

SPUMA

The flexible low loss standard



Applications

- Industrial
- Railway
- Defence
- Communication

Features and benefits

- Very low loss up to 6 GHz
- High screening effectiveness
- LSFHT™ (flame resistant) type
- Excellent return loss (VSWR)

SPUMA

The SPUMA product family provides flexible and halogen free cable types and stands for its extremely low loss. With a screening effectiveness > 90 dB over the whole operating frequency range, as well as a tight bending radius, is a wide application range covered. These cables offer excellent electrical performance, especially an outstanding return loss (VSWR).

SPUMA cables are designed for applications up to 6 GHz and offer great opportunities in applications like Industrial, Railway, Defence and Communication.

Product portfolio

Description	Item no.	Outer diameter mm (in)	Jacket	Description
SPUMA_195	84151727	4.95 (0.195)	PE	
SPUMA_240	84151737	6.15 (0.240)	PE	
SPUMA_400	84102703	10.25 (0.405)	PE	
SPUMA_400-FR	84040210	10.25 (0.405)	LSFH™	UL AWM Style 1354
SPUMA_400-FR-01	84132035	10.25 (0.405)	LSFH™	Railway approved: EN 45545, DIN 5510, NF F 16-101, NFPA-130
SPUMA_600	84151738	14.99 (0.590)	PE	

Cable design



Construction

	SPUMA_195	SPUMA_240	SPUMA_400	SPUMA_400-FR/01	SPUMA_600
1 Centre conductor	Cu wire	Cu wire	Al/Cu wire	Al/Cu wire	Al/Cu wire
2 Dielectric	foamed PE				
3 Inner shield	Al-PES foil				
4 Outer shield	tin plated copper braid				
5 Jacket	PE	PE	PE	LSFH™	PE

Electrical cable data

Electrical data	SPUMA_195	SPUMA_240	SPUMA_400-xx	SPUMA_600
Impedance	50 Ω +/- 2			
Operating frequency	6 GHz			
Capacitance	83 pF/m 25.3 pF/ft	79 pF/m 24.1 pF/ft	78 pF/m 23.8 pF/ft	78 pF/m 23.8 pF/ft
Velocity of propagation	80%	84%	85%	85%
Signal delay	4.17 ns/m 1.27 ns/ft	3.97 ns/m 1.21 ns/ft	3.9 ns/m 1.19 ns/ft	3.9 ns/m 1.19 ns/ft
Min. screening effectiveness up to 6 GHz	> 90 dB			
Attenuation @ 6 GHz	1 dB/m 0.305 dB/ft	0.68 dB/m 0.207 dB/ft	0.35 dB/m 0.107 dB/ft	0.24 dB/m 0.073 dB/ft

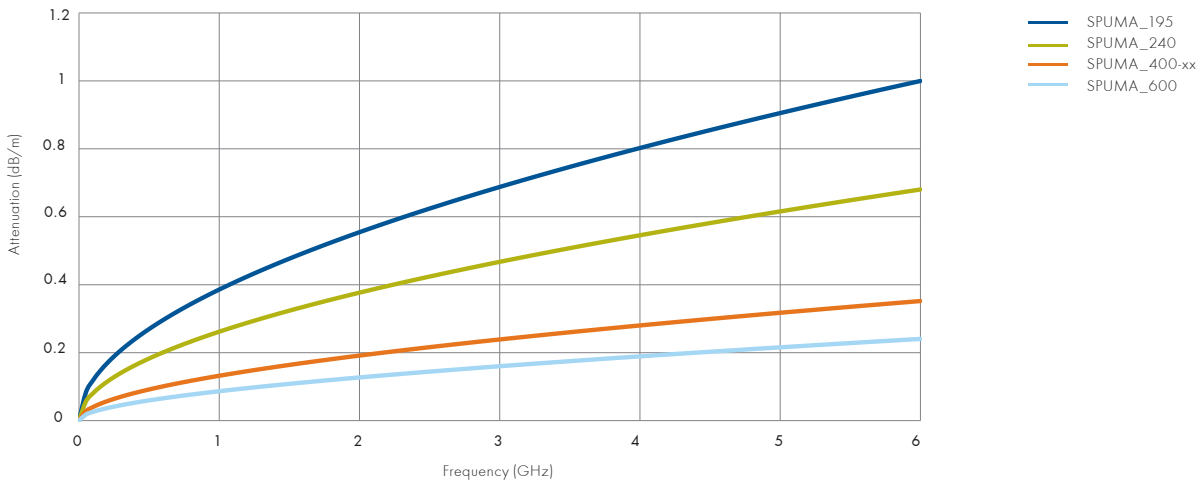
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General cable data

General data	SPUMA_195	SPUMA_240	SPUMA_400-xx	SPUMA_600
Bending static	12.5 mm (0.492 in)	19 mm (0.630 in)	25 mm (0.984 in)	38 mm (1.496 in)
Bending repeated	50 mm (1.969 in)	60 mm (2.362 in)	100 mm (3.937 in)	152 mm (5.984 in)
Temperature range	Operation: -40 °C to +85 °C Installation: -20 °C to +60 °C			
Halogen free	IEC 60754			
2002/95/EC (RoHS)	compliant			

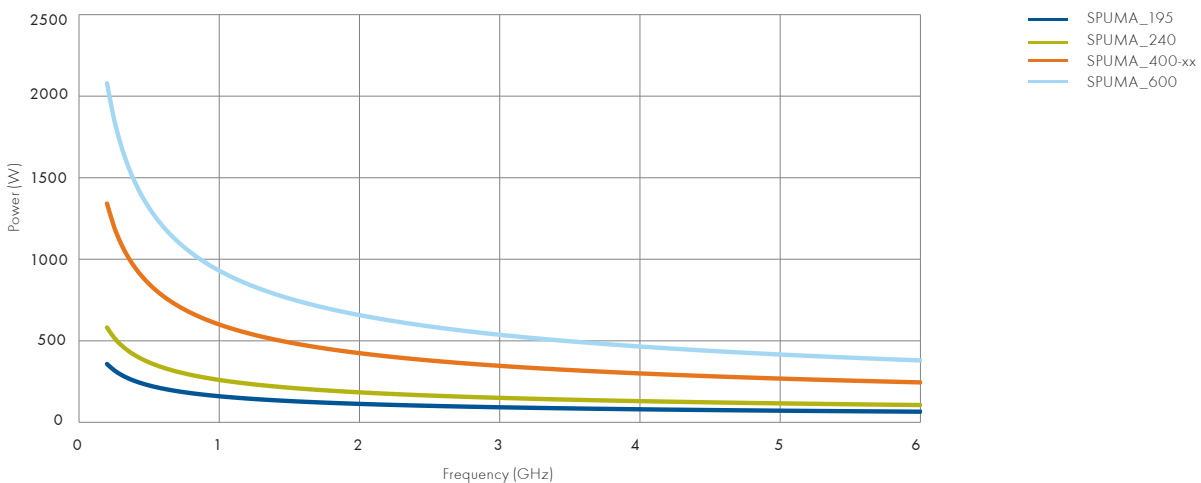
Attenuation

Typical values at 20 °C ambient temperature and sea level



CW power

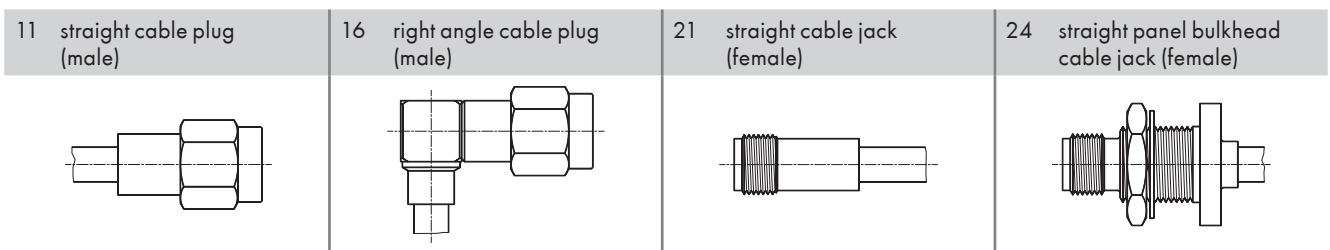
Max. values at 40 °C ambient temperature and sea level



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Connector overview

Cable (group)	7/16		BNC				N				QMA		QMA-W50			QN			SMA		TNC				TNC-R50	
	11	11	11	16	21	24	16	21	16	11	16	24	11	16	24	11	16	21	24	11	24					
SPUMA_195 (X27)																•	•					•				
SPUMA_240 (X28)	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•					•	•	•		
SPUMA_400-xx (U30)	•		•	•	•	•							•	•	•		•	•	•				•	•		
SPUMA_600 (X29)			•																							



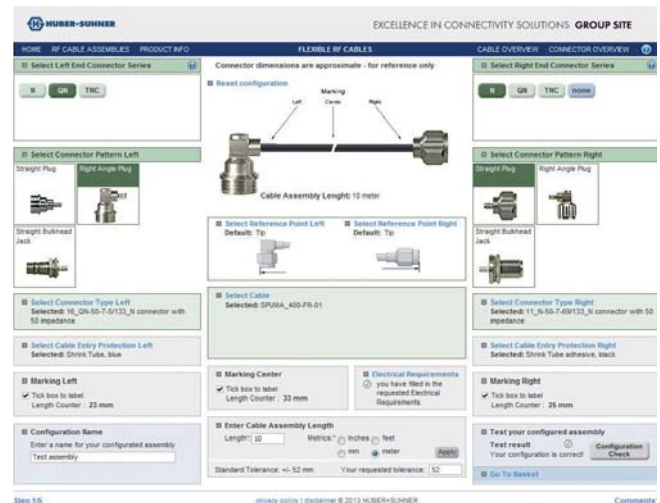
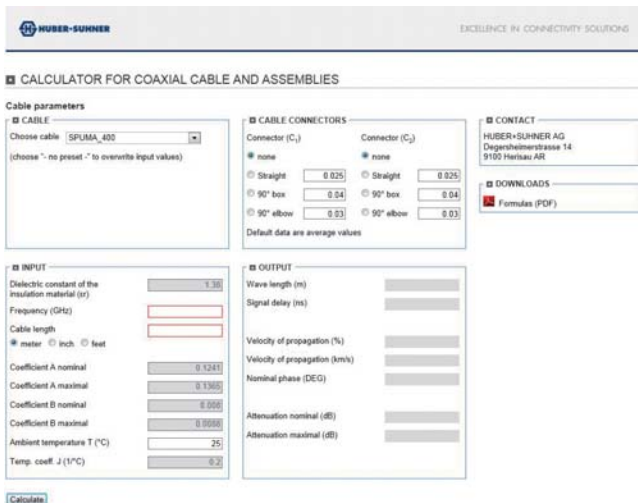
Please contact your nearest HUBER+SUHNER partner for specific connector information.

Assembly calculator and configurator

Use our online tools for fast and efficient configuration or calculation!

RF assembly calculator:
<http://rfcablecalc.hubersuhner.com>

RF assembly configurator:
<http://rfwebpcf.hubersuhner.com>



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HUBER+SUHNER is certified according to EN 9100, ISO 9001, ISO 14001, ISO/TS 16949 and IRIS.

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