test results.
- 2 SMA and Type N male only. Achieving or extending mating life requires the strict use of a calibrated torque wrench at all times and careful, deliberate mating so as not to damage center contacts. Inspect and clean all interfaces frequently and check that mating interfaces are within IEEE 287 connector standards. Failure to do so may void warrantee.
- 3 1.40:1 for 2.92mm right angle

Amplitude Stability while in motion



Phase Stability while in motion



### Always :

- Inspect interfaces before every mate. Clean frequently
- Gently start the coupling nut. Fully thread & tighten w/ fingers first
- Use a calibrated torque wrench
- Cap connectors and protect the assembly when not in use
- Have replacements available in the event they are needed

### Never :

- Force the cable beyond the recommended minimum bend radius
- Force two connectors. If any resistance is felt STOP and examine
- Mate 2.92mm to other than SMA or 3.5mm series
- Mate connectors that have non-concentric contacts
- Insert foreign or dirty objects into the interface

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