SM Series Cable

The SM Series offers a flexible alternative to semi-rigid cable, employing the same connectors and assembly tooling used for .086 and .141 versions. This allows designers to bypass the cumbersome and costly step of fabricating three dimensional drawings, for significant cost savings and accelerated time to market. This solution is ideal for applications such as military ECM and guidance systems, commercial antennas, communications applications, and anywhere compact or densely-spaced coaxial interconnects are needed.

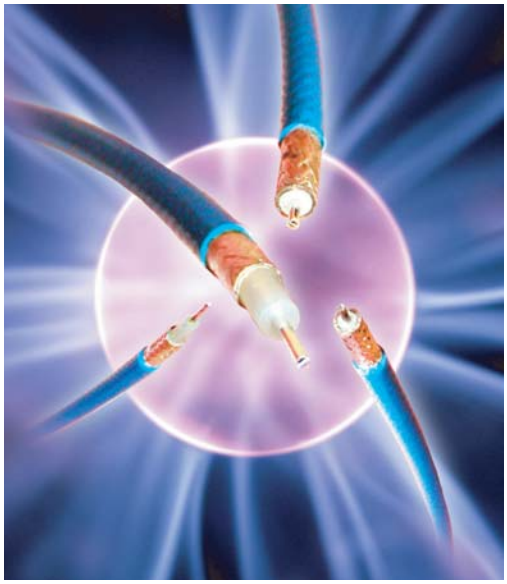
CABLE PROPERTIES

Mechanical Properties

	SM405	SM402
Jacket O.D. (in)	.100	.161
Round Braid O.D. (in)	.083	.141
Helical Braid O.D. (in)	.066	.124
Dielectric O.D. (in)	.060	.116
Center Conductor O.D. (in)	.020	.036
Center Conductor Type	Stranded	SPCS
Inside Min Bend Radius (in)	.150	.250
Operating Temperature (°C)	-65/125	-65/125
Weight (lbs/ft)	.015	.033

Electrical Properties

Impedance (ohms)	50	50
Capacitance (pf/ft)	29.4	29.4
Inductance (nH/ft)	71	71
Shielding Effectiveness (dB)	>100	>100
Cut Off Frequency (GHz)	60	34
Velocity of Propagation	70%	70%
Breakdown Voltage (KV)	>2	>5
Max Structural VSWR	1.20:1	1.20:1



CABLE CONSTRUCTION

The SM Series uses silver plated inner and outer conductors for low attenuation. The solid PTFE dielectrics and FEP jackets provide a -65 to +125 degrees C temperature range. The outer shield construction consists of a helically wrapped braid combined with a second woven round braid to provide >100 dB of shielding effectiveness.

Semflex ISO 9001

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Attenuation (dB/100 ft)

GHz		SM405	SM402
.5	Guaranteed Max	14.64	7.94
1		21.06	11.59
2		30.49	17.12
6		55.88	32.79
12		83.28	50.73
18		106.00	66.23
*k1		**19.85**	**10.35**
*k2		**1.21**	**1.24**

Average Power (KW)

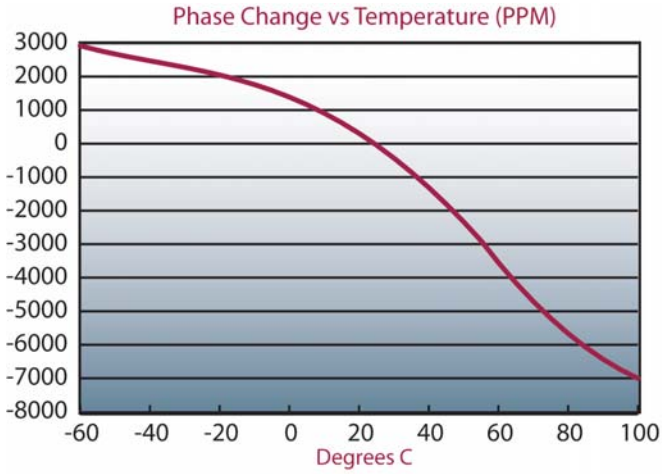
.5	Power Rating	.18	.92
1		.13	.62
2		.09	.42
6		.05	.22
12		.04	.15
18		.03	.12

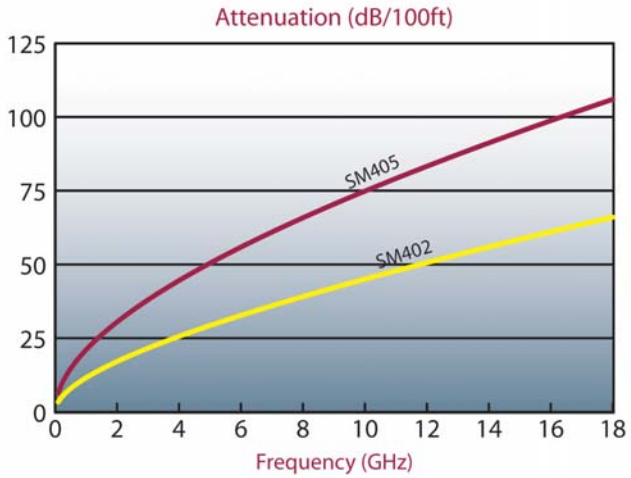
For RF and MW applications requiring interconnects for:

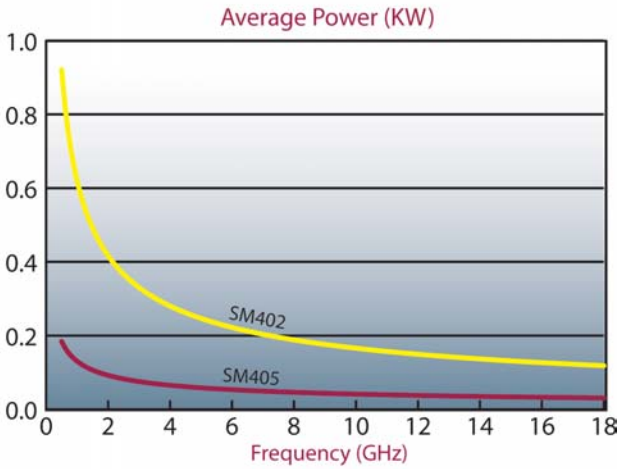
- ***Semi-rigid replacement***
- ***Military and commercial applications***
- ***Densely packed cable systems***
- ***Communication systems***
- ***Commercial antennas***

Cable Cross Reference

Semflex	Replacement
SM405	.086 Semi-rigid, TFlex-405, MF405, SS405 EZ Flex 405, Maxflex .086
SM402	.141 Semi-rigid, TFlex-402, MF402, SS402 EZ Flex 402, Maxflex .141







* Attenuation at any frequency

$$= \left(k1 \times \sqrt{freq(GHz)}\right) + \left(k2 \times freq(GHz)\right)$$

"The difference starts with the cable..."

Vital Links™ Performance Quality Service