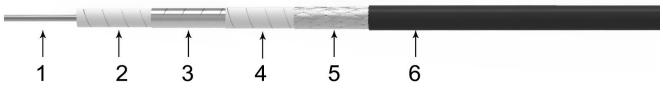
Thermal Vacuum Phase Stable Low Loss Cable

ACTV520 Rev1

Features & Benefits

- Ultra low loss, 1.25dB/meter to 26.5 GHz
- Excellent phase stability with flexure 26.5GHz ≤5°
- 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	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-26.5 GHz
Impedance	50 Ω
Velocity of Propagation	82%
Shielding Effectiveness	>90 dB
Withstanding Voltage	1500 V
*Mechanical Phase Stability	<±5°
Amplitude Stability vs Shaking	<±0.15dB

* Wrapped 360˚ around a 53mm radius mandrel.

Mechanical & Environmental

Min.Bending Radius Static	27mm
Min. Bending Radius Repeated	53mm
Weight	63g/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	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]

Available connectors

Cable P/N	Connectors	Gender	Orientation	Mounting	Max Freq.(GHz)	VSWR Max
ACTV520	SMA	Male	Straight	Standard	18	1.25
ACTV520	N	Male	Straight	Standard	18	1.25
ACTV520	TNC	Male	Straight	Standard	18	1.25

Other connectors available upon request.