



WA500

Ultra Low Loss & Phase Stable

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

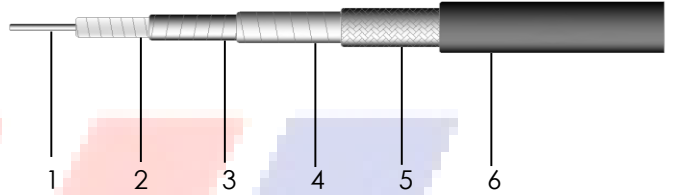
Mechanical

Bend Radius (installation):	26.0mm
Bend Radius (repeated):	52.0mm
Weight:	67g/m

Environmental

Temperature: -55~+165°C

Construction



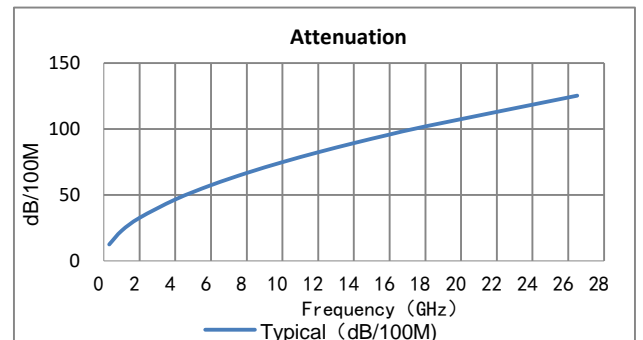
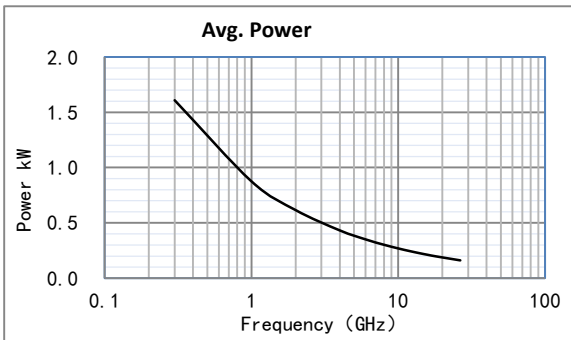
Construction Specification

Description	Size (mm)	Tol.	Materials
1 Center conductor	1.45	±0.03	Silver Plated Copper
2 Dielectric	4.00	±0.05	LD PTFE
3 Outer conductor	4.20	±0.05	Silver Plated Copper Foil
4 Protective layer	4.25	±0.05	PET
5 Outer shield	4.75	±0.10	Silver Plated Copper
6 Jacket	5.20	±0.15	Gray FEP

Attenuation (Typical @25°C&VSWR=1.0) & Power (VSWR=1.0;40°C;Sea Level)

Frequency MHz	300	1000	2000	4000	6000	8000	10000	12000	14000	16000	18000	26500
dB/100 m	12.5	23.0	32.7	46.6	57.4	66.6	74.8	82.3	89.3	95.8	101.9	125.2
Avg. Power kW	1.608	0.875	0.615	0.431	0.350	0.302	0.268	0.244	0.225	0.210	0.197	0.160
	K1= 0.7156867					K2= 0.0003280						

Calculate Attenuation = $K1 \cdot \sqrt{FMHz} + K2 \cdot FMHz$





How To Order

WA500-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in millimeter

Examples:

To order a QA500 cable assembly, DC-26.5GHz, SMA male to SMA female, 800 millimeter, specify WA500-26.5-SSF-800.

Connector naming rules:

3 - 3.5mm (26.5GHz, VSWR 1.3)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

Mating Connector

WCK-MG-WA500-1

2.92mm male, Stainless steel

WC3-MG-WA500-2

3.5mm male, Stainless steel

WC3-FG-WA500-2

3.5mm female, Stainless steel

WCS-MG-WA500-2

3.5mm male, Stainless steel

WCS-MRG-WA500-2

SMA male, Right angle, Stainless steel

WCS-FG-WA500-2

SMA female, Stainless steel

WCS-FHG-WA500-1

SMA female, Bulk head, Stainless steel

WCN-MG-WA500-4

N male, Stainless steel

WCN-MRG-WA500-1

N male, Right angle, Stainless steel

WCN-FG-WA500-1

N female, Stainless steel

WCT-MG-WA500-2

TNC male, Stainless steel

