

SPUMA 400

Flexible RF cable equal to LMR® 400



Applications

- Communication
- Industrial and Railway
- Defence

Features

- Very low loss
- Flexible cable
- Non-halogen (non-toxic) low smoke, flame resistant type available

Benefits

- Less attenuation
- Less price
- Excellent return loss (VSWR)

LMR® is a registered Trademark of Times Microwave Systems

SPUMA-400

Cable design



Construction

	Material	Diameter
1 Center conductor	solid copper-plated aluminum wire	2.74 mm
2 Dielectric	foamed polyethylene	7.24 mm
3 Inner shield	aluminum/PES longitudinal foil	7.4 mm
4 Outer shield	tin-plated copper braid	8.15 mm
5 Jacket	SPUMA_400: polyethylene SPUMA_400-FR: LSFH (modified polyethylene)	10.25 mm +/-0.1

Electrical characteristics

	SPUMA_400	SPUMA_400-FR
Impedance	50 Ω +/-2	
Operating frequency	6 GHz	
Capacitance	78 pF/m	
Velocity of propagation	85 %	
Signal delay	3.9 ns/m	
Insulation resistance	108 M Ω m	
Min. screening effectiveness up to 6GHz	> 90 dB	

General characteristics

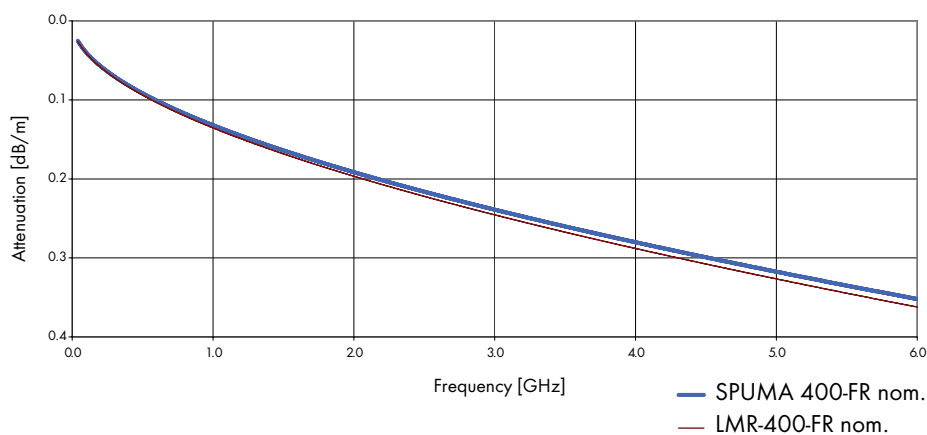
	SPUMA_400	SPUMA_400-FR
Weight	9.4 kg / 100 m	11.5 kg / 100 m
Min. bending radius	static: 25 mm repeated (for max. 50 bendings): 100 mm	
Temperature range	operation: -40 °C up to +85 °C installation: -20 °C up to +85 °C	
Railway standards	-	DIN EN 5510-2 and CEN/TS 45545 compliant
Halogen free	IEC 60754	
2002/95/EC (RoHS)	compliant	

SPUMA-400

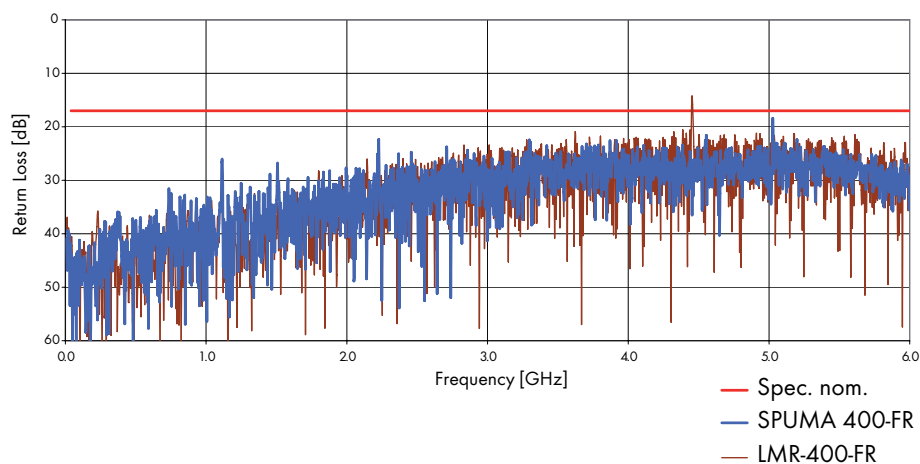
Suitable connectors

TNC:	11 TNC-50-7-16/133 N 11 TNC-50-7-18/133 N 11 TNC-R50-7-13/133 NE 16 TNC-50-7-4/133 NE 16 TNC-50-7-12/133_NE 24 TNC-R50-7-4/133 N	Return loss of assembly with straight plug and right angle connectors
		1 GHz >28 dB
		2.5 GHz >23 dB
		3.5 GHz >18 dB
		6 GHz >15 dB
N:	11 N-50-7-69/133 NE 11 N-50-7-82/133 NE 16 N-50-7-50/133 NE 16 N-50-7-77/133 N 24 N-50-7-31/133 NH	
QN:	11 QN-50-7-8/133 NH 16 QN-50-7-5/133 NH 24 QN-50-7-5/133 NH	
7/16:	24 716-50-7-8/003 -Y	

Attenuation vs. frequency (typical)



Return loss vs. frequency



SPUMA-400

Product portfolio

Description	DIN 5510	CEN/TS45545
SPUMA_400	-	-
SPUMA_400-FR-01	X	X

Railway standards

DIN 5510

Description	Test method
Flame spread, single cable	EN 60332-1-2
Smoke density	EN 61034-2
Toxicity	EN 50305, 9.2

CEN/TS 45545

Description	Test method
Flame spread, single cable	EN 60332-1-2
Flame spread, bunched cables	EN 50266-2-5
Smoke density	EN 61034-2
Toxicity	CEN/TS 45545-2, C.16.4

Assembly configurator

HUBER+SUHNER provides individual assembly solutions:

- Web-based tool
- Easy to use
- Fast configuration

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

WAIVER

It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.

HUBER+SUHNER AG
Radio Frequency Division
Degersheimerstrasse 14
9100 Herisau/Switzerland
Tel. +41 71 353 4111
Fax +41 71 353 4590
info@hubersuhner.com

84078173/01.2009