

# High performance & cost effective Microwave cable

## Axowave™ AW2.2

### ADVANTAGES

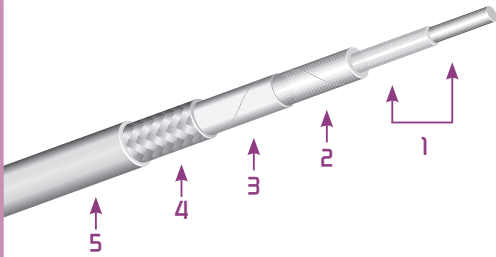
- > Excellent attenuation values
- > Temperature rating: -65°C / +155°C
- > Small diameter: 2.2 mm
- > Approximate weight: 12 g/m
- > Designed and manufactured by using a cost effective process
- > Suitable to all microwave transmissions
- > Other size microwave cables available on request
- > Cabling by using SMA connector or other on request
- > Integration of all Axon' components: conductor, Celloflon® dielectric, shielding tape and braid
- > Integration of all manufacturing steps including conductors
- > Aerospace application heritage

[www.axon-cable.com](http://www.axon-cable.com)

**axon'**  
cable & interconnect



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## Construction

1. Core	Inner conductor	Solid silver plated copper	Ø0.51 mm
	Dielectric	Celloflon® (expanded PTFE)	-
2. Taped shield		Silver plated copper	-
3. Separation tape		Polyester tape	-
4. Braided shield		Silver plated copper	-
5. Outer jacket		FEP	Ø2.2 mm

## Characteristics

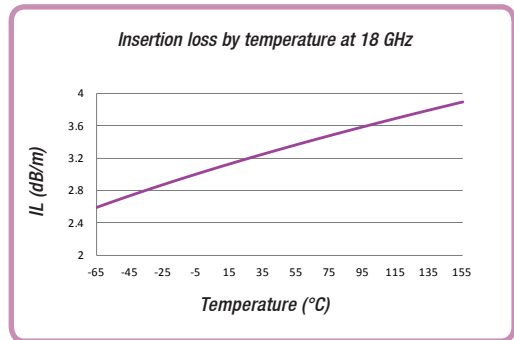
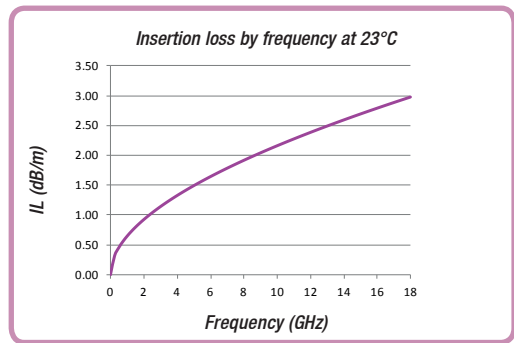
Insertion loss up to 18 GHz	3.0 dB/m max.
Characteristic impedance	50 ±2 Ω
Capacitance	87 pF/m
Velocity of propagation	77 %
Nominal phase	1555 °/GHz/m
Cut off frequency	70 GHz
Shielding efficiency at 1 GHz	-100 dB max.
VSWR (DC at 18 GHz)	1.15 max.
Insertion loss stability after bending at 18GHz (R=30 mm)	0.1 dB max.
Phase stability after bending (R=30mm) at 18GHz (3 turns)	9° max.
Phase stability vs temperature (-65°C / + 155°C)	2.2 °/GHz/m max.

## Calculation of insertion loss

Frequency (GHz)      Max insertion loss (dB/m)

$$\alpha_{\max.} (F) = 0.63 \times \sqrt{F} + 0.017 \times F$$

1	0.65
2	0.95
4	1.35
6	1.65
8	1.95
12	2.40
18	3.00



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