

Commercial Space Line

MaxGain® 130

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

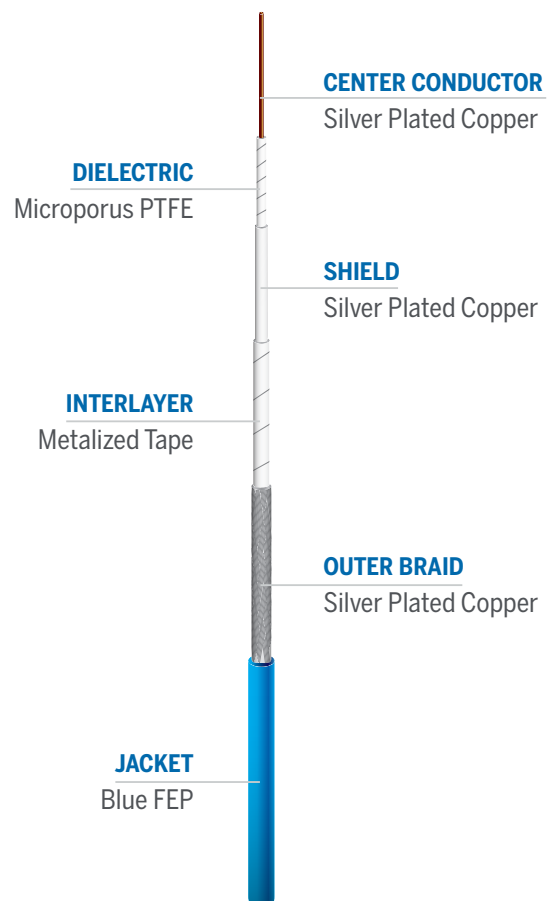
Specifications

Ω Impedance
50 Ohms

Op Temp
-67 to +302°F
-55 to +150°C

Units

	Units	
Diameter	in (mm)	0.130 (3.30)
Weight	lb/ft (g/m)	0.018 (27)
Minimum Bend Radius	in (mm)	0.625 (16)
Maximum Frequency	GHz	53
Velocity of Propagation	%	80
Capacitance	pF/ft (pF/m)	25.4 (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	0.437597	1.435756
K2	0.000146	0.000479

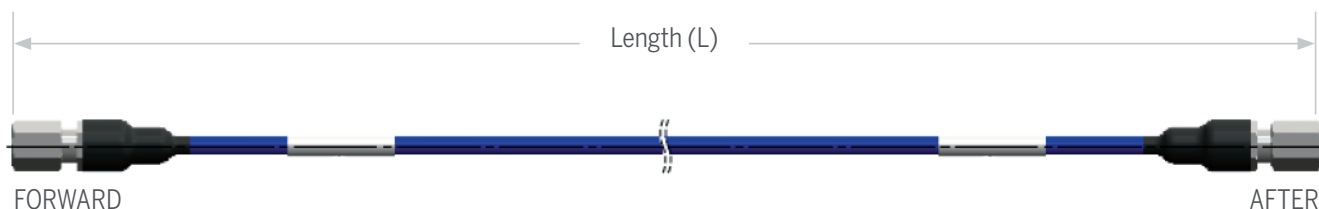
Insertion loss & VSWR @ 50GHz

Stock Code	Max. Insertion Loss in dB	Max. VSWR
IE-00406-01	1.87	1.40
IE-00406-02	2.64	1.40
IE-00406-03	4.62	1.40
IE-00406-04	6.60	1.40

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Ordering Guide



MGS130 - **SP014** **SP014** - **XX.X** **MM**

Forward Connector After Connector Length Units of measure
MM - Millimeters

Stock Code	Part-Number	Length (L) in mm
IE-00406-01	MGS130-2.4M2.4M-0.3M	300
IE-00406-02	MGS130-2.4M2.4M-0.5M	500
IE-00406-03	MGS130-2.4M2.4M-1.0M	1000
IE-00406-04	MGS130-2.4M2.4M-1.5M	1500

Connector Code	Description	Connector Body	Center Contact	Connector Loss (per pair)
SP014	Type 2.4mm (M) Straight	Stainless Steel, Passivated	Beryllium Copper, Gold Plated	0.08 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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