

Commercial Space Line

MaxGain[®] 200

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

- Sold as cable assemblies
- Low outgassing materials per ASTM E595
- Class 100,000 clean room manufacturing
- Vented connectors, if applicable
- Optimized for lowest attenuation
- Ultra stable performance with flexure
- Superior shielding effectiveness (>90 dB)
- Radiation Resistance: 30 MRads

Specifications

Ω Impedance
50 Ohms

Op Temp
-67 to +302°F
-55 to +150°C

	Units	
Diameter	in (mm)	0.201 (5.10)
Weight	lb/ft (g/m)	0.037 (55)
Minimum Bend Radius	in (mm)	1.25 (31.8)
Maximum Frequency	GHz	30
Velocity of Propagation	%	80
Capacitance	pF/ft (pF/m)	25.40 (83.3)
Delay	ns/ft (ns/m)	1.27 (4.17)
Shielding	dB	>90

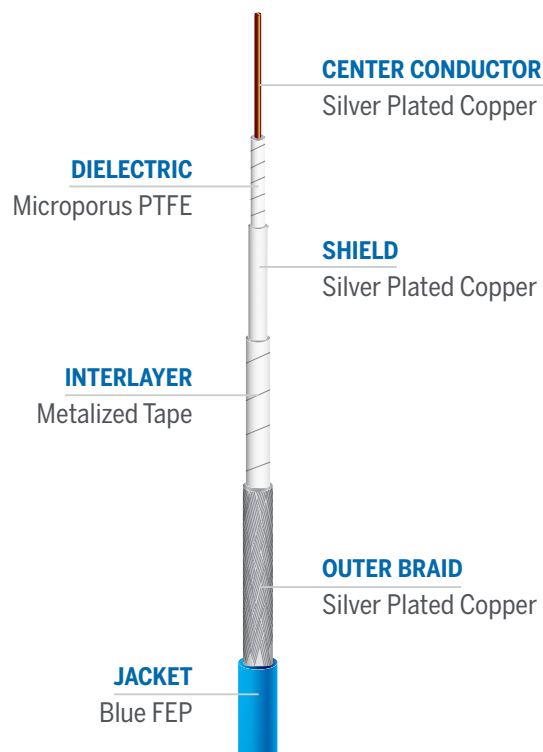
Calculation

$$IL = (K1 \times v(f) + K2 \times f) \times \text{Cable Length} + \text{Connector Loss}$$

Cable Insertion Loss
f = Frequency (MHz)

Use K values with
matching length unit

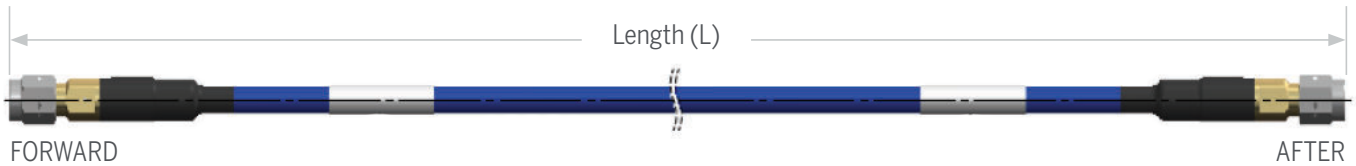
K values	dB/ft	dB/m
K1	0.2461	0.807454
K2	0.000139	0.000456



Insertion loss & VSWR

Stock Code	Max. Insertion Loss in dB @ 30GHz	Max. VSWR @ 30GHz
IE-00409-01	1.43	1.35
IE-00409-02	2.31	1.35
IE-00409-03	4.07	1.35
IE-00409-04	4.95	1.35
	Max. Insertion Loss in dB @ 22GHz	Max. VSWR @ 22GHz
IE-00410-01	1.03	1.35
IE-00410-02	1.76	1.35
IE-00410-03	3.21	1.35
IE-00410-04	3.94	1.35

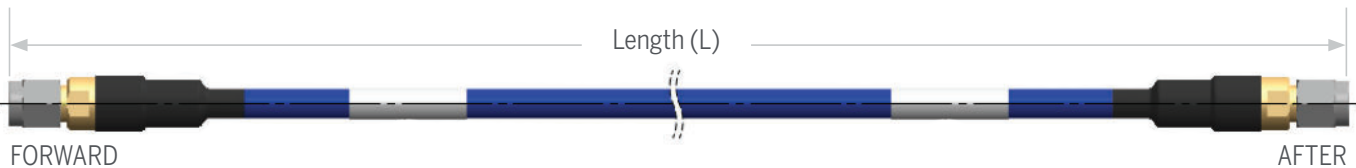
Ordering Guide



MGS200 - **SP013** **SP013** - **XX.X** **MM**
 Forward Connector After Connector Length Units of measure
 MM - Milimeters

Stock Code	Part-Number	Length (L) in mm
IE-00409-01	MGS200-KMKM-0.5M	500
IE-00409-02	MGS200-KMKM-1.0M	1000
IE-00409-03	MGS200-KMKM-2.0M	2000
IE-00409-04	MGS200-KMKM-2.5M	2500

Connector Code	Description	Connector Body	Center Contact	Connector Loss (per pair)
SP013	Type K (M) Straight	Stainless Steel, Passivated	Beryllium Copper, Gold Plated	0.06 x v _f (GHz)




MGS200 - **SP018** **SP018** - **XX.X** **MM**
 Forward Connector After Connector Length Units of measure
 MM - Milimeters

Stock Code	Part-Number	Length (L) in mm
IE-00410-01	MGS200-SMSM-0.5M	500
IE-00410-02	MGS200-SMSM-1.0M	1000
IE-00410-03	MGS200-SMSM-2.0M	2000
IE-00410-04	MGS200-SMSM-2.5M	2500

Connector Code	Description	Connector Body	Center Contact	Connector Loss (per pair)
SP018	Type SMA (M) Straight	Stainless Steel, Passivated	Beryllium Copper, Gold Plated	0.06 x v _f (GHz)


 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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