

## Clarity™ 70

### TEST AND MEASUREMENT

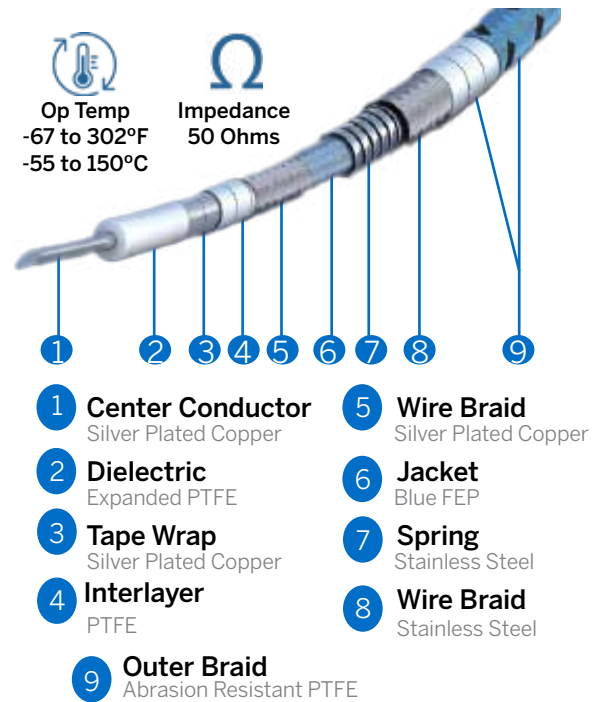
The *Clarity 70* test cable boasts steel torque, crush and overbend protection with abrasion resistance - without compromising flexibility. The cable is ultra-stable through 70 GHz with exceptionally low attenuation. The design includes an ergonomic, stainless steel protective barrel strain relief and a hex coupling nut.

### Specifications

	Units		
Diameter	in (mm)	0.20	(5.08)
Weight	lb/ft (kg/m)	0.01	(0.02)
Minimum Bend Radius	in(mm)	1.00	(25.4)
Crushing	lb/lin (kg/lcm)	200	(35.75)
Flex Life		>50000	
Maximum Frequency	GHz	70	
Velocity of Propagation	%	80	
Capacitance	pF/ft (pF/m)	24.6	(80.7)
Delay	ns/ft (ns/m)	1.27	(4.14)
Shielding	dB	-90	
VSWR Typical		1.35:1	
VSWR Max		1.40:1	
Phase Stability	°	+/- 5	
Amplitude Stability	dB	+/- 0.10	

### FEATURES

- Broad Frequency Response
- Rugged & Durable
- Phase Stable Over Temperature
- Long Flex Life



- 1 Center Conductor  
Silver Plated Copper
- 2 Dielectric  
Expanded PTFE
- 3 Tape Wrap  
Silver Plated Copper
- 4 Interlayer  
PTFE
- 5 Wire Braid  
Silver Plated Copper
- 6 Jacket  
Blue FEP
- 7 Spring  
Stainless Steel
- 8 Wire Braid  
Stainless Steel
- 9 Outer Braid  
Abrasion Resistant PTFE

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

Cable Insertion Loss

Length unit must match K value unit.

#### K Values

	dB/ft	dB/m
K1	0.00611	0.01862328
K2	0.000136	4.14528E-06

f= Frequency in MHz

#### Attenuation

	dB/100ft	dB/100m
1000 MHz	19.46	59.31
4000 MHz	39.19	119.44
6000 MHz	48.14	146.74
10000 MHz	62.46	190.38
18000 MHz	84.42	257.32
26500 MHz	103.07	314.15
40000 Mhz	127.64	389.05
67000 Mhz	167.27	509.82
70000 Mhz	171.18	521.74



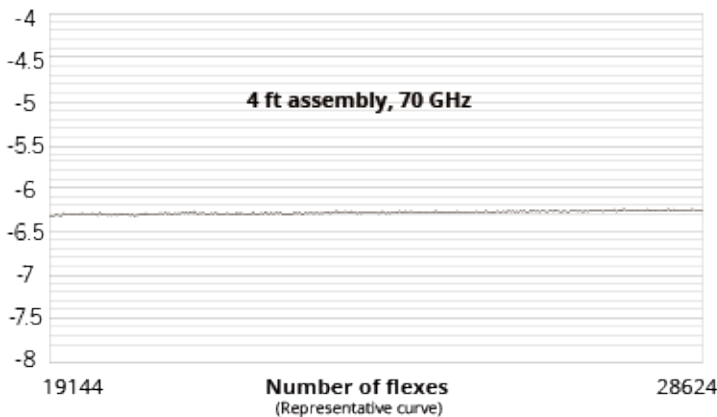
### Ordering Guide

CLS70- 18M 18M-XX.XX M

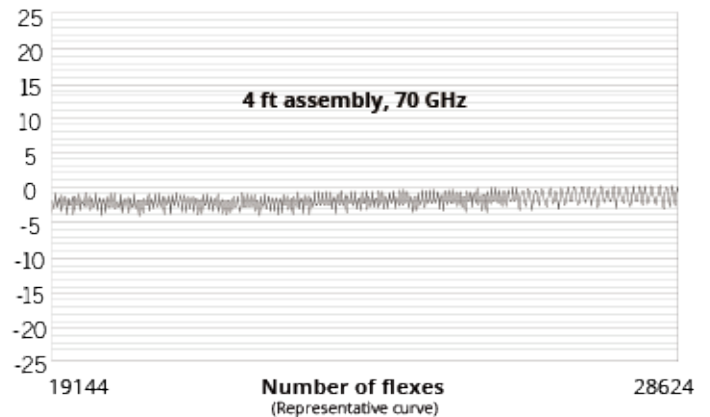


Abbreviation	Description
18M	1.85mm Male connector
18F	1.85mm Female connector
18RF	1.85mm Ruggedized Female

#### Amplitude Stability while in motion



#### Phase Stability while in motion



Our flex test method uses 4ft cables at 70GHz. The testing equipment calibration occurs every 8 hours. Email us at [techquestions@timesmicro.com](mailto:techquestions@timesmicro.com) to obtain a copies of test procedure specifications and results.



Heritage—in the air and on the ground, thousands of assemblies built over decades



Global manufacturing capability: US, Europe and Asia.



Assembled and tested assemblies provide assured performance

#### WORLD HEADQUARTERS

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