

# MaxGain® 300

High Performance Microwave Cable Assemblies



MaxGain® Assemblies are high-performance, ultra-low-loss microwave coaxial cables. Built with our unique spiral outer conductor technology, this light-weight cable is a reliable, high frequency interconnect solution.

## Features

- Optimized for lowest attenuation at 18 GHz
- Ultra stable insertion loss, phase and VSWR with flexing
- Flexible, low minimum bend radius
- Superior shielding effectiveness (>90 dB)

## Specifications

 Impedance  
50 Ohms

 Op Temp  
-67 to +302°F  
-55 to +150°C

### Units

Diameter	in (mm)	0.310 (7.88)
Weight	lb/ft (kg/m)	0.093 (0.140)
Minimum Bend Radius	in (mm)	1.75 (44.5)
Maximum Frequency	GHz	18
Velocity of Propagation	%	81
Capacitance	pF/ft (pF/m)	24.8 (81.2)
Delay	ns/ft (ns/m)	1.25 (4.10)
Shielding	dB	-90

### Attenuation

	dB/ft	dB/m
12.0 GHz	0.16	0.52
18.0 GHz	0.22	0.72

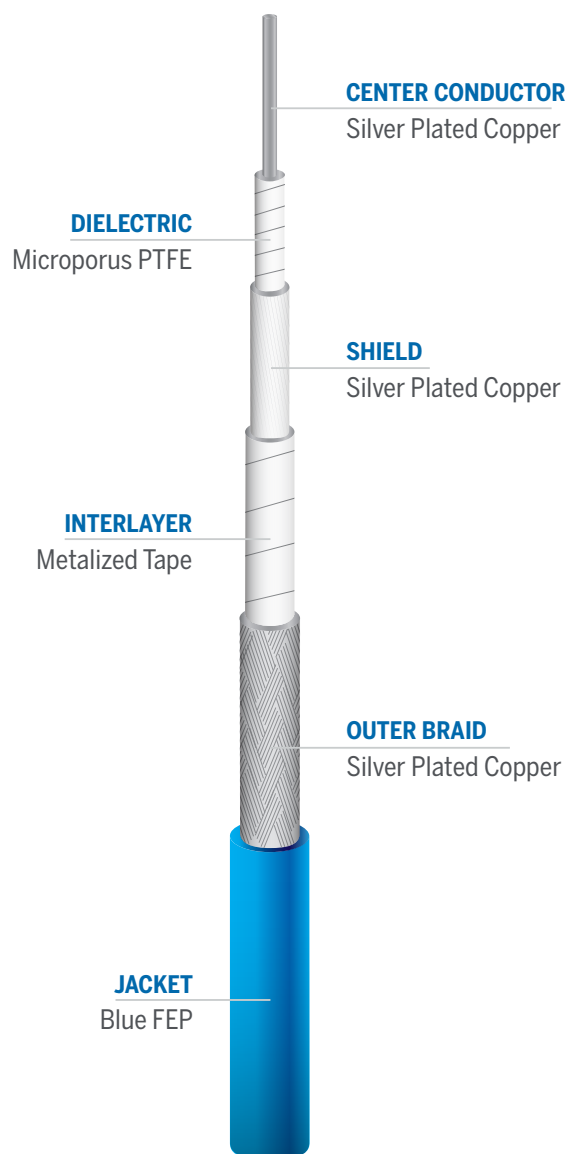
## Calculation

$$IL = (K1 \times \sqrt{f} + K2 \times f) \times \frac{\text{Cable Length}}{\text{Length}} + \text{Connector 1 Loss} + \text{Connector 2 Loss}$$

Cable Insertion Loss  
f = Frequency (MHz)

Use **K** values with  
matching length unit

K values	dB/ft	dB/m
K1	0.0014393	0.0046174
K2	0.0000015	0.0000047



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## Ordering Guide

Available for cable assembly only

**MG300**   **- CODE**   **CODE -**   **XX.X**   **M**

- Connector A   Connector B -   Length   Units of measure  
M - Meters  
F - Feet

Connector Code	Description
NM	N Male
NF	N Female
TM	TNC Male
TF	TNC Female
SM	SMAM
SF	SMAF



Global manufacturing  
capability: US, and Asia.



Heritage—in the air and on the ground,  
thousands of assemblies built over decades.



Assembled and tested assemblies  
provide assured performance.

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