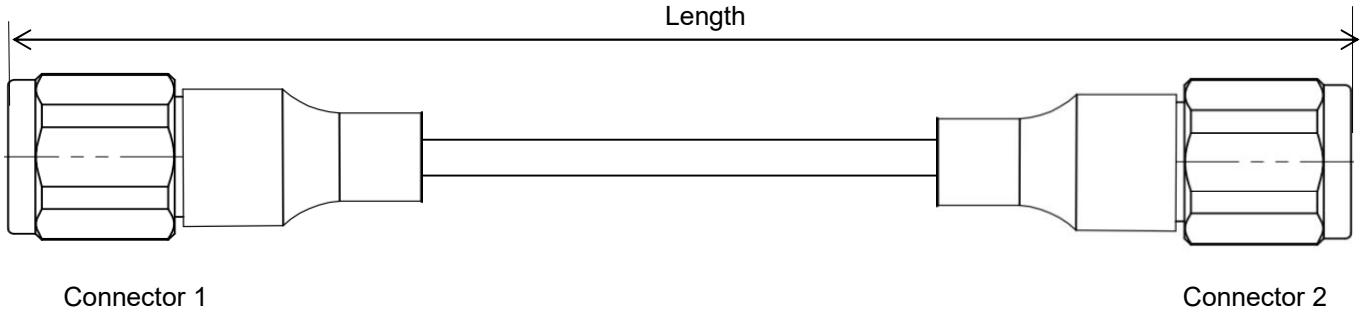


## Thermal Vacuum Phase Stable Cable Assembly, Using TVAC800

DC-18 GHz, TNC Male to TNC Male

TVAC800-TNCMTNCM-L(L:Length)

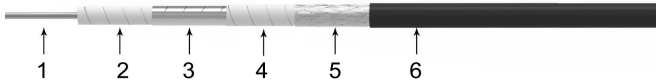


- Length can be in meter or in inch etc, e.g, TVAC800-TNCMTNCM-1M. Standard length tolerance  $\pm 1.5\%$  or  $\pm 5\text{mm}$  whatever is greater.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

### Configuration

Connector 1	Vented TNC male	Connector 2	Vented TNC male
Body	Passivated stainless steel	Body	Passivated stainless steel
Center Contact	Gold plated brass	Center Contact	Gold plated brass
Cable Type	TVAC800		

### Cable and Armor Construction



No.	Construction	Size (mm)	Materials
1	Center Conductor	2.30	Solid silver-plated copper
2	Dielectric	6.25	Low density PTFE
3	Outer Conductor	6.57	Silver-plated copper tape wrap
4	Interlayer	6.73	Low density PTFE
5	Outer Shield	7.24	Silver-plated copper wire braid
6	Jacket	7.80	FEP



### Electrical

Frequency	DC-18 GHz
Impedance	50 $\Omega$
VSWR Max	1.25
*IL Max(1 meter assembly )	1.4dB
**Mechanical Phase Stability	$<\pm 5^\circ$
Amplitude Stability vs Shaking	$<\pm 0.1\text{dB}$

\* Testing by adding two extra TNC to N Type adapters.

\*\* Wrapped 360° around a 80mm radius mandrel.

### Mechanical & Environmental

Min.Bending Radius Static	39mm
Min. Bending Radius Repeated	80mm
Velocity of Propagation	82%
Weight	131g/m
Temperature(Operation)	-55~125 °C
	-55~165 °C available on demand

## Bulk Cable Attenuation(Typical@25°C) & Power(VSWR=1.0; 40°C; Sea level)

Frequency MHz	300	1000	2000	3000	6000	8000	10000	12000	14000	16000	18000
dB/100 Meter	8.0	14.8	21.1	26.0	37.3	43.4	48.9	53.9	58.6	63.0	67.1
Avg.Power kW	3.341	1.812	1.269	1.029	0.716	0.615	0.547	0.496	0.456	0.425	0.398

$$\text{Attenuation at any frequency} = [0.456380 \times \text{SQRT}(\text{FMHz})] + [0.000328 \times \text{FMHz}]$$

- Notes:**
- 1) The above attenuation refers to typical loss of cable only, max loss is 1.1 times of typical loss. Insertion loss per connector is estimated as 0.03dB x SQRT Freq(GHz).
  - 2) Power handling values are calculated based on cable properties. Power handling will vary based on connector type and actual VSWR of the cable assembly.

## Typical Test Data (TVAC800-TNCMTNCM-1M)

