

VCA-VA500

Ultra Low Loss Phase Stable Coax Cable

Flexible RF Cables & Assemblies

Features:

- * Low Insertion Loss
- * High Phase Stability
- * High Power
- * Low PIM

Applications:

- * Phased-array Radar
- * Satellite Communication
- * Avionics

Electrical

Frequency:	DC~26.5GHz
Cut-off Frequency:	29GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

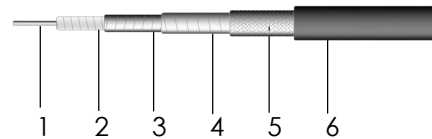
Mechanical

Bend Radius (installation):	20.0mm
Bend Radius (repeated):	50.0mm
Weight:	50g/m

Environmental

Temperature: -55~+165°C

Construction



No.	Name	Size (mm)	Material
1	Center Conductor	1.45	Silver-plated copper
2	Dielectric	4.00	Low density PTFE
3	Outer conductor	4.20	Silver Plated Copper Foil
4	Protective layer	4.25	PET
5	Outer shield	4.75	Silver-plated copper
6	Jacket	5.20	Gray FEP

Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	2	4	6	8	10	12	14	16	18	26.5
Attenuation*1 (dB/100m)	12.5	16.5	23.0	32.7	46.6	57.4	66.6	74.8	82.3	89.3	95.8	101.9	125.2
Average Power*2 (W)	1608	1305	875	615	431	350	302	268	244	225	210	197	160

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m) = $1.168470 * \sqrt{F \text{ (MHz)}} + 0.000550 * F \text{ (MHz)}$

Calculate Connector Attenuation: Attenuation (dB) = $0.03 * \sqrt{F \text{ (GHz)}}$

