Product Data Sheet

I402 Semi Flexible Microwave Cable – 0.141” Diameter

I405 Semi Flexible Microwave Cable – 0.085” Diameter

Typical Applications – Defence / Aerospace / Test & Measurement

GENERAL DESCRIPTION

A lighter, more flexible alternative to Semi Rigid which enables cable to be flexed. Although there is a slightly reduced performance compared with Semi Rigid, it benefits from being able to use standard semi-rigid cable connectors.

Similar to TFLEX 402/405, The Spiral Strip Shield coaxial cables are flexible alternatives to semi-rigid coax, and the unique shielding configuration offers a cost effective, low attenuation option. The use of strip/round braid composite shields results in low transfer impedance levels. The 50 ohm constructions exhibit the same attenuation characteristics as the M17/130-RG402 and M17/133-RG405 cables. All The Spiral Strip Shield coaxial cables have VSWR characteristics that meet or exceed similar size flexible constructions. I402 and I405 have been designed with diameters over the outer braids of .141” and .086”.

An overall FEP jacket is resistant to oil and chemicals. The cable is either unmarked or surface printed eliminating a marker tape that may cause problems in termination. Without the marker tape, an improved level of adhesion exists between the braided core and the jacket that allows ease of termination with short length assemblies.

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Physical Structure		I405		I402	
Centre Conductor	Material	SCCS		SCCS	
	Structure	Solid		Solid	
	Diameter	0.51 mm	0.0201 inch	0.92 mm	0.036 inch
Dielectric	Solid PTFE	1.63 mm	0.064 inch	2.97 mm	0.117 inch
Inner shield	Flat Silver Plated Copper Strip	1.80 mm	0.071 inch	3.25 mm	0.128 inch
Outer shield	Silver Plated Copper Wire	2.18 mm	0.086 inch	3.58 mm	0.141 inch
Jacket	FEP	2.64 mm	0.104 inch	4.14 mm	0.163 inch
	Weight	19.1 Kg/Km	5.8 Kg/1000ft	43.6 Kg/Km	13.3 Kg/1000ft
Temperature Range (℃)		-55 ~ +200℃		-55 ~ +200℃	
Minimum Bend Radius		12.7 mm	0.5 inch	20.3 mm	0.8 inch

Electrical Data	I405		I402	
Impedance (Ohms)	50 Ω		50 Ω	
Capacitance (pF/ft.)	96.5 pF/M	29.4 pF/ft	96.5 pF/M	29.4 pF/ft
Velocity of Propagation (%)	70 %		70 %	
Shielding Effectiveness	> - 110dB		> - 110dB	

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Attenuation and Power	I402

Frequency Ghz	Max. Attenuation dB/m	Max. Power (watt)
1	0.41	373
3	0.74	215
5	0.98	167
10	1.47	118
15	1.87	96
18	2.10	88
20	2.24	83

Attenuation and Power	I405

Frequency Ghz	Max. Attenuation dB/m	Max. Power (watt)
1	0.75	140
3	1.34	81
5	1.75	63
10	2.56	44
15	3.22	36
18	3.57	33
20	3.80	31