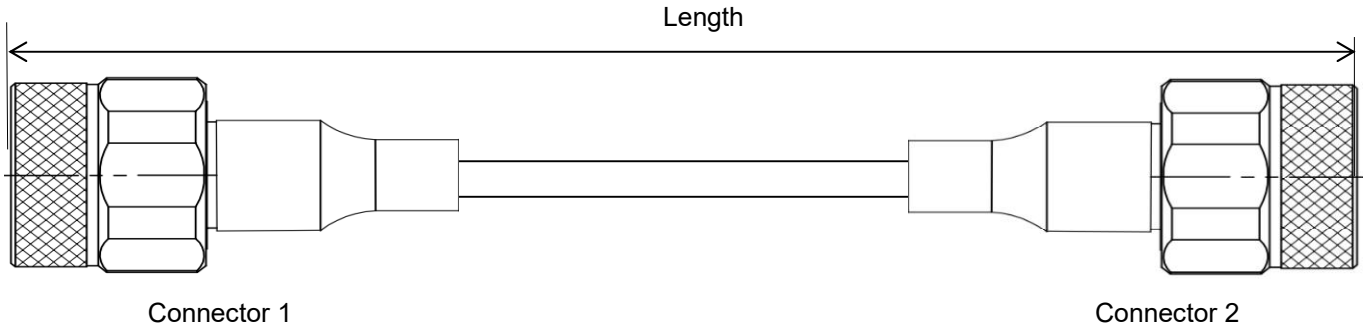
Thermal Vacuum Phase Stable Cable Assembly, Using TVAC520

DC-18 GHz, N Male to N Male

TVAC520-NMNM-L(L:Length)

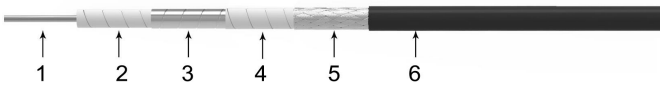


· Length can be in meter or in inch etc, e.g, TVAC520-NMNM-1M. Standard length tolerance ± 1.5% or ±5mm whatever is greater.
· Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

Configuration

Connector 1	Vented N male	**Connector 2**	Vented N male
Body	Passivated stainless steel	Body	Passivated stainless steel
Center Contact	Gold plated brass	Center Contact	Gold plated brass
Cable Type	TVAC520		

Cable and Armor Construction



No.	Construction	Size（mm）	Materials
1	Center Conductor	1.45	Solid silver-plated copper
2	Dielectric	4.00	Low density PTFE
3	Outer Conductor	4.20	Silver-plated copper tape wrap
4	Interlayer	4.40	Low density PTFE
5	Outer Shield	4.80	Silver-plated copper wire braid
6	Jacket	5.30	FEP

Electrical

Frequency	DC-18 GHz
Impedance	50 Ω
VSWR Max	1.25
IL Max(1 meter assembly)	1.5dB
*Mechanical Phase Stability	<±5º
Amplitude Stability vs Shaking	<±0.15dB

Mechanical & Environmental

Min.Bending Radius Static	27mm
Min. Bending Radius Repeated	53mm
Velocity of Propagation	82%
Weight	63g/m
Temperature(Operation)	-55～125 ºC
-55～165 ºC available on demand	

* Wrapped 360˚ around a 53mm radius mandrel.

Bulk Cable Attenuation(Typical@25℃) **& Power**(VSWR=1.0; 40℃; Sea level)

Frequency MHz	300	1000	2000	4000	6000	8000	10000	12000	14000	18000	20000	26500
dB/100 Meter	12.5	23.0	32.7	46.6	57.4	66.6	74.8	82.3	89.3	101.9	107.8	125.2
Avg.Power kW	1.608	0.875	0.615	0.431	0.350	0.302	0.268	0.244	0.225	0.197	0.186	0.160
Attenuation at any frequency＝[0.715686×SQRT(FMHz)]+[0.000328×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 (TVAC520-NMNM-1M)