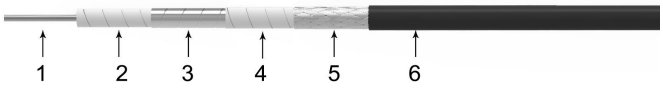
Thermal Vacuum Phase Stable Low Loss Cable

TVAC800 Rev1

Features & Benefits

- Excellent phase stability with flexure 18 GHz ≤5°
- High power handling
- Ideal for thermal vacuum applications
- Low outgassing:TML<1%,CVCM<0.1%
- All with vented connectors
- Available in armor options

Cable 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 Ω
Velocity of Propagation	82%
Shielding Effectiveness	>90 dB
Withstanding Voltage	3600 V
*Mechanical Phase Stability	<±5°
Amplitude Stability vs Shaking	<±0.1dB

* Wrapped 360° around a 80mm radius mandrel.

Mechanical & Environmental

Min.Bending Radius Static	39mm
Min. Bending Radius Repeated	80mm
Weight	131g/m
Temperature(Operation)	-55～150 ºC
Temperature(Storage)	-60～160 ºC

Attenuation(Typical@25℃&VSWR=1.0) & Power(VSWR=1.0; 40℃; 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

Attenuation at any frequency＝[0.456380×SQRT(FMHz)]+[0.000328×FMHz]

Available connectors

Cable P/N	Connectors	Gender	Orientation	Mounting	Max Freq.(GHz)	VSWR Max
TVAC800	SMA	Male	Straight	Standard	18	1.25
TVAC800	N	Male	Straight	Standard	18	1.25
TVAC800	TNC	Male	Straight	Standard	18	1.25

Other connectors available upon request.