



Thermal Vacuum Phase Stable Low Loss Cable Assemblies



RF ONE provides a series of TVAC cable assemblies in type N, SMA, TNC, 2.92mm connectors, available in FEP jacket or in ruggedized armors. All cable assemblies meet the NASA standards outlined in ASTM E-595 for outgassing characteristics.

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Outgassing is the process materials may release volatiles in varying temperature and vacuum conditions or in the space-like environment. Such volatiles could cause serious contamination when deposit on other components.

It is essential that in thermal vacuum (TVAC) chambers, all test and measurement components should be specially designed to use low outgassing materials which meet the requirements of ASTM E-595 with a TML less than 1% and CVCM less than 0.1%.

RF ONE provides a series of TVAC cable assemblies in type N, SMA, TNC, 2.92mm, SSMA connectors, available in FEP jacket or with ruggedized armor protection.

Features

- Low outgassing
- Materials tested per ASTM E-595 with a TML less than 1% and CVCM less than 0.1%
- All with vented connectors
- Phase & Amplitude Stable
- Loss loss design
- 100% X-ray examination

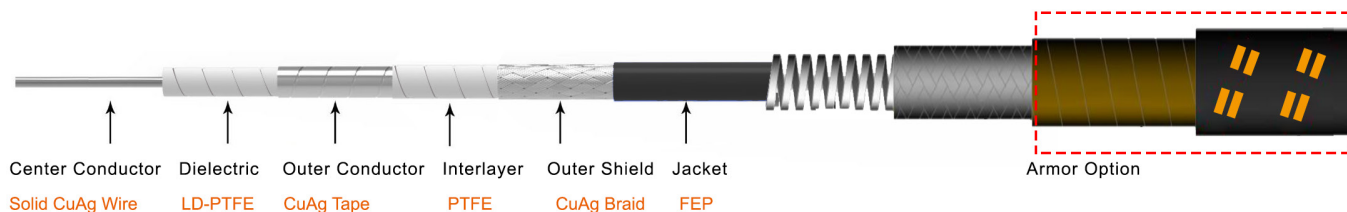


Available Connectors (All connectors with vent holes)

Cable P/N	Connectors	Gender	Orientation	Mounting	Max Freq (GHz)	VSWR Max
TVAC380	SMA	Male	Straight	Standard	26.5	1.30
	2.92mm	Male	Straight	Standard	40	1.35
	SSMA	Male	Straight	Standard	18	1.3
TVAC520	SMA	Male	Straight	Standard	18	1.25
	N	Male	Straight	Standard	18	1.25
	TNC	Male	Straight	Standard	18	1.25
TVAC800	SMA	Male	Straight	Standard	18	1.25
	N	Male	Straight	Standard	18	1.25
	TNC	Male	Straight	Standard	18	1.25

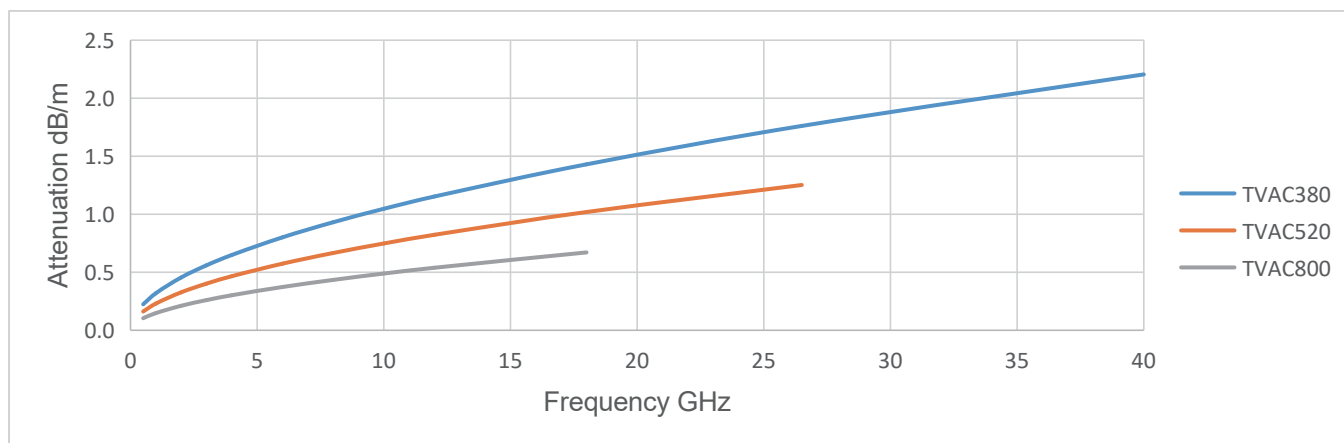
Note: Other connectors available upon request.

Cable Construction

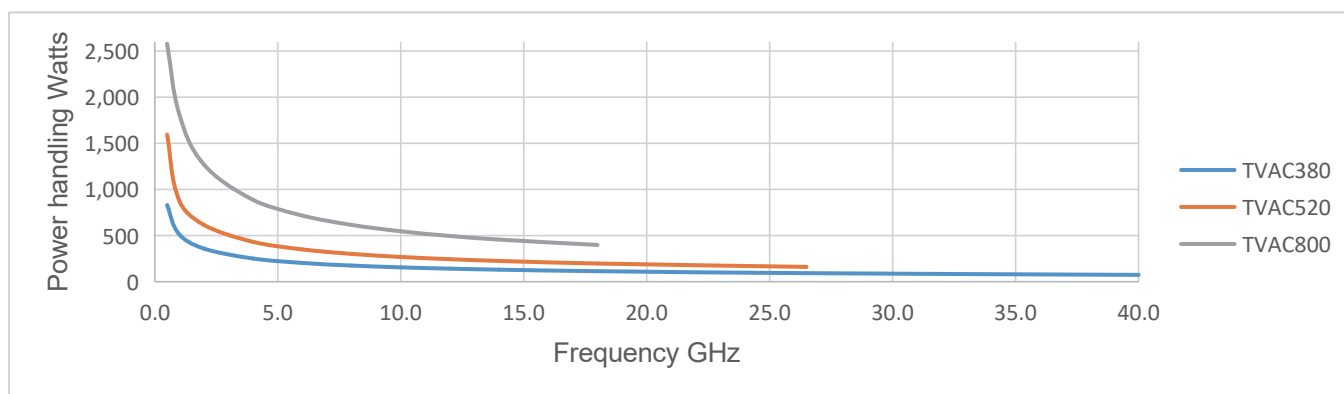


	TVAC380	TVAC520	TVAC800
Cable Construction(Diameter in mm)			
Center Conductor	1.02	1.45	2.30
Dielectric	2.80	4.00	6.25
Outer Conductor	3.00	4.20	6.57
Interlayer	3.24	4.40	6.73
Outer Shield	3.50	4.80	7.24
Jacket	3.80	5.30	7.80
Mechanical			
Min.Bending Radius Static	19mm	27mm	39mm
Min. Bending Radius Repeated	38mm	53mm	80mm
Weight	32g/m	63g/m	131g/m
Temperature range	-55℃ to +165℃		
Electrical			
Operating Frequency	DC-40 GHz	DC-26.5 GHz	DC-18 GHz
Impedance	50 Ω	50 Ω	50 Ω
Velocity of Propagation	82%	82%	82%
Shielding Effectiveness	>90 dB	>90 dB	>90 dB
Withstanding Voltage	900 V	1500 V	3600 V
*Mechanical Phase Stability	<±6°	<±5°	<±5°
**Amplitude Stability vs Shaking	<±0.15dB	<±0.15dB	<±0.1dB
Cable attenuation at 25℃	see graph		
Power handling	see graph		
* Wrap the cable 360 degree around a mandrel whose diameter is ten times of cable outer diameter.			
** Shake the cable assembly at a rate of 90 times per minute at a height of 10 cm.			

Attenuation (nominal values at +25 °C ambient temperature)



Power handling (maximum values at 40 °C ambient temperature and sea level)



How to Order

