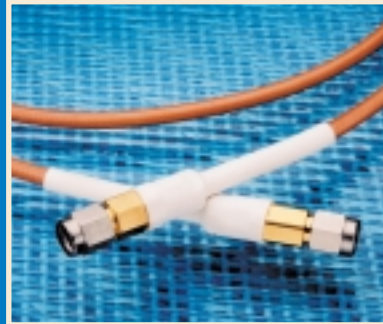


Testmate -175, -230, -230R and -340R coaxial test cables provide reliable electrical performance for daily dependability in test lab and production environments as well as in fixed system interconnection applications:

- *High Volume Test Lab and Production Line Test Operations*
- *Field Installation, Test and Verification*
- *Quality and Maintenance Test Programs*
- *Upgrade or Replacement of Damaged or Obsolete RF Test Cables*
- *Fixed System RF/Microwave Interconnection*



Testmate-175



Testmate-230



Testmate-230R



Testmate-340R

All Testmate cables include proprietary triple shielding systems with unique high quality Times Microwave Systems' connectors. Testmate-175 has a high temperature (up to 150°C) fluoropolymer jacket, while Testmate-230, -230R and 340R have heavy duty polyurethane jackets. Testmate-230R and -340R incorporate front end connectors that are removable and can be interchanged with a variety of different connector types.

Features & Benefits:

- Low Attenuation
- Long Term Electrical Stability
- Rugged Construction
- **Testmate-175** — Operates to 40 GHz
Testmate-230, -230R, -340R — Operate to 18 GHz
- **Testmate-175** — Uses High Performance 2.9mm (K) Connectors
- **Testmate-230** — Uses High Performance SMA and N Connectors
- **Testmate-230R, -340R** — Uses High Performance TNC, SMA, N and 7mm Connectors that are Field Interchangeable

Testmate Specifications:

Specifications				
	Testmate-175	Testmate-230	Testmate-230R	Testmate-340R
Outside Diameter	0.175 inch	0.3 inch	0.3 inch	0.5 inch
Minimum Bend Radius	1.00 inch	1.5 inches	2.0 inches	2.0 inches
Tested Frequency Range	2.0 to 40 GHz	0.5 to 18 GHz	0.5 to 18 GHz	0.5 to 18 GHz
Characteristic Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms
VSWR	2.0 – 2.4GHz 1.30:1 max 12.4 – 40.0 GHz 1.40:1 max	1.35:1 maximum	1.35:1 maximum	1.35:1 maximum
Phase Stability	5° at 18 GHz when wrapped around an 8" diameter mandrel			5° at 18 GHz when wrapped around an 12" diameter mandrel
Shielding Effectiveness	Better than -100dB	Better than -100dB	Better than -100dB	Better than -100dB
Maximum Operating Voltage	1000 Volts	2500 Volts (1000 Volts with SMA)	2500 Volts (1000 Volts with SMA)	2500 Volts (1000 Volts with SMA)
Operating Temperature Range	-55 to +150°C	-55 to +90°C	-55 to +90°C	-55 to +90°C

Cable and Connector Insertion Loss vs. Frequency				
	Maximum Cable Insertion Loss @ 23°C dB/foot (dB/meter)			Connector Loss dB/pair
Frequency (MHz)	Testmate-175	Testmate-230 & 230R	Testmate-340R	Testmate-175, 230 230R & 340R
500	0.09 (0.28)	0.07 (0.22)	0.04 (0.13)	0.075*
1,000	0.12 (0.40)	0.10 (0.32)	0.06 (0.19)	0.10
2,000	0.17 (0.57)	0.14 (0.45)	0.08 (0.27)	0.15
4,000	0.25 (0.81)	0.20 (0.64)	0.12 (0.38)	0.20
6,000	0.30 (1.00)	0.24 (0.79)	0.14 (0.47)	0.22
8,000	0.35 (1.16)	0.28 (0.92)	0.17 (0.55)	0.25
10,000	0.40 (1.30)	0.32 (1.03)	0.19 (0.62)	0.27
12,000	0.44 (1.43)	0.35 (1.14)	0.21 (0.68)	0.28
14,000	0.47 (1.55)	0.38 (1.23)	0.23 (0.74)	0.30*
16,000	0.51 (1.66)	0.40 (1.32)	0.24 (0.80)	0.31*
18,000	0.54 (1.77)	0.43 (1.41)	0.26 (0.85)	0.33
26,000	0.65 (2.15)	N/A	N/A	0.41
40,000	0.82 (2.70)	N/A	N/A	0.51
Cable Insertion Loss at Intermediate Frequencies = [k1 x SqRt (FMHz)] + [k2 x FMHz], where FMHz is the frequency in MHz**				
dB at 100 Feet (dB at 100 meters)				
K1	.3822 (1.2536)	.29984 (.9835)	.1742 (.5715)	
K2	.000146 (.000480)	.000146 (.000480)	.000146 (.000480)	

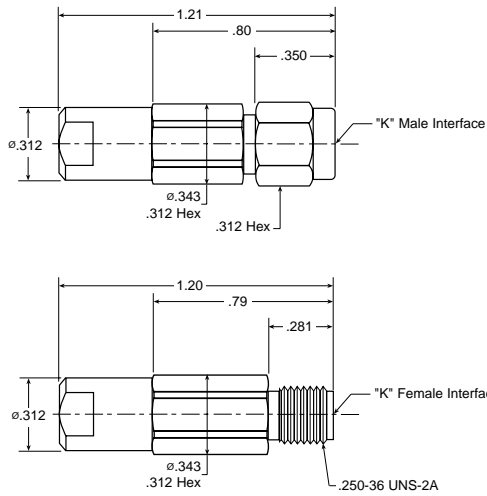
Temperature Coefficient of Insertion Loss = 0.15%/°C

*Does not apply to Testmate-175

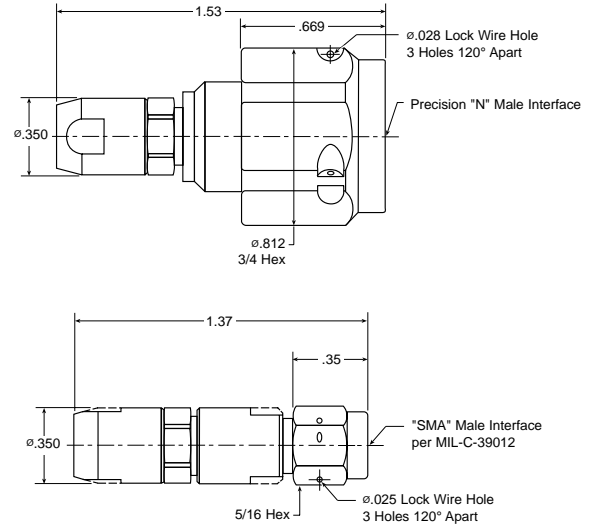
**or use Performance Calculator at www.timesmicrowave.com

Testmate Connectors:

Testmate-175 Connector Types Available 2.9mm (K) Male & Female



Testmate-230 Connector Types Available N & SMA Male



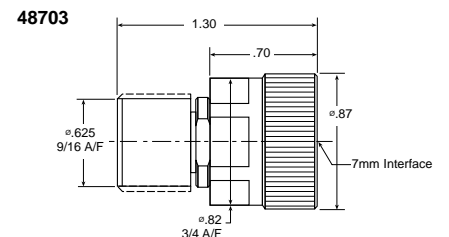
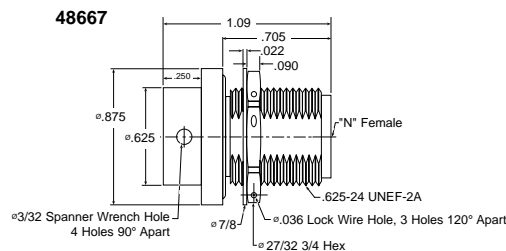
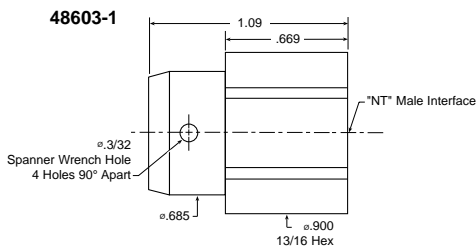
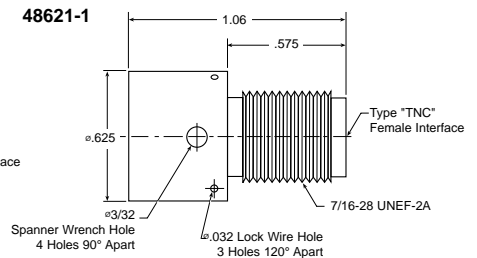
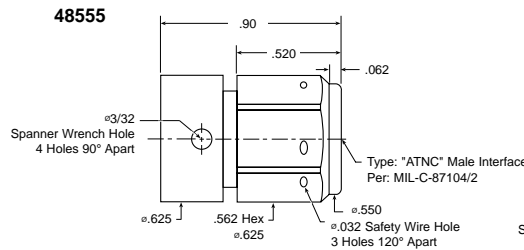
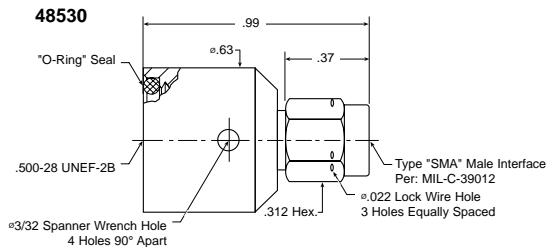
Testmate - 230R & Testmate - 340R Connector Types Available

Connector Designator	Connector Type	Outline Drawing Number	Spanner Tool Part Number
48530	SMA Plug Front End	SD48530	TN550-625
48555	TNC Plug Front End	SD48555	TN550-625
48621-1	TNC Jack Front End	SD48621-1	TN550-625
48603-1	N Plug Front End	SD48603-1	TN550-688
48667	N Jack Front End	SD48667	TN550-625
48703	7mm Front End	SD48703	TN550-625

Replacing Front Ends —

Testmate-230R: Requires one Spanner Tool TN550-500 for the cable side along with the Spanner Tool listed for the connector.

Testmate-340R: Requires one Spanner Tool TN550-625 for the cable side along with the Spanner Tool listed for the connector.



All dimensions shown in inches.

