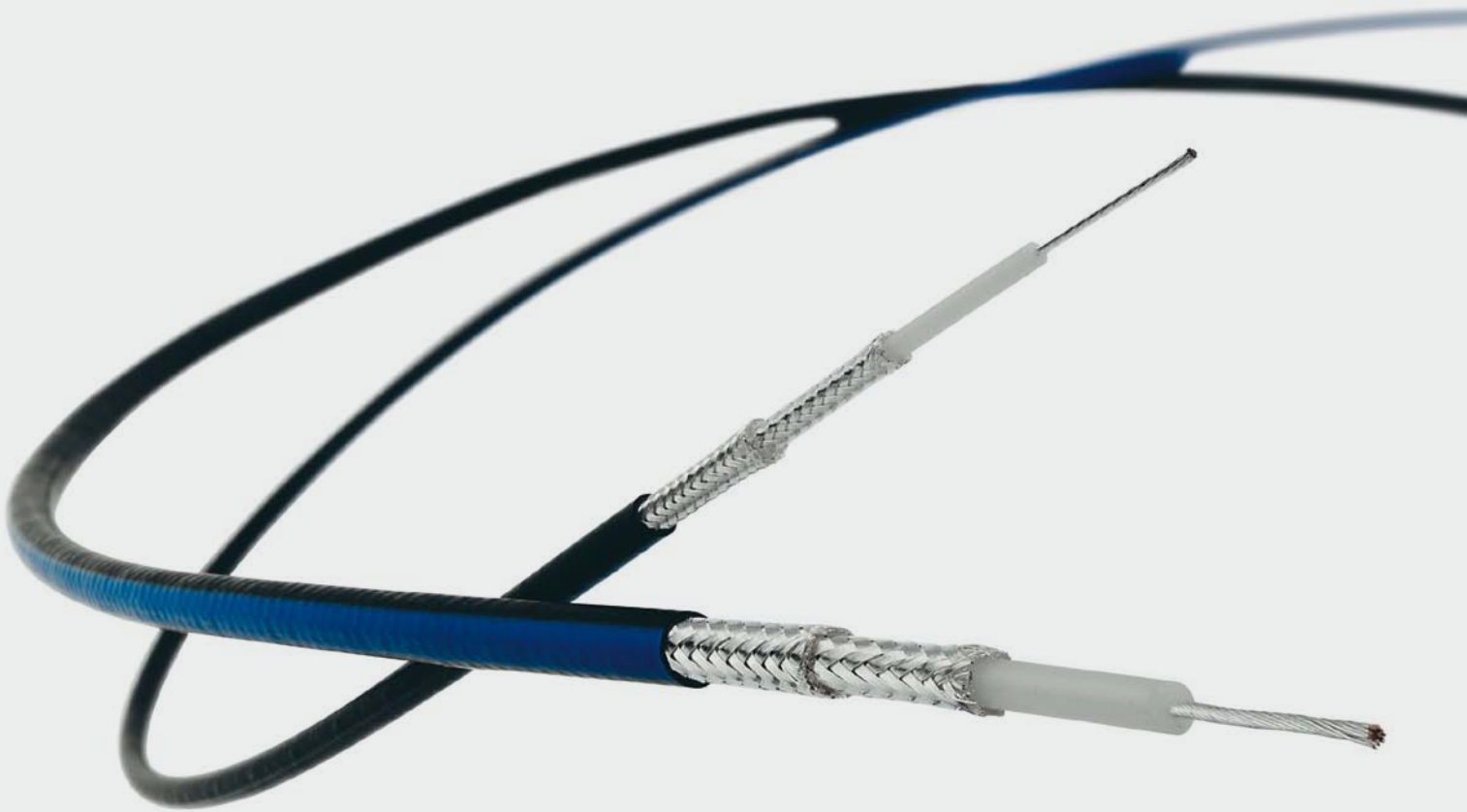
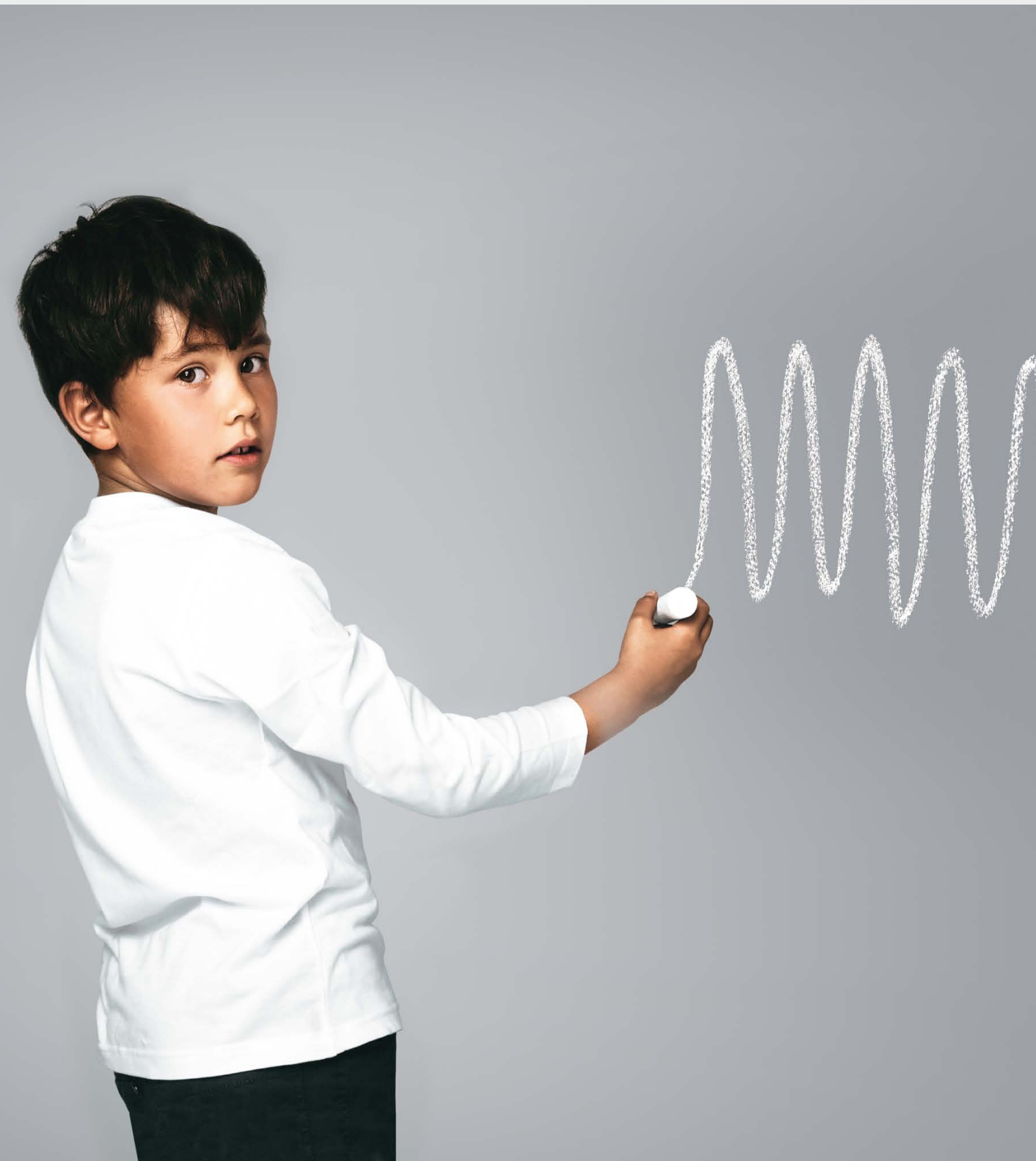


RF cables

Edition 2015



Developed for highest expectations





Your partner for system solutions

HUBER+SUHNER is a leading international producer and supplier of electrical and optical interconnectivity components and systems. Core capabilities in radio frequency, fiber optic and low frequency technology are united under a single roof. The success of the company's high-grade standard products and customised applications based on its cutting edge-know how in radio frequency and microwave technology, supported by advanced simulation processes.

Radio frequency cables

HUBER+SUHNER is offering a wide range of RF coaxial cables which are developed for highest expectations. A carefully balanced range of flexible coaxial cables provide best performance where challenging requirements arise. Our high quality cables offer excellent electrical and mechanical characteristics and are used globally in high demanding applications. Professional and extensive support in combination with a comprehensive product portfolio makes us to a leading supplier of radio frequency solutions.

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Product lines and series – overview

Foam line

The flexible low loss cable



The product series SPUMA, S and SX provide lowest attenuation, high flexibility and optimal shielding. The series with LSFH™ jacket material and the radiation cross-linked SX series with the RADOX® jacket also offer extremely high flame protection.

Product series

- S
- SPUMA
- SPUMA-FR
- SX

Benefits

- Low loss
- Excellent shielding
- High flexibility

Performance line

High temperature coax cable



The PTFE/FEP cables from our RG/K series are designed for applications at up to 200 °C and are characterised by low losses especially at high frequencies. The cables in the ENVIROFLEX® family do not contain fluorine plastics either in the dielectric or in the jacket and thus provide a robust and environmentally friendly option.

Product series

- K/RG (PTFE)
- ENVIROFLEX

Benefits

- Temperature range
- High performance
- RG standard

Standard line

High precision coax cables



Our standard line includes RG coaxial cables to MIL standards, as well as the halogenfree alternatives of the G and GX series, which are mechanically compatible with RG in use. While the G-series uses LSFH™ (low smoke free of halogen) jacket material, RADOX® additionally offers a higher temperature range, and maximum environmental resistance.

Product series

- RG (PE)
- G
- GX

Benefits

- High precision
- RG standard
- Halogen free options

Specialities



HUBER+SUHNER provides specific cables to cover special needs like low noise measurements as well as triaxial applications. UL recognised and railway approved cables complete the offer.

Product series

- Low noise
- Triax
- UL recognised cables
- RF railway cables

Benefits

- Approved cables
- Individual solution

Foam line – the flexible low loss cable

S cables



HUBER+SUHNER low loss coaxial cables with foamed PE dielectric have been carefully designed for excellent electrical performance focusing on low loss, high velocity, high power and low VSWR. These flexible coaxial cables feature greatly improved cable bending characteristics, which make them ideal for use in limited spaces and where multiple bends are required. Ideal for use in critical antenna system applications.

Features and benefits

- Low loss and low attenuation
- Excellent return loss (VSWR)
- Halogen free types
- High flexibility

SPUMA



The SPUMA product family 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.

Features and benefits

- Very low loss up to 6 GHz
- High screening effectiveness
- Non-halogen, low smoke and flame resistant types
- Excellent return loss (VSWR)

SX cables



HUBER+SUHNER cross-linking technology in combination with low loss dielectrics makes this product portfolio outstanding. Cross-linking allows the maximum application temperature of polyethylene to be increased from +80 to +105 °C. This extended range covers most applications. It allows operation in a higher power range and connectors with soldered inner conductors can be easily applied.

Features and benefits

- Low loss and low attenuation
- High temperature due to cross-linking
- HUBER+SUHNER RADOX® jacket materials
- High flame retardancy
- Low smoke and free of halogen

Line overview

Reference matrix

Series	SPUMA and S	SPUMA-FR and S	SX
Dielectric material	SPE	SPE	SPEX
Jacket material	PE	LSFH™	RADOX®
Halogen free	✓	✓	✓
Low smoke	-	✓	✓
Flame retardancy	-	✓ ✓	✓ ✓
Temperature range	✓	✓	✓ ✓
Weather resistance	✓ ✓	✓ ✓	✓ ✓
Outer diameter (approx. in mm) 50 Ω			
3	-	S_01162_D-01 S_02162_B	-
5	SPUMA_195	SPUMA_195-FR-01 S_03262_B-61	SX_03272_B-60
5.5	S_04172_D S_04272_B	S_04162_B/-60 S_04262_B-01	SX_03272_D-01 SX_04172_B-60
6	SPUMA_240	SPUMA_240-FR-01 S_04262_D-02/-09	SX_04272_D-02
8	-	S_06162_D-03	-
10	SPUMA_400	SPUMA_400-FR/-01 S_07262_BD	-
13	S_10172_B-11	SPUMA_500-FR-01 S_10162_B-11	SX_10162_B-01
15	SPUMA_600	-	-
Outer diameter (approx. in mm) 75 Ω			
3	-	S_02263	-
6	-	S_04263 S_05163-02	-
10	S_07273-01	SPUMA_400-FR-75	-

This reference matrix does not contain all cable types available. Please refers to the next pages or contact your nearest HUBER+SUHNER representative for your specific request.

Legend

PE	polyethylene
SPE	foamed Polyethylene
SPEX	foamed Polyethylene cross-linked
LSFH™	low smoke free of halogen
RADOX®	registered trade mark

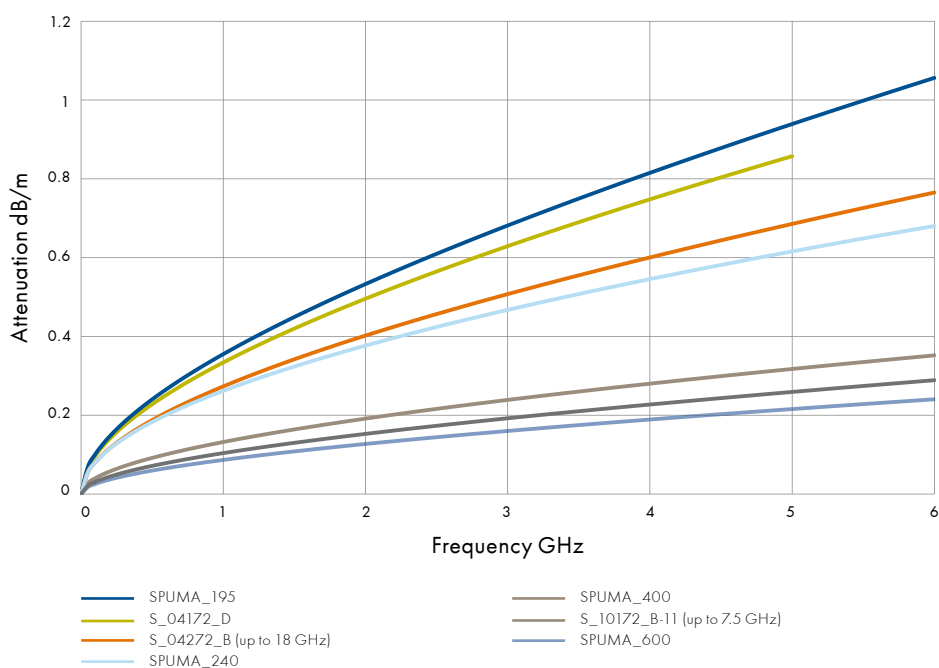
Foam line – the flexible low loss cable

SPUMA and S cables

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
S_04172_D	22511598	50	5	wire	SPE	double screen	PE	5.70	black
S_04272_B	22511622	50	18	wire	SPE	tape/braid	PE	5.50	black
S_10172_B-11	22512320	50	7.5	wire	SPE	tape/braid	PE	12.90	black
SPUMA_195	84151727	50	6	wire	SPE	tape/braid	PE	4.95	black
SPUMA_240	84151737	50	6	wire	SPE	tape/braid	PE	6.15	black
SPUMA_400	84102703	50	6	wire	SPE	tape/braid	PE	10.25	black
SPUMA_600	84151738	50	6	wire	SPE	tape/braid	PE	14.99	black

Attenuation

typical values at +20 °C ambient temperature and sea level

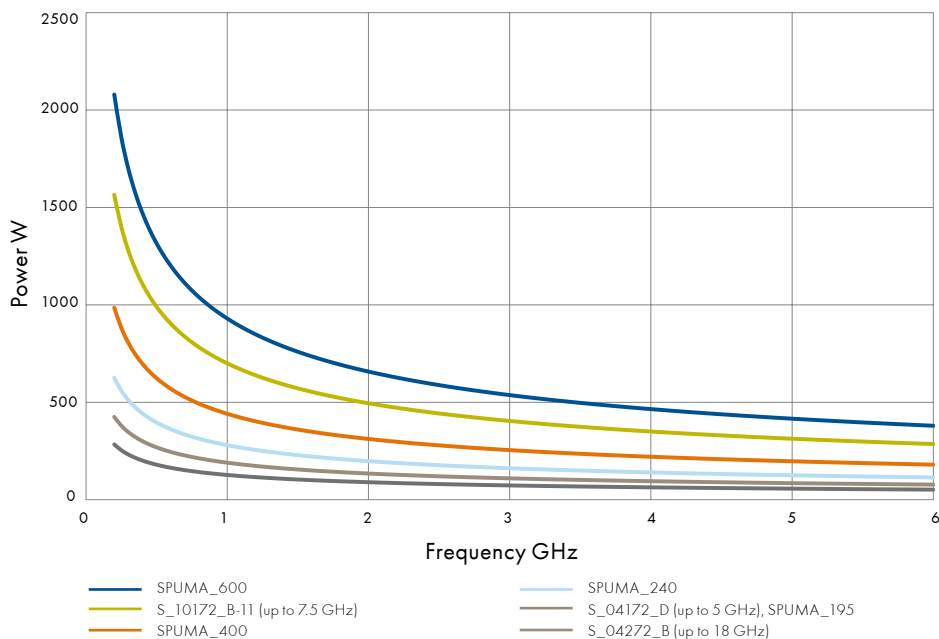


SPUMA and S series 50 Ω

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +85	0.33	0.63	-	> 81 (up to 1 GHz)	30	57	S16
-40 to +85	0.24	0.48	0.75	> 90 (up to 18 GHz)	25	90	X9
-40 to +85	0.10	0.18	0.28	> 90 (up to 7.5 GHz)	100	200	S39
-40 to +85	0.39	0.69	1.00	> 90 (up to 6 GHz)	12.5	50	X27
-40 to +85	0.26	0.47	0.68	> 90 (up to 6 GHz)	19	60	X28
-40 to +85	0.13	0.24	0.35	> 90 (up to 6 GHz)	25	100	U30
-40 to +85	0.09	0.16	0.24	> 90 (up to 6 GHz)	38	152	X29

CW power

max. values at +40 °C ambient temperature and sea level



Foam line – the flexible low loss cable

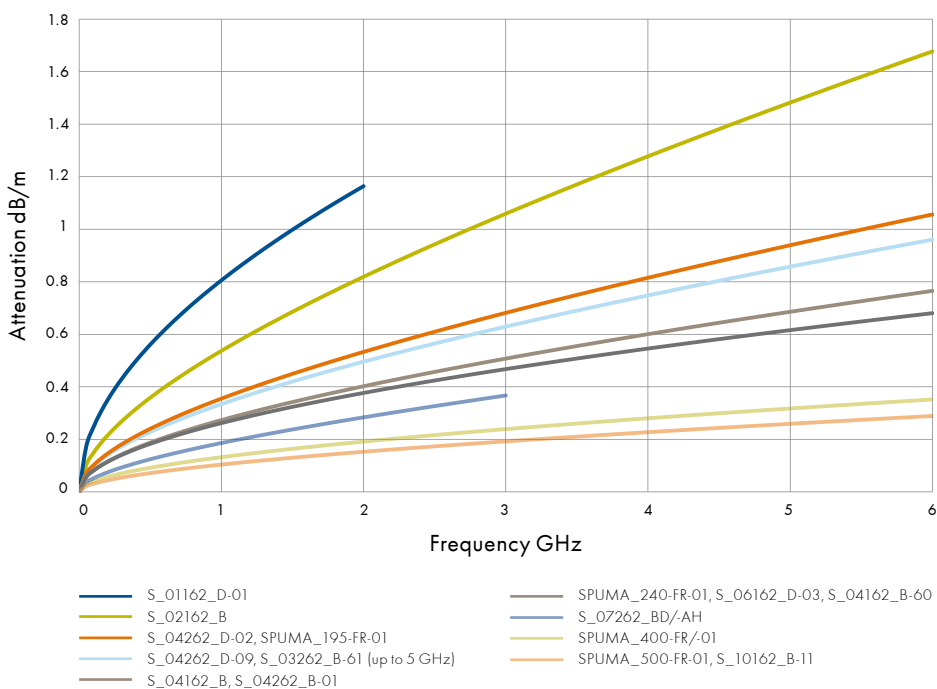
SPUMA-FR and S cables

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
S_01162_D-01	84061579	50	2	strand-07	SPE	double screen	LSFH™	2.70	black
S_02162_B	22512310	50	6	strand-07	SPE	tape/braid	LSFH™	3.15	black
S_03262_B-61 ^{a)}	84078137	50	5	wire	SPE	tape/braid	LSFH™	4.50	black
S_04162_B	84068745	50	6	wire	SPE	tape/braid	LSFH™	5.50	black
S_04162_B-60 ^{a)}	84023780	50	6	wire	SPE	tape/braid	LSFH™	5.50	black
S_04262_B-01	84000918	50	18	wire	SPE	tape/braid	LSFH™	5.50	black
S_04262_D-09	84034611	50	6	wire	SPE	double screen	LSFH™	5.70	black
S_04262_D-02	22512107	50	6	strand-19	SPE	double screen	LSFH™	6.50	black
S_06162_D-03	84061578	50	6	wire	SPE	double screen	LSFH™	7.90	black
S_07262_BD	22511767	50	3	strand-07	SPE	braid/tape/braid	LSFH™	10.80	black
S_07262_BD-AH	23023566	50	2	strand-07	SPE	braid/tape/braid	LSFH™	15.70	black
S_10162_B-11	23002145	50	7.5	wire	SPE	tape/braid	LSFH™	12.90	black
SPUMA_195-FR-01	85021562	50	6	wire	SPE	tape/braid	LSFH™	4.95	black
SPUMA_240-FR-01	85021563	50	6	wire	SPE	tape/braid	LSFH™	6.15	black
SPUMA_400-FR ^{a)}	84040210	50	6	wire	SPE	tape/braid	LSFH™	10.25	black
SPUMA_400-FR-01	84132035	50	6	wire	SPE	tape/braid	LSFH™	10.25	black
SPUMA_500-FR-01	85021564	50	6	wire	SPE	tape/braid	LSFH™	12.78	black

^{a)} UL recognised (see UL types page 50)

Attenuation

typical values at +20 °C ambient temperature and sea level

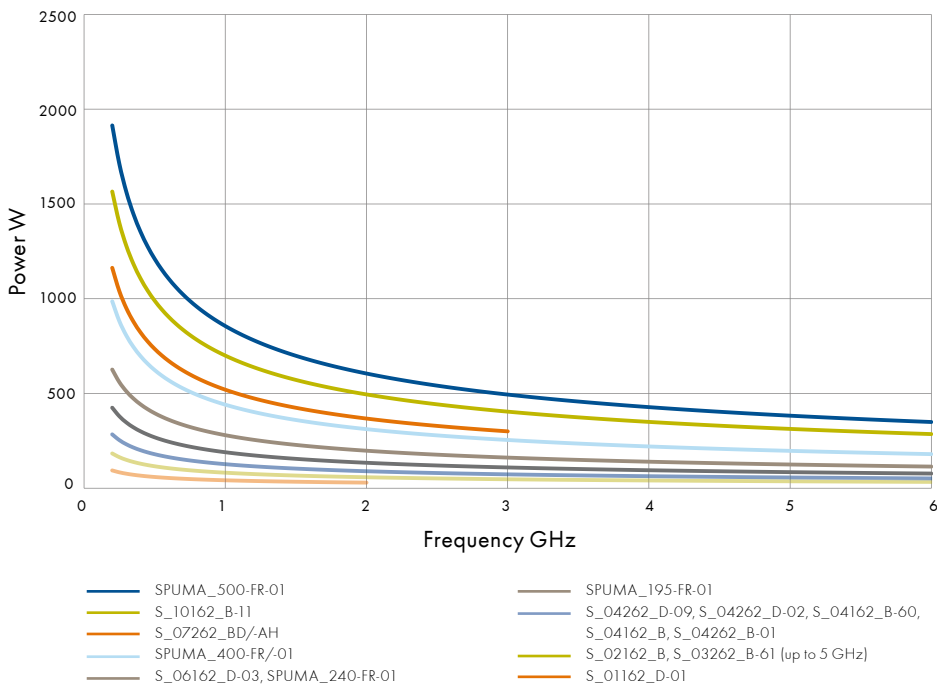


SPUMA-FR and S series 50 Ω

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +85	0.81	-	-	> 50 (up to 2 GHz)	12	26	X3
-40 to +85	0.54	1.06	1.68	> 80 (up to 6 GHz)	16	30	S9
-40 to +85	0.35	0.65	-	> 90 (up to 2 GHz)	15	40	X7
-40 to +85	0.27	0.51	0.77	> 80 (up to 2.2 GHz)	25	60	X9
-40 to +85	0.25	0.47	0.71	> 80 (up to 2.2 GHz)	25	60	X9
-40 to +85	0.24	0.48	0.75	> 90 (up to 18 GHz)	25	90	X9
-40 to +85	0.33	0.63	0.96	> 80 (up to 6 GHz)	28	58	S16
-40 to +85	0.36	0.68	1.06	> 80 (up to 6 GHz)	32	65	X8
-40 to +85	0.26	0.47	0.71	> 82 (up to 6 GHz)	40	80	S24
-40 to +85	0.19	0.37	-	> 90 (up to 3 GHz)	70	110	S32
-40 to +85	0.19	-	-	> 90 (up to 2 GHz)	90	140	S32
-40 to +85	0.10	0.18	0.28	> 90 (up to 7.5 GHz)	100	200	S39
-40 to +85	0.39	0.69	1.00	> 90 (up to 6 GHz)	12	50	X27
-40 to +85	0.26	0.47	0.68	> 90 (up to 6 GHz)	19	63	X28
-40 to +85	0.13	0.24	0.35	> 90 (up to 6 GHz)	25	100	U30
-40 to +85	0.13	0.24	0.35	> 90 (up to 6 GHz)	25	100	U30
-40 to +85	0.10	0.19	0.29	> 90 (up to 6 GHz)	31	127	X31

CW power

max. values at +40 °C ambient temperature and sea level



Foam line – the flexible low loss cable

SX series

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
SX_03272_B-60 ^{a)}	84010513	50	5	wire	SPEX	tape/braid	RADOX®	4.5	black
SX_04172_B-60 ^{a)}	84026748	50	6	wire	SPEX	tape/braid	RADOX®	5.5	black
SX_03272_D-01	22511948	50	6	wire	SPEX	double screen	RADOX®	5.40	black
SX_04272_D-02	22511926	50	6	wire	SPEX	double screen	RADOX®	5.70	black
SX_10162_B-01	84013441	50	7.5	wire	SPEX	tape/braid	LSFH™	12.90	black

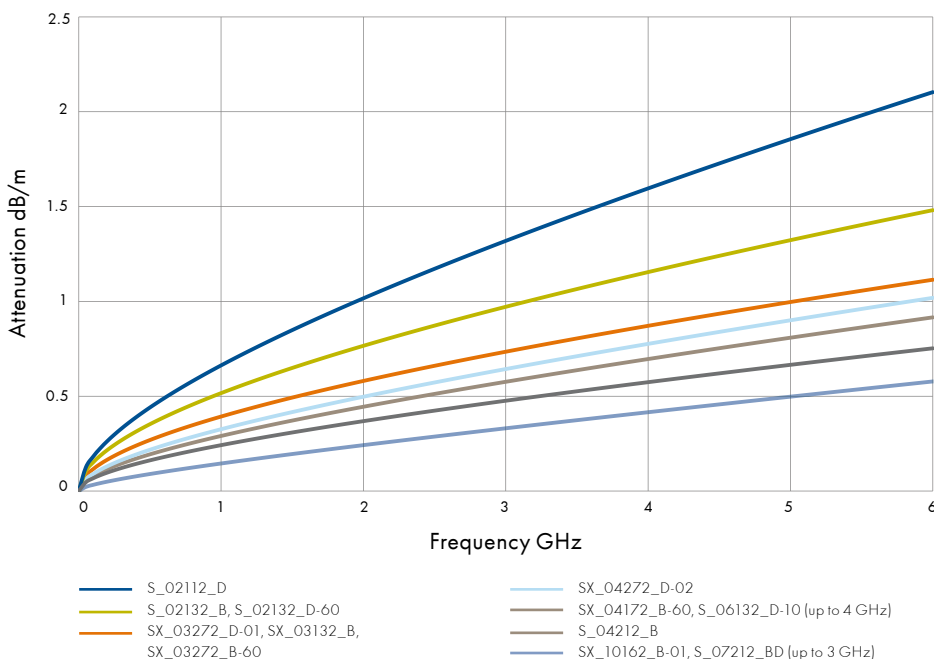
PVC and PUR cable types

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
S_02132_B	23032987	50	6	strand-07	SPE	tape/braid	PVC	3.20	black
S_02112_D	22511910	50	6	strand-19	SPE	double screen	PUR	4.5	black
S_02132_D-60 ^{a)}	84010316	50	6	wire	SPE	double screen	PVC	4.8	black
S_04212_B	22511855	50	18	wire	SPE	tape/braid	PUR	2.3	black
S_06132_D-10	22511629	50	4	strand-07	SPE	double screen	PVC	8.95	black
S_07212_BD	22511864	50	3	strand-07	SPE	braid/tape/braid	PUR	10.80	black

^{a)} UL recognised (see UL types page 50)

Attenuation

typical values at +20 °C ambient temperature and sea level



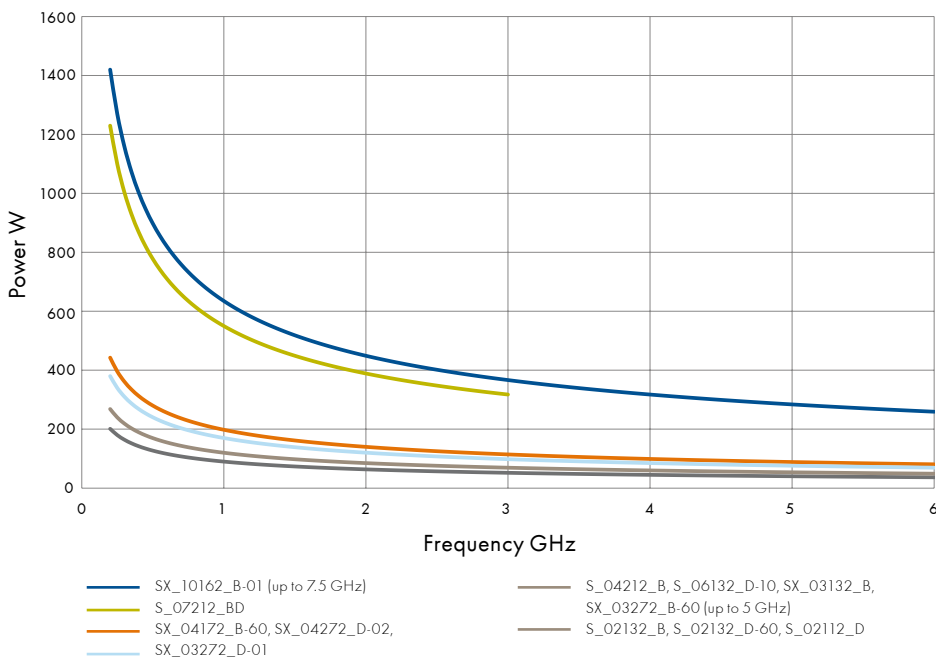
S and SX series 50 Ω

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +105	0.37	0.70	-	> 85 (up to 2 GHz)	20	40	X7
-40 to +105	0.29	0.58	0.92	> 80 (up to 2.2 GHz)	25	60	X9
-40 to +105	0.39	0.73	1.11	> 80 (up to 6 GHz)	30	60	X25
-40 to +105	0.33	0.64	1.02	> 80 (up to 6 GHz)	28	58	S16
-40 to +85	0.15	0.33	0.58	> 90 (up to 7.5 GHz)	50	60	S39

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +85	0.52	0.97	1.48	> 68 (up to 6 GHz)	16	30	S9
-40 to +85	0.66	1.32	2.10	> 81 (up to 6 GHz)	22	45	S8
-25 to +85	0.50	0.96	1.48	> 75 (up to 6 GHz)	25	48	-
-40 to +85	0.24	0.48	0.75	> 90 (up to 18 GHz)	25	90	X9
-25 to +85	0.29	0.56	-	> 80 (up to 4 GHz)	45	90	S26
-40 to +85	0.19	0.37	-	> 90 (up to 3 GHz)	110	160	S32

CW power

max. values at +40 °C ambient temperature and sea level



Foam line – the flexible low loss cable

Single screen, 75 Ω

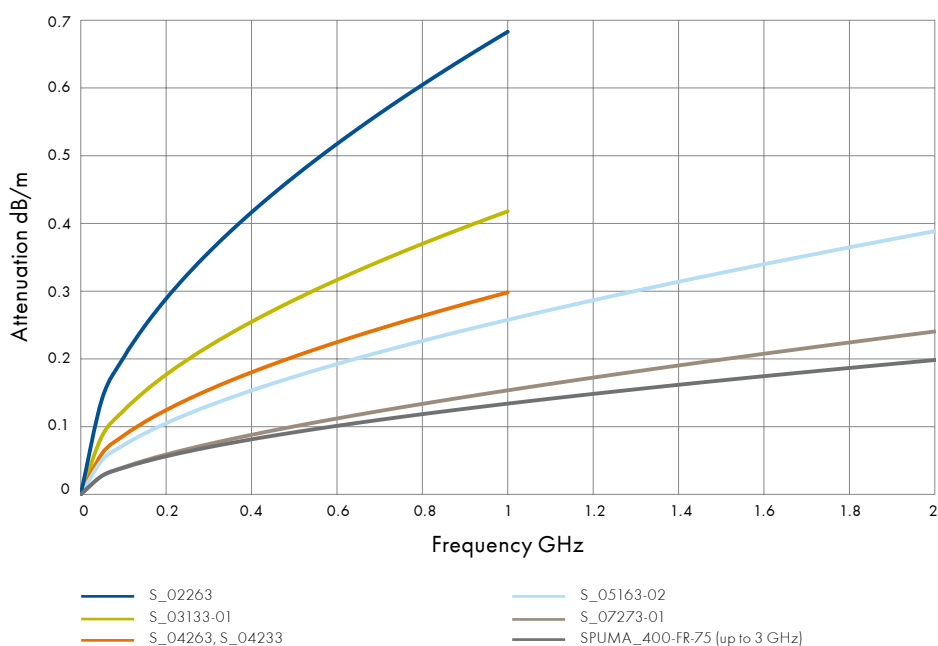
HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
S_02263	22511693	75	1	wire	SPE	single screen	LSFH™	2.55	blue
S_03133-01	22511626	75	1	wire	SPE	single screen	PVC	4.5	black
S_04263	22511856	75	1	wire	SPE	single screen	LSFH™	6.1	black
S_04233	22610020	75	1	wire	SPE	single screen	PVC	6.1	black

Double screen, 75 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
S_05163-02	23003405	75	2	wire	SPE	double screen	LSFH™	6.9	black
S_07273-01	22510550	75	2	wire	SPE	double screen	PE	10	black
SPUMA_400-FR-75	85022187	75	3	wire	SPE	tape/braid	LSFH™	10.25	black

Attenuation

typical values at +20 °C ambient temperature and sea level

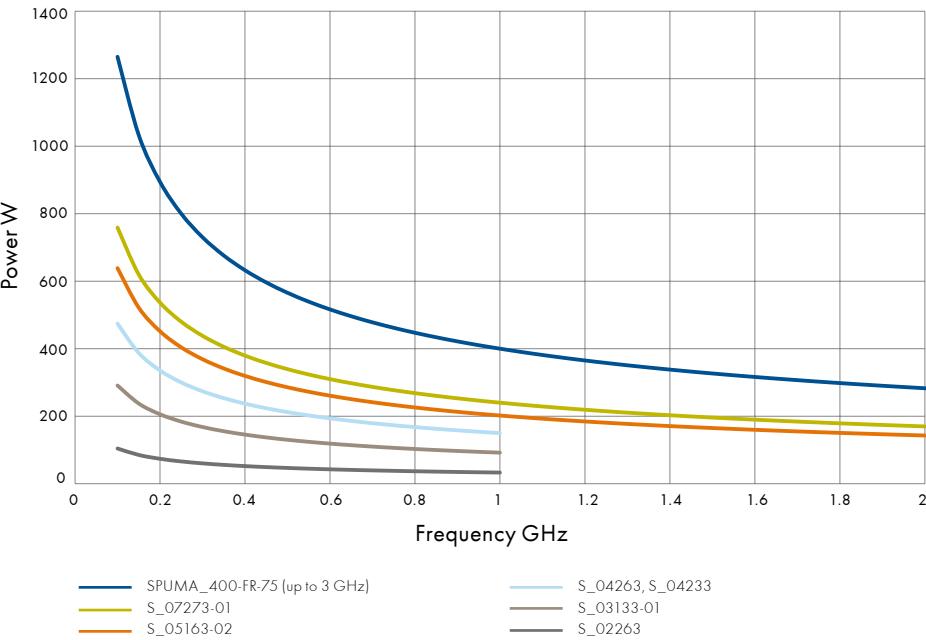


SPUMA and S series 75 Ω




Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +85	0.68	-	-	> 40 (up to 1 GHz)	15	25	S5
-25 to +85	0.42	-	-	> 39 (up to 1 GHz)	25	45	X15
-40 to +85	0.30	-	-	> 40 (up to 1 GHz)	35	61	U17
-25 to +85	0.30	-	-	> 40 (up to 1 GHz)	35	61	U17


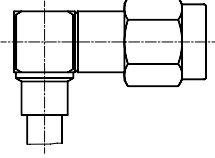
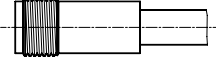
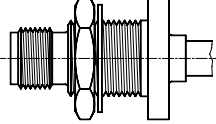
Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +85	0.26	-	-	> 80 (up to 2 GHz)	35	105	X17
-40 to +85	0.15	-	-	> 41 (up to 2 GHz)	70	150	-
-40 to +85	0.13	0.25	-	> 90 (up to 3 GHz)	25	100	X33

CW power
max. values at +40 °C ambient temperature and sea level







Foam line – the flexible low loss cable

Group	7/16				BNC				N			
												
	11	16	21	24	11	16	21	24	11	16	21	24
U17					•	•		•	•			
U30	•	•		•					•	•	•	•
X3					•		•		•			•
X7										•		
X8												
X9	•	•		•	•				•	•	•	•
X17					•							
X25					•	•	•	•	•	•	•	•
X27									•	•		
X28	•				•				•	•	•	•
X29	•								•	•		
X31									•		•	
X33												•
S5					•		•	•				
S8												
S9									•			•
S16	•	•	•	•	•				•	•	•	•
S24	•	•							•	•		
S26									•	•		
S32	•	•	•						•	•	•	•
S39	•		•						•	•	•	

11...	Straight cable plug (male)	16...	Right angle cable plug (male)	21...	Straight cable jack (female)	24...	Straight panel bulkhead cable jack (female)
							

Suitable connectors

QMA				QN				SMA				TNC			
															
11	16	21	24	11	16	21	24	11	16	21	24	11	16	21	24
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Please refer to the HUBER+SUHNER RF coaxial connector catalogue for specific connector information or contact your nearest HUBER+SUHNER partner.

Performance line – high temperature coax cables

RG/K series



HUBER+SUHNER high temperature coax cables are designed for applications up to 200 °C, depending on the material selection of the cable. Cable types out of this portfolio provide lowest loss especially at high frequency thanks to PTFE dielectric material.

Features and benefits

- Standard RG coaxial cables
- High temperature
- High power applications
- PTFE/PFA/FEP based dielectric

ENVIROFLEX series



The ENVIROFLEX cable family enables users to quickly switch from fluorine-containing cables to halogen-free alternatives. The materials used in the cable design – both for the dielectric and for the jacket – do not include any fluorine-consisting plastics. The dimensions of the individual cable types are entirely compatible with the international RG standards. Standard connectors can be used without any restrictions with the ENVIROFLEX cable family. HUBER+SUHNER's control of various key technologies has proven to be an invaluable advantage.

Features and benefits

- Halogen free RG replacement
- UL recognised cable portfolio
- HUBER+SUHNER RADOX® jacket materials
- Low smoke and high flame retardancy

Line overview

Reference matrix

Series	RG/K	ENVIROFLEX
Dielectric material	PTFE	SPEX
Jacket material	FEP/PFA	RADOX®
Halogen free	-	✓
Low smoke	-	✓
Flame retardancy	not flammable	✓ ✓
Temperature range	✓ ✓ ✓	✓ ✓
Weather resistance	✓ ✓ ✓	✓ ✓
Outer diameter (approx. in mm) 50 Ω		
1	K_01152-07	-
2	RG_178_B/U K_01252_D RG_196_A/U	EF_178 EF_178_D
3	RG_316_/U K_02252_D RG_188_A/U	EF_316 EF_316_D
4	RG_303_/U	-
5	RG_400_/U	EF_400
5	RG_142_B/U K_03252_D	EF_142
10	RG_393_/U	EF_393
Outer diameter (approx. in mm) 75 Ω		
2.5	RG_179_B/U K_02253_D-02	EF_179
3	RG_187_A/U	-
5	RG_302_/U	-

This reference matrix does not contain all cable types available. Please refers to the next pages or contact your nearest HUBER+SUHNER representative for your specific request.

Legend

PTFE	polytetrafluoroethylene
SPEX	foamed polyethylene cross-linked
FEP	fluorinated ethylene propylene
PFA	perfluoroalkoxy
RADOX®	registered trade mark

Performance line – high temperature coax cables

Single screen, 50 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
EF_178	23010656	50	3	strand-07	SPEX	single screen	RADOX®	1.84	blue
EF_178-01	84032838	50	3	strand-07	SPEX	single screen	RADOX®	1.84	black
EF_316	23009565	50	3	strand-07	SPEX	single screen	RADOX®	2.54	blue
EF_316-03	84027942	50	3	strand-07	SPEX	single screen	RADOX®	2.52	black

Double screen, 50 Ω

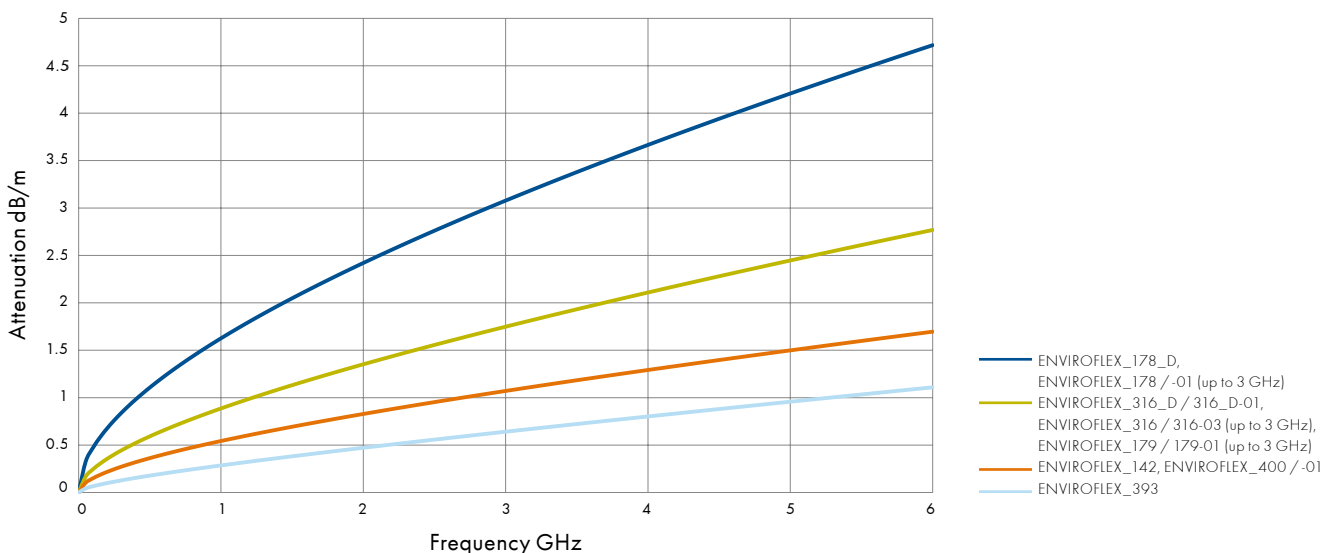
HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
EF_178_D	23030426	50	6	strand-07	SPEX	double screen	RADOX®	2.45	blue
EF_316_D	22512281	50	6	strand-07	SPEX	double screen	RADOX®	3.16	black/blue
EF_316_D-01	84011098	50	6	strand-07	SPEX	double screen	RADOX®	3.16	black
EF_400	22512280	50	6	strand-19	SPEX	double screen	RADOX®	5.00	black/blue
EF_400-01	84008746	50	6	strand-19	SPEX	double screen	RADOX®	5.00	black
EF_142	22512168	50	6	wire	SPEX	double screen	RADOX®	5.00	black/blue
EF_393	22512282	50	6	strand-07	SPEX	double screen	RADOX®	10.05	black/blue

Single screen, 75 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
EF_179	23019104	75	3	strand-07	SPEX	single screen	RADOX®	2.54	blue
EF_179-01	84021688	75	3	strand-07	SPEX	single screen	RADOX®	2.54	black

Attenuation

typical values at +20 °C ambient temperature and sea level



ENVIROFLEX®

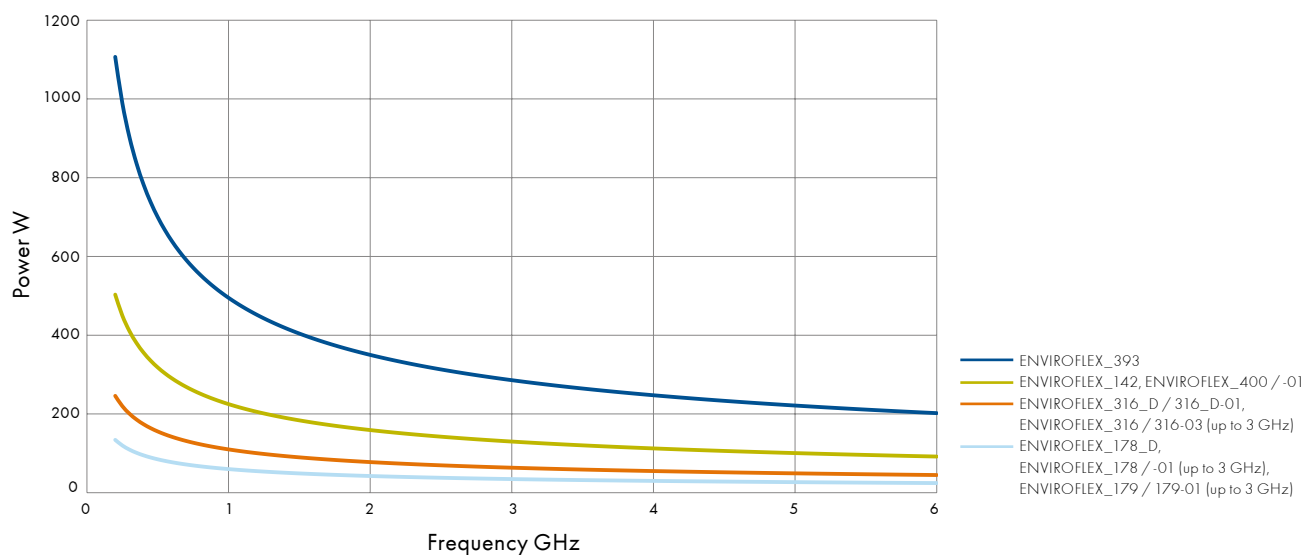
Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +105	1.63	3.11	-	> 40 (up to 3 GHz)	5	20	U1
-40 to +105	1.63	3.11	-	> 40 (up to 3 GHz)	5	20	U1
-40 to +105	0.97	1.86	-	> 38 (up to 1 GHz)	5	30	U2
-40 to +105	0.97	1.86	-	> 38 (up to 1 GHz)	5	30	U2

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +105	1.63	3.08	4.72	> 60 (up to 6 GHz)	5	20	X1
-40 to +105	0.89	1.75	2.77	> 80 (up to 6 GHz)	5	30	U4
-40 to +105	0.89	1.75	2.77	> 80 (up to 6 GHz)	5	30	U4
-40 to +105	0.57	1.08	1.65	> 70 (up to 6 GHz)	10	40	U11
-40 to +105	0.57	1.08	1.65	> 70 (up to 6 GHz)	10	40	U11
-40 to +105	0.54	1.07	1.7	> 75 (up to 5 GHz)	25	50	U9
-40 to +105	0.29	0.65	1.11	> 78 (up to 3 GHz)	30	100	U33

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +105	0.86	1.68	-	> 40 (up to 1 GHz)	7	20	U5
-40 to +105	0.86	1.68	-	> 40 (up to 1 GHz)	7	20	U5

CW power

max. values at +40 °C ambient temperature and sea level



Performance line – high temperature coax cables

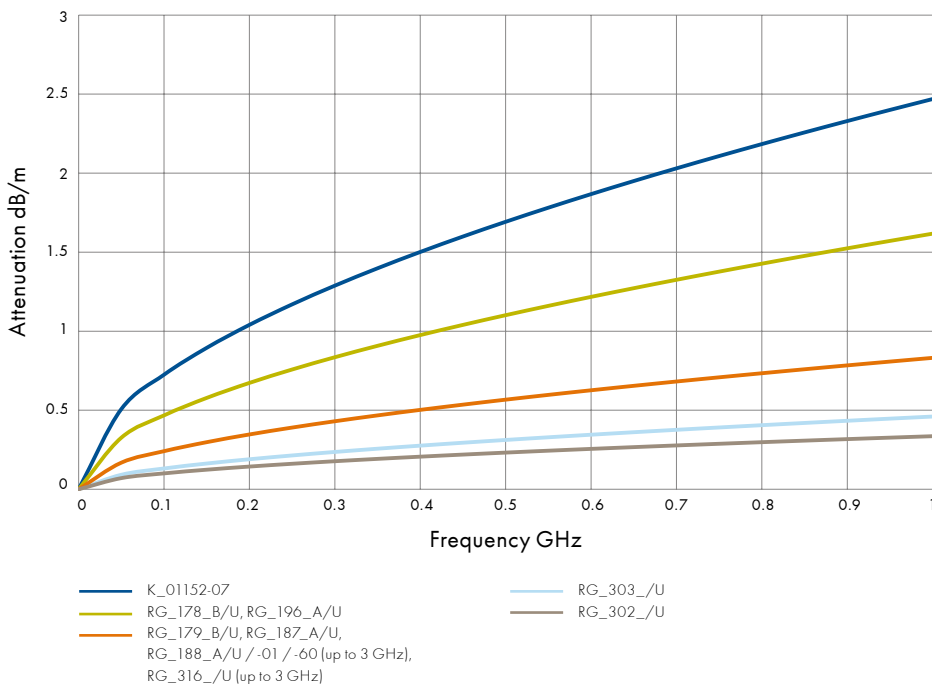
Single screen, 50 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
K_01152-16	85004838	50	3	wire	PFA	single screen	PFA	1.00	nature
K_01152-07	22511192	50	1	strand-07	PFA	single screen	PFA	1.25	white
RG_178_B/U	22510043	50	3	strand-07	PTFE	single screen	FEP	1.80	brown
RG_196_A/U	22510049	50	1	strand-07	PTFE	single screen	PFA	1.83	white
RG_188_A/U	22510046	50	3	strand-07	PTFE	single screen	PFA	2.60	white
RG_188_A/U-01	22510047	50	3	strand-07	FEP	single screen	FEP	2.50	brown
RG_188_A/U-60a)	22511839	50	3	strand-07	PTFE	single screen	FEP	2.60	white
RG_316_/U	22510079	50	3	strand-07	PTFE	single screen	FEP	2.50	brown
RG_303_/U	22510078	50	1	wire	PTFE	single screen	FEP	4.30	brown

^{a)} UL recognised (see UL types page 50)

Attenuation

typical values at +20 °C ambient temperature and sea level

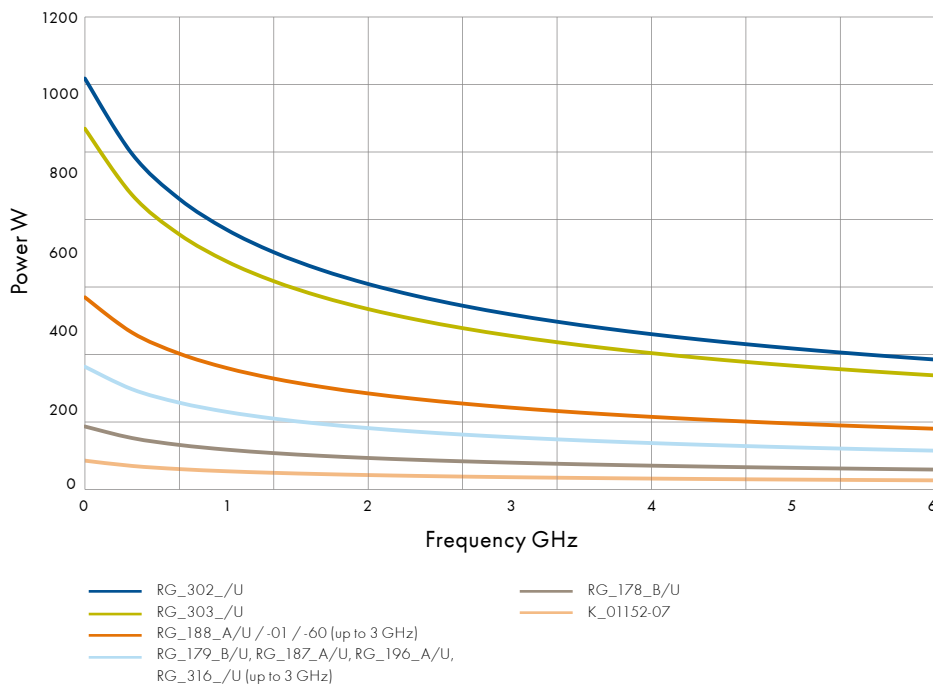


RG/K series 50 Ω

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-55 to +165	2.05	3.63	-	> 40 (up to 3 GHz)	12	20	U99
-80 to +205	2.47	-	-	> 40 (up to 1 GHz)	6	12	U0
-65 to +165	1.62	3.06	-	> 40 (up to 1 GHz)	10	18	U1
-80 to +205	1.62	-	-	> 42 (up to 1 GHz)	10	18	U1
-80 to +205	0.84	1.56	-	> 39 (up to 1 GHz)	15	26	U2
-65 to +165	0.84	1.56	-	> 41 (up to 1 GHz)	15	25	U2
-65 to +165	0.84	1.56	-	> 41 (up to 1 GHz)	15	26	U2
-65 to +165	0.87	1.63	-	> 38 (up to 1 GHz)	15	25	U2
-65 to +165	0.46	-	-	> 40 (up to 1 GHz)	25	43	U7

CW power

max. values at +40 °C ambient temperature and sea level



Performance line – high temperature coax cables

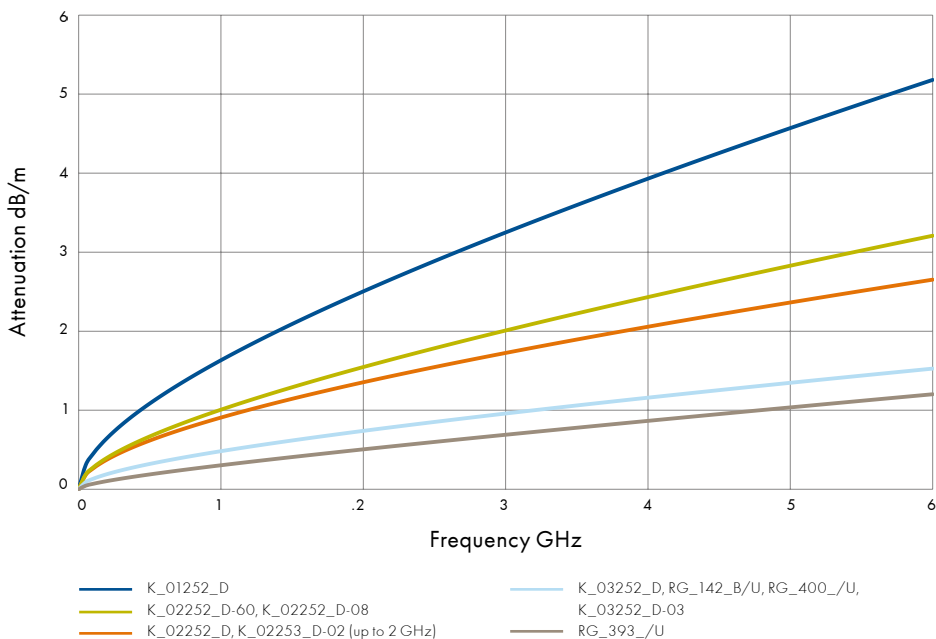
Double screen, 50 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
K_01252_D	22610061	50	6	strand-07	PTFE	double screen	FEP	2.40	brown
K_02252_D	22510218	50	6	strand-07	PTFE	double screen	FEP	3.00	brown
K_02252_D-08	22511127	50	6	strand-07	FEP	double screen	FEP	3.00	brown
K_02252_D-60a)	22511904	50	6	strand-07	FEP	double screen	FEP	3.00	brown
K_03252_D	22610032	50	6	wire	FEP	double screen	FEP	4.95	black
K_03252_D-03	22511236	50	6	wire	PTFE	double screen	FEP	4.95	grey
RG_400_/U	22510080	50	6	strand-19	PTFE	double screen	FEP	4.95	brown
RG_142_B/U	22510037	50	6	wire	PTFE	double screen	FEP	4.95	brown
RG_393_/U	22511430	50	6	strand-07	PFA	double screen	FEP	9.90	brown

^{a)} UL recognised (see UL types page 50)

Attenuation

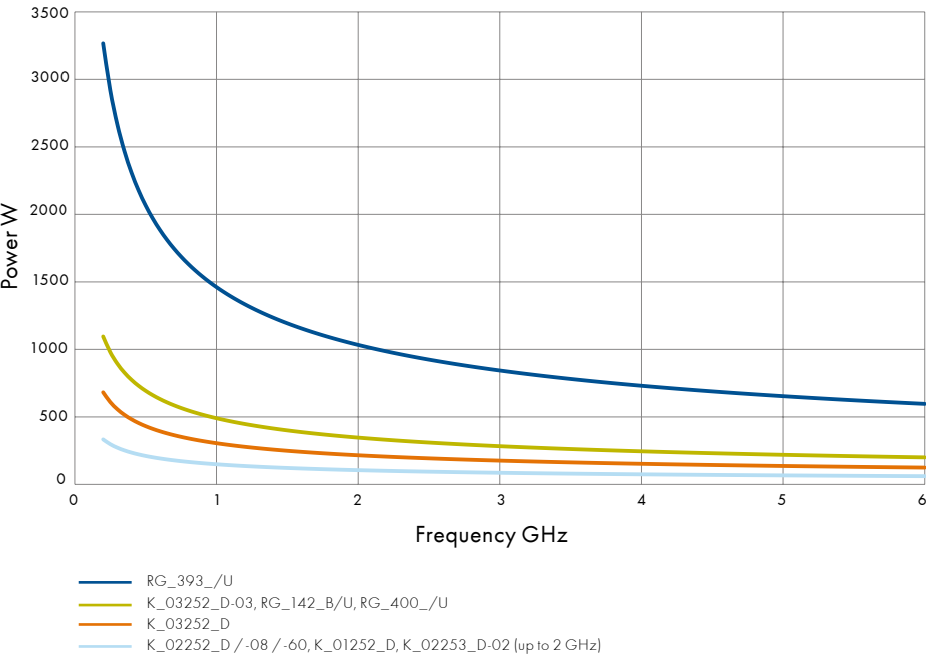
typical values at +20 °C ambient temperature and sea level



RG/K series 50 Ω

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-65 to +165	1.63	3.25	5.18	> 80 (up to 6 GHz)	15	24	X1
-65 to +165	0.91	1.73	2.65	> 80 (up to 6 GHz)	18	30	U4
-65 to +165	0.96	1.88	2.96	> 80 (up to 6 GHz)	18	30	U4
-65 to +165	1.01	2.01	3.21	> 80 (up to 6 GHz)	18	30	U4
-65 to +165	0.48	0.96	1.53	> 82 (up to 6 GHz)	30	50	U9
-65 to +165	0.45	0.86	1.35	> 82 (up to 6 GHz)	30	50	U9
-65 to +165	0.48	0.95	1.51	> 81 (up to 6 GHz)	30	50	U11
-65 to +165	0.46	0.88	1.36	> 85 (up to 6 GHz)	30	50	U9
-65 to +165	0.3	0.69	1.2	> 81 (up to 6 GHz)	60	100	U33

CW power
max. values at +40 °C ambient temperature and sea level



Performance line – high temperature coax cables

Single screen, 75 Ω

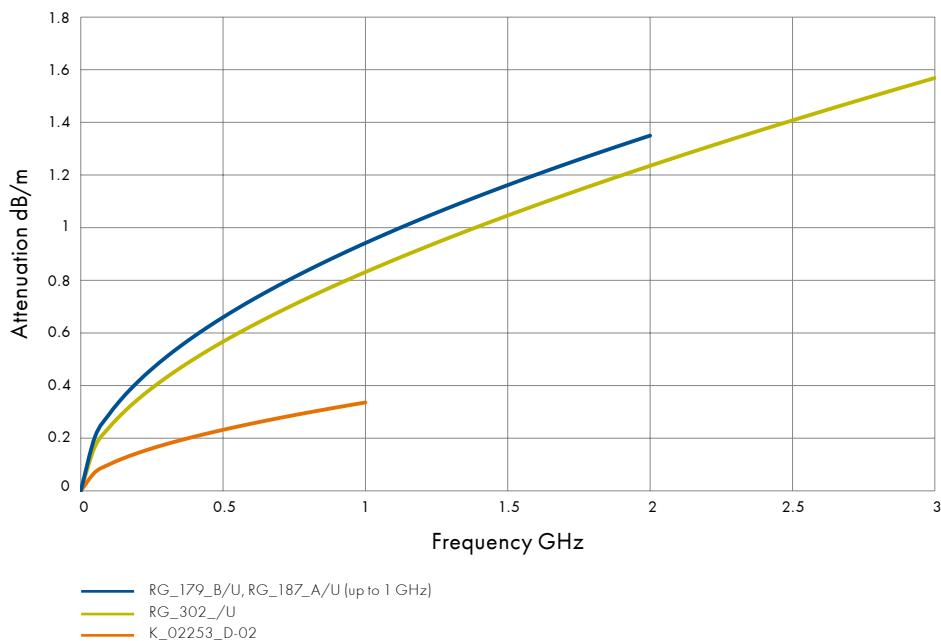
HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
RG_179_B/U	22510044	75	3	strand-07	PTFE	single screen	FEP	2.54	brown
RG_187_A/U	22510045	75	1	strand-07	PTFE	single screen	PFA	2.65	white
RG_302_/U	22510077	75	1	wire	PTFE	single screen	FEP	5.10	brown

Double screen, 75 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
K_02253_D-02	22511469	75	2	strand-07	PTFE	double screen	FEP	3.00	brown

Attenuation

typical values at +20 °C ambient temperature and sea level

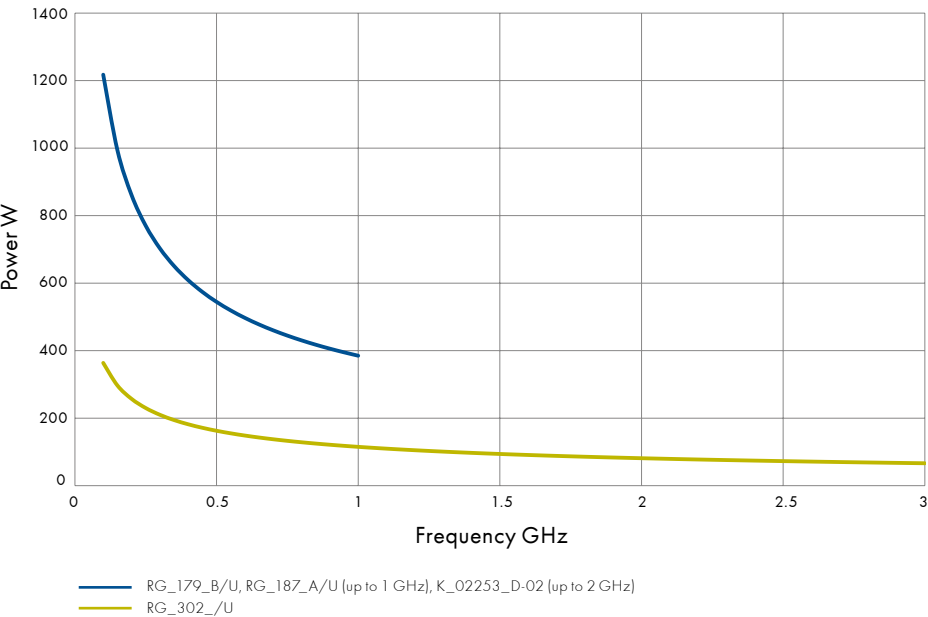


RG/K series 75 Ω

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-65 to +165	0.83	1.57	-	> 41 (up to 1 GHz)	15	28	U5
-80 to +205	0.83	-	-	> 41 (up to 1 GHz)	25	26	U5
-65 to +165	0.34	-	-	> 40 (up to 1 GHz)	30	50	U99

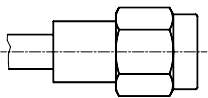
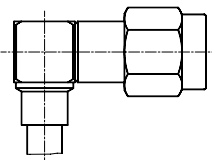
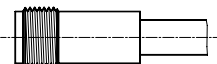
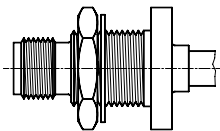
Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-65 to +165	0.94	-	-	> 81 (up to 2 GHz)	18	30	R8

CW power
max. values at +40 °C ambient temperature and sea level



Performance line – high temperature coax cables

Group	7/16				BNC				N			
												
	11	16	21	24	11	16	21	24	11	16	21	24
U1					•		•	•				
U2					•	•	•	•	•		•	•
U4					•	•	•	•	•	•	•	•
U5					•	•	•	•				
U7					•	•	•	•	•	•	•	•
U9	•	•			•	•	•	•	•	•	•	•
U11					•	•	•	•	•	•	•	•
U33	•	•	•		•	•			•	•	•	•
X1												
R8					•							

11...	Straight cable plug (male)	16...	Right angle cable plug (male)	21...	Straight cable jack (female)	24...	Straight panel bulkhead cable jack (female)
							

Suitable connectors

QMA				QN				SMA				TNC			
															
11	16	21	24	11	16	21	24	11	16	21	24	11	16	21	24
			•				•	•	•		•	•			•
•	•		•	•				•	•	•	•	•	•	•	•
•	•		•	•	•		•	•	•	•	•	•	•		•
												•			
•	•		•	•	•		•	•	•	•	•	•	•	•	•
•	•		•	•	•		•	•	•	•	•	•	•	•	•
•	•			•	•		•	•	•	•	•	•	•	•	•
				•	•		•					•			
			•					•			•				

Please refer to the HUBER+SUHNER RF coaxial connector catalogue for specific connector information or contact your nearest HUBER+SUHNER partner.

Standard line – high precision coax cables

RG/G series



HUBER+SUHNER standard PE coax cables provide a wide range of 50 and 75 Ω , as well as single and double shielded cable types. Apart from different constructions and materials which are available out of this portfolio, a solid extruded Polyethylene is used as dielectric material. HUBER+SUHNER's quality standards and its process knowledge guarantee excellent electrical performances, especially for return loss.

Features and benefits

- Standard RG coaxial cables
- High precision types
- Halogen free and flame retardant cable types
- Excellent return loss performance

GX series



HUBER+SUHNER cross-linked PE coax cables cover an extended temperature range up to 105 °C and fulfill highest quality requirements. The cross-linking technology allows a huge variety of application which are focused on demanding environmental requirements. HUBER+SUHNER RADOX® jacket materials provide a unique level of flame retardancy, is very low smoke and free of halogen.

Features and benefits

- High temperature due to cross-linking
- HUBER+SUHNER RADOX jacket materials
- Great flame retardancy
- Low smoke and halogen free

Line overview

Reference matrix

Series	RG	G	GX
Dielectric material	PE	PE	PEX
Jacket material	PVC	LSFH™	RADOX®
Halogen free	-	✓	✓
Low smoke	-	✓	✓
Flame retardancy	-	✓ ✓	✓ ✓
Temperature range	✓	✓	✓ ✓
Weather resistance	✓ ✓	✓ ✓	✓ ✓
Outer diameter (approx. in mm) 50 Ω			
2	G_01132-06	-	-
3	RG_174_A/U G_02232/-09 G_02232_D	G_02262	GX_02272 GX_02272_D-02
5	RG_58_C/U G_03232	G_03262-01	GX_03272/-04
5,5	RG_223_/U G_03232_D-01	G_03262_D/-01	GX_03272_D-06
10	RG_213_/U	-	GX_07272
11	RG_214_/U RG_214_HIFLEX	G_07262_D	GX_07272_D/-04
13	RG_217_/U	-	-
Outer diameter (approx. in mm) 75 Ω			
3	G_02233/-01	G_02263-01/-05	-
4	G_03133-06	-	GX_03173-01
5	G_03233	-	-
6	RG_59_B/U G_04133_D G_04233_D-01/-02	G_04263-03	GX_04273 GX_04273-12
10	RG_11_A/U RG_12_A/U RG_216_/U		GX_07273

This reference matrix does not contain all cable types available. Please refers to the next pages or contact your nearest HUBER+SUHER representative for your specific request.

Legend

PE	polyethylene
PEX	polyethylene cross-linked
PVC	polyvinylchlorid
LSFH™	low smoke free of halogen
RADOX®	registered trade mark

Standard line – high precision coax cables

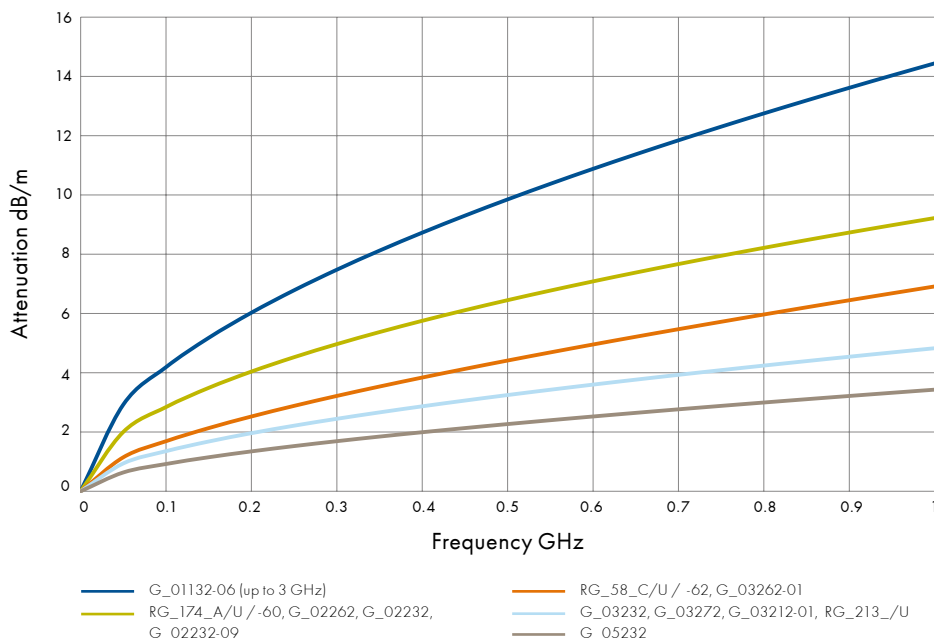
Single screen, 50 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
G_01132-06	22511913	50	3	wire	PE	single screen	PVC	1.80	violet
RG_174_/U	22510040	50	1	strand-07	PE	single screen	PVC	2.55	black
RG_174_A/U	22511579	50	1	strand-07	PE	single screen	PVC	2.80	black
RG_174_A/U-60 ^{a)}	22511810	50	1	strand-07	PE	single screen	PVC	2.80	black
G_02262	22510862	50	1	strand-07	PE	single screen	LSFH™	2.80	black
G_02232	22510103	50	1	strand-07	PE	single screen	PVC	2.80	black
G_02232-09	22510110	50	1	strand-07	PE	single screen	PVC	2.55	grey
G_03212-01	22610095	50	1	strand-19	PE	single screen	PUR	4.95	black
RG_58_C/U	22510015	50	1	strand-19	PE	single screen	PVC	4.95	black
RG_58_C/U-62 ^{a)}	23024284	50	1	strand-19	PE	single screen	PVC	4.95	black
G_03232	22510128	50	1	strand-07	PE	single screen	PVC	5.00	black
G_03262-01	22512108	50	1	strand-19	PE	single screen	LSFH™	4.95	black
G_03272	22511434	50	2	strand-07	PE	single screen	PE	5.00	black
G_05232	22510176	50	1	strand-07	PE	single screen	PVC	7.40	black
RG_213_/U	22510052	50	1	strand-07	PE	single screen	PVC	10.30	black

^{a)} UL recognised (see UL types page 50)

Attenuation

typical values at +20 °C ambient temperature and sea level

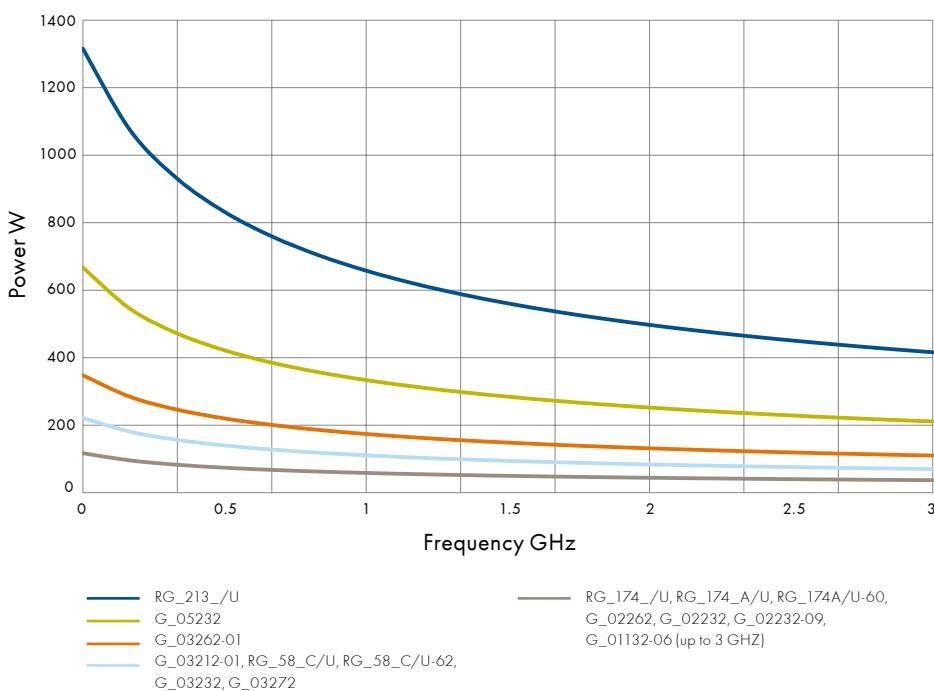


RG/G series 50 Ω

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-25 to +85	1.44	2.72	-	> 38 (up to 3 GHz)	9	20	U1
-25 to +85	0.92	-	-	> 40 (up to 1 GHz)	15	26	U2
-25 to +85	0.92	-	-	> 40 (up to 1 GHz)	15	28	U2
-25 to +85	1.13	-	-	> 40 (up to 1 GHz)	15	28	U2
-40 to +85	1.00	-	-	> 38 (up to 1 GHz)	15	28	U2
-25 to +85	1.00	-	-	> 40 (up to 1 GHz)	15	28	U2
-25 to +85	1.00	-	-	> 40 (up to 1 GHz)	13	25	U2
-40 to +85	0.56	-	-	> 40 (up to 1 GHz)	25	50	U7
-25 to +85	0.69	-	-	> 38 (up to 1 GHz)	25	50	U7
-20 to +85	0.69	-	-	> 35 (up to 1 GHz)	25	50	U7
-25 to +85	0.48	-	-	> 39 (up to 1 GHz)	25	50	U7
-40 to +85	0.69	-	-	> 38 (up to 1 GHz)	20	50	U7
-40 to +85	0.48	-	-	> 39 (up to 2 GHz)	30	50	U7
-25 to +85	0.34	-	-	> 40 (up to 1 GHz)	40	75	U19
-25 to +85	0.23	-	-	> 40 (up to 1 GHz)	50	100	U29

CW power

max. values at +40 °C ambient temperature and sea level



Standard line – high precision coax cables

Double screen, 50 Ω

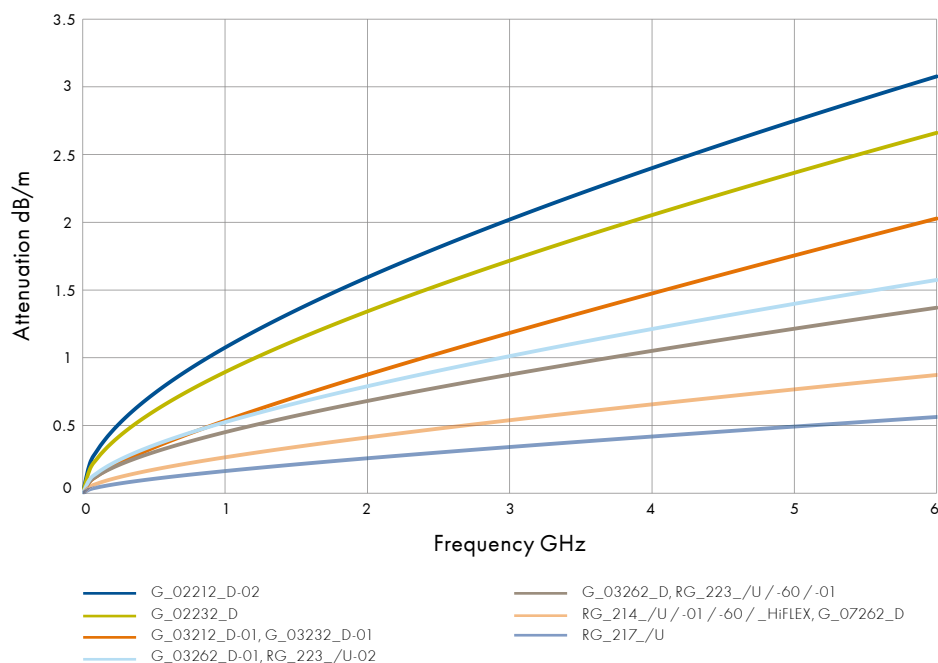
HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
G_02212_D-02	22511668	50	6	strand-07	PE	double screen	PUR	3.10	orange
G_02232_D	22510112	50	6	strand-07	PE	double screen	PVC	3.10	black
RG_223_/U-02	22610106	50	6	strand-19	PE	double screen	PVC	5.30	black
G_03212_D-01	22512305	50	6	strand-19	PE	double screen	PUR	5.40	black
G_03262_D	22511812	50	6	wire	PE	double screen	LSFH™	5.40	black
G_03262_D-01	22511782	50	6	strand-19	PE	double screen	LSFH™	5.40	black
G_03232_D-01	22510134	50	6	strand-19	PE	double screen	PVC	5.35	black
RG_223_/U	22510072	50	6	wire	PE	double screen	PVC	5.40	black
RG_223_/U-60 ^{a)}	22511565	50	6	wire	PE	double screen	PVC	5.40	grey
RG_223_/U-01 ^{b)}	22510073	50	6	wire	PE	double screen	PVC	5.40	black
G_07262_D	22512085	50	6	strand-07	PE	double screen	LSFH™	10.80	black
RG_214_/U	22510057	50	6	strand-07	PE	double screen	PVC	10.80	black
RG_214_/U-01	22510058	50	6	strand-07	PE	double screen	PVC	10.80	black
RG_214_/U-60 ^{a)}	22511566	50	6	strand-07	PE	double screen	PVC	10.80	black
RG_214_HIFLEX	22512156	50	6	strand-19	TPO	double screen	PVC	10.80	black
RG_217_/U	22510064	50	6	wire	PE	double screen	PVC	13.85	black

^{a)} UL recognised (see UL types page 50)

^{b)} precision type: impedance $50 \pm 1 \Omega$

Attenuation

typical values at +20 °C ambient temperature and sea level

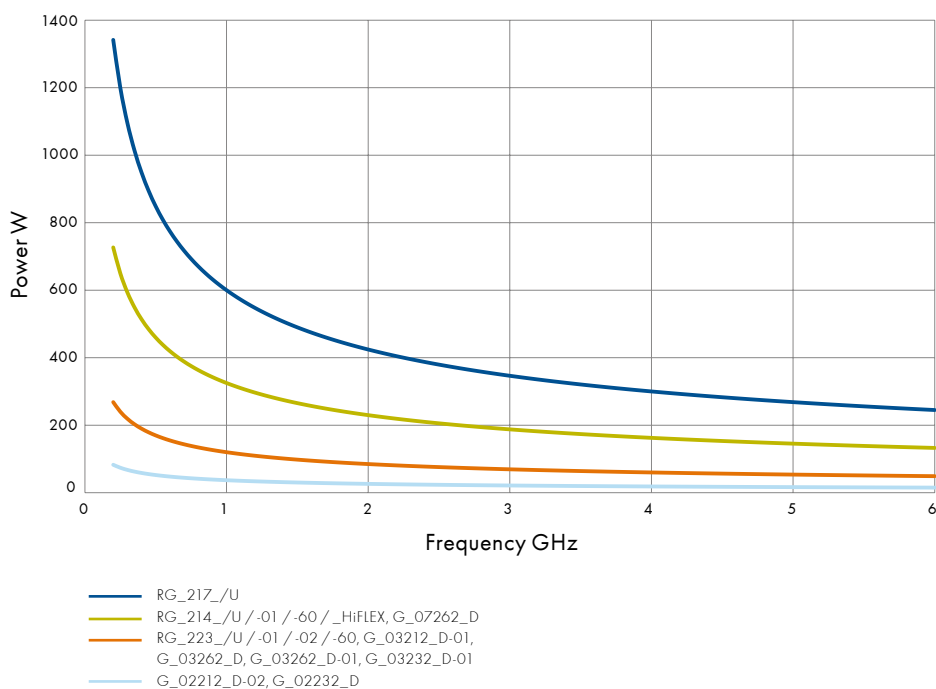


RG/G series 50 Ω

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +85	1.08	2.02	3.08	> 80 (up to 1 GHz)	15	30	U4
-25 to +85	0.89	1.72	2.66	> 78 (up to 1 GHz)	15	30	U4
-25 to +85	0.57	1.07	1.63	> 83 (up to 1 GHz)	26	50	U9
-40 to +85	0.54	1.18	2.03	> 80 (up to 6 GHz)	30	55	U9
-40 to +85	0.45	0.88	1.37	> 80 (up to 1 GHz)	27	55	U9
-40 to +85	0.52	1.01	1.57	> 73 (up to 1 GHz)	27	54	U9
-25 to +85	0.57	1.15	1.87	> 78 (up to 1 GHz)	25	50	U9
-25 to +85	0.45	0.88	1.37	> 85 (up to 1 GHz)	30	54	U9
-25 to +85	0.48	0.93	1.47	> 85 (up to 6 GHz)	30	54	U9
-25 to +85	0.45	0.88	1.37	> 85 (up to 1 GHz)	30	54	U9
-40 to +85	0.25	0.52	0.85	> 80 (up to 1 GHz)	54	108	U32
-25 to +85	0.27	0.54	0.87	> 71 (up to 1 GHz)	55	108	U32
-25 to +85	0.25	0.52	0.85	> 71 (up to 1 GHz)	55	108	U32
-25 to +85	0.25	0.52	0.85	> 71 (up to 1 GHz)	55	108	U32
-25 to +85	0.25	0.50	0.81	> 70 (up to 1 GHz)	15	60	U32
-25 to +85	0.16	0.34	0.56	> 80 (up to 1 GHz)	70	140	U38

CW power

max. values at +40 °C ambient temperature and sea level



Standard line – high precision coax cables

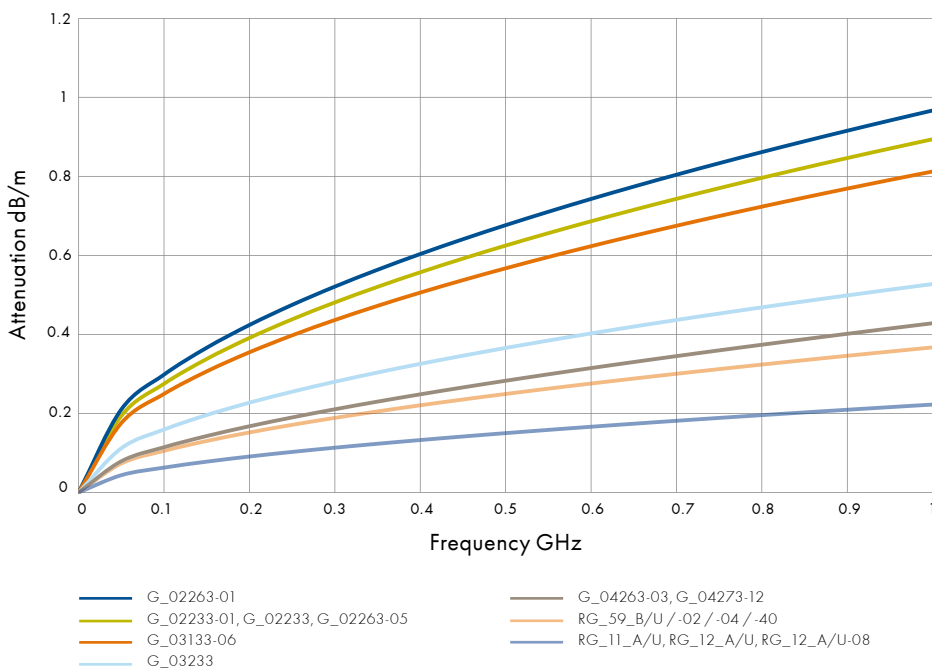
Single screen, 75 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
G_02233-01	22510114	75	1	wire	PE	single screen	PVC	2.80	black
G_02233	22510113	75	1	wire	PE	single screen	PVC	2.80	grey
G_02263-01	22512158	75	1	strand-07	PE	single screen	LSFH™	2.80	black
G_02263-05	84007449	75	1	wire	PE	single screen	LSFH™	2.80	black
G_03133-06	22511378	75	1	strand-07	PE	single screen	PVC	3.90	black
G_03233	22510135	75	1	strand-07	PE	single screen	PVC	5.00	black
RG_59_B/U	22510368	75	1	wire	PE	single screen	PVC	6.10	black
RG_59_B/U-02 ^{a)}	22510022	75	1	wire	PE	single screen	PVC	6.10	black
RG_59_B/U-04	22510023	75	1	wire	PE	single screen	PVC	6.10	black
RG_59_B/U-40	22511193	75	1	wire	PE	single screen	PVC	6.10	red
G_04263-03	22511867	75	1	wire	PE	single screen	LSFH™	6.10	black
G_04273-12	22511991	75	1	strand-07	PE	single screen	RADOX®	6.10	black
RG_11_A/U	22510004	75	1	strand-07	PE	single screen	PVC	10.30	black
RG_12_A/U	22510007	75	1	strand-07	PE	single screen	PVC	10.30	black
RG_12_A/U-08	84005392	75	1	strand-07	PE	single screen	PVC	13.20	black

^{a)} precision type: impedance $50 \pm 0.75 \Omega$

Attenuation

typical values at +20 °C ambient temperature and sea level

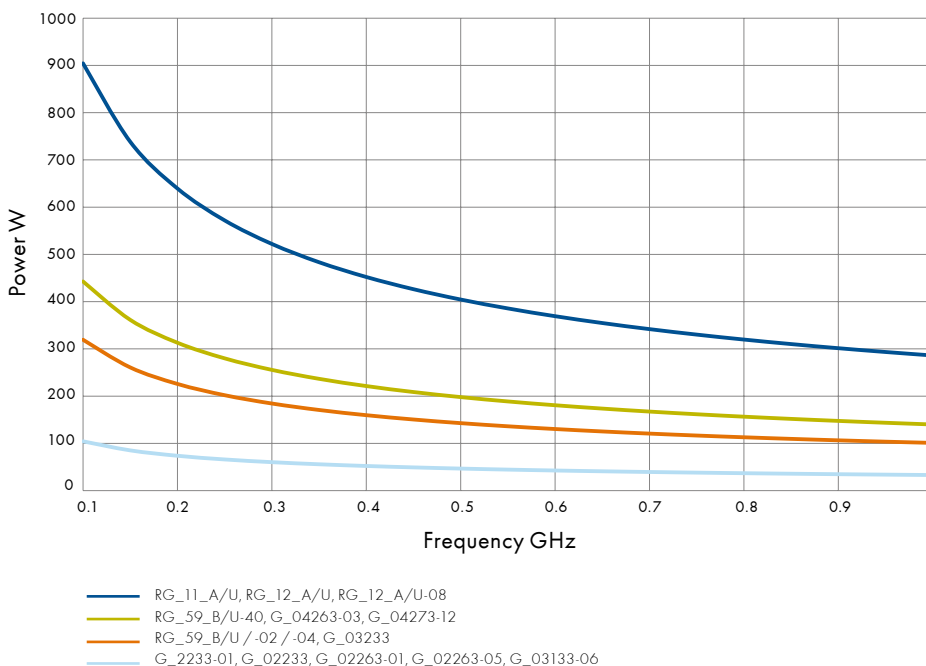


RG/G series 75 Ω

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-25 to +85 °C	0.89	-	-	> 38 (up to 1 GHz)	15	28	U5
-25 to +85 °C	0.89	-	-	> 38 (up to 1 GHz)	15	30	U5
-40 to +85 °C	0.97	-	-	> 38 (up to 1 GHz)	15	30	U5
-40 to +85 °C	0.89	-	-	> 67 (up to 1 GHz)	15	30	U5
-25 to +85 °C	0.81	-	-	> 38 (up to 1 GHz)	20	40	U6
-25 to +85 °C	0.53	-	-	> 39 (up to 1 GHz)	25	50	U12
-25 to +85 °C	0.37	-	-	> 40 (up to 1 GHz)	35	65	U16
-25 to +85 °C	0.37	-	-	> 40 (up to 1 GHz)	32	65	U16
-25 to +85 °C	0.37	-	-	> 40 (up to 1 GHz)	35	91	U16
-25 to +85 °C	0.37	-	-	> 40 (up to 1 GHz)	32	65	U16
-40 to +85 °C	0.43	-	-	> 40 (up to 1 GHz)	32	65	U16
-40 to +85 °C	0.44	-	-	> 40 (up to 1 GHz)	35	91	U16
-25 to +85 °C	0.22	-	-	> 38 (up to 1 GHz)	55	100	U34
-25 to +85 °C	0.22	-	-	> 38 (up to 1 GHz)	65	130	U34
-25 to +85 °C	0.22	-	-	> 38 (up to 1 GHz)	65	130	U34

CW power

max. values at +40 °C ambient temperature and sea level

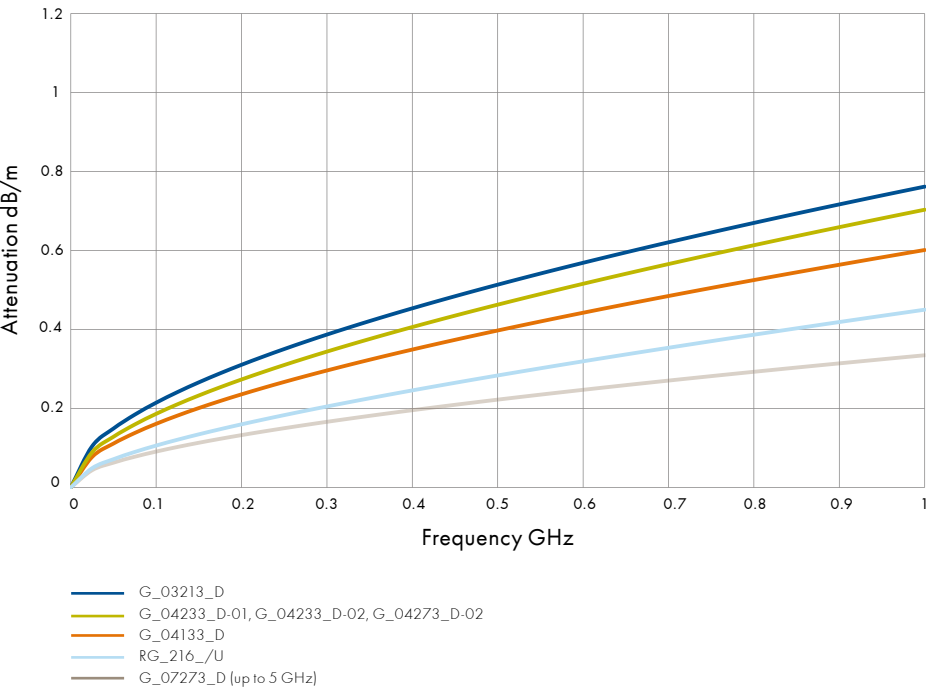


Standard line – high precision coax cables

Double screen, 75 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
G_03213_D	22510954	75	2	strand-07	PE	double screen	PUR	5.35	black
G_04133_D	22610079	75	2	wire	PE	double screen	PVC	6.70	black
G_04233_D-01	22510169	75	2	strand-07	PE	double screen	PVC	6.70	black
G_04233_D-02	22510170	75	2	strand-07	PE	double screen	PVC	6.70	black
G_04273_D-02	22512183	75	2	strand-07	PE	double screen	RADOX®	6.70	black
G_07273_D	22510365	75	5	strand-07	PE	double screen	PE	8.70	black
RG_216_/U	22510062	75	2	strand-07	PE	double screen	PVC	10.80	black

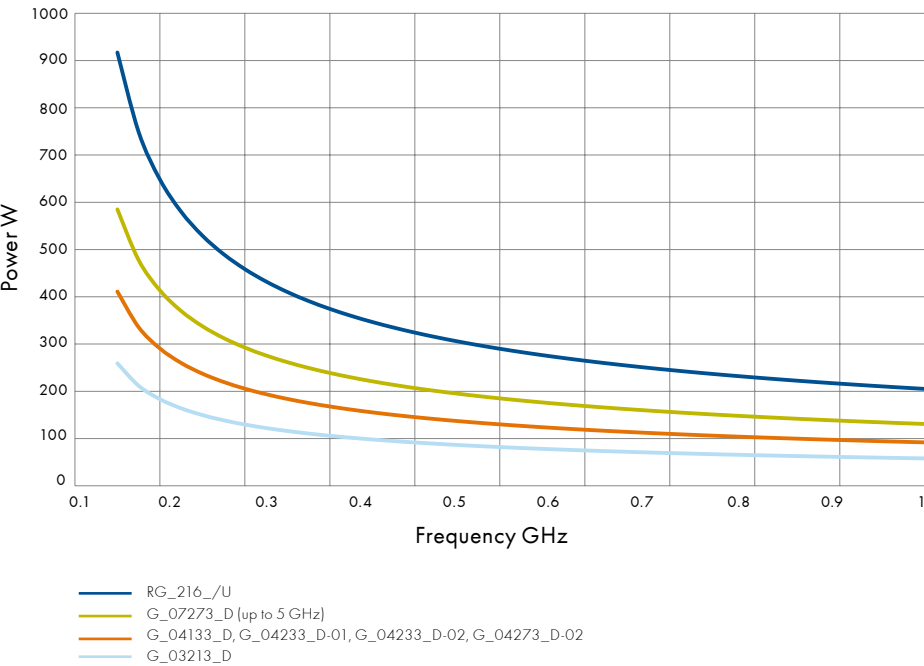
Attenuation
typical values at +20 °C ambient temperature and sea level



RG/G series 75 Ω

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +85	0.51	-	-	> 77 (up to 2 GHz)	25	53	U14
-25 to +85	0.40	-	-	> 80 (up to 1 GHz)	35	67	U18
-25 to +85	0.46	-	-	> 78 (up to 2 GHz)	35	67	X16
-25 to +85	0.46	-	-	> 78 (up to 2 GHz)	33	67	X16
-40 to +85	0.45	-	-	> 81 (up to 6 GHz)	35	67	U18
-40 to +85	0.22	0.43	-	> 70 (up to 2 GHz)	55	110	U36
-25 to +85	0.28	-	-	> 70 (up to 2 GHz)	55	110	U36

CW power
max. values at +40 °C ambient temperature and sea level



Standard line – high precision coax cables

Single screen, 50 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
GX_02272	22510833	50	2	strand-07	PEX	single screen	RADOX®	2.80	black
GX_03272-04	22512309	50	2	strand-19	PEX	single screen	RADOX®	4.95	black
GX_03272	22510959	50	3	strand-19	PEX	single screen	RADOX®	4.95	black
GX_07272	22510708	50	2	strand-07	PEX	single screen	RADOX®	10.30	black

Double screen, 50 Ω

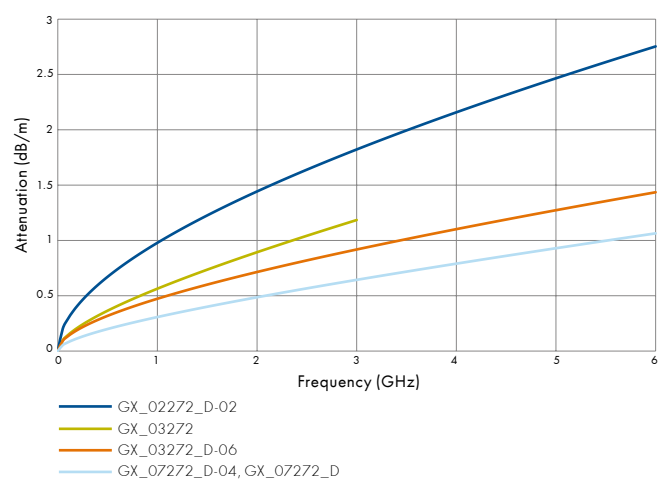
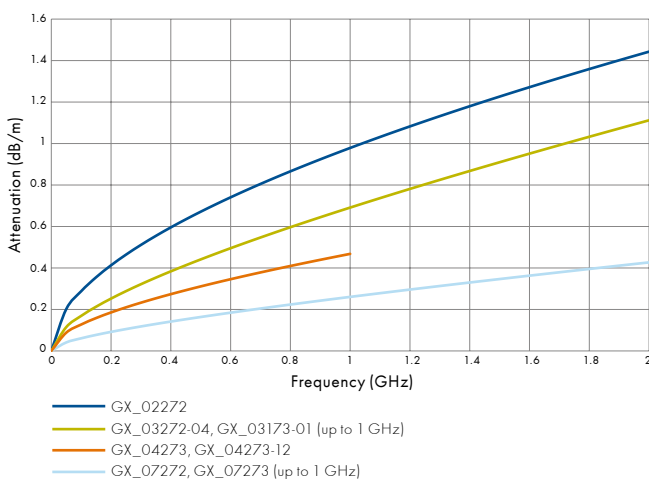
HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
GX_02272_D-02	22511671	50	6	strand-07	PEX	double screen	RADOX®	3.20	black
GX_03272_D-06	22511592	50	6	wire	PEX	double screen	RADOX®	5.40	black
GX_07272_D-04	22511988	50	6	strand-07	PEX	double screen	RADOX®	10.80	black
GX_07272_D	22511171	50	6	strand-07	PEX	double screen	RADOX®	10.80	black

Single screen, 75 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
GX_03173-01	22511581	75	1	strand-07	PEX	single screen	RADOX®	3.70	grey
GX_04273	22510458	75	1	strand-07	PEX	single screen	RADOX®	6.10	black
GX_04273-12	23029791	75	1	strand-07	PEX	single screen	RADOX®	6.10	black
GX_07273	22510641	75	1	strand-07	PEX	single screen	RADOX®	10.30	black

Attenuation

typical values at +20 °C ambient temperature and sea level



GX series

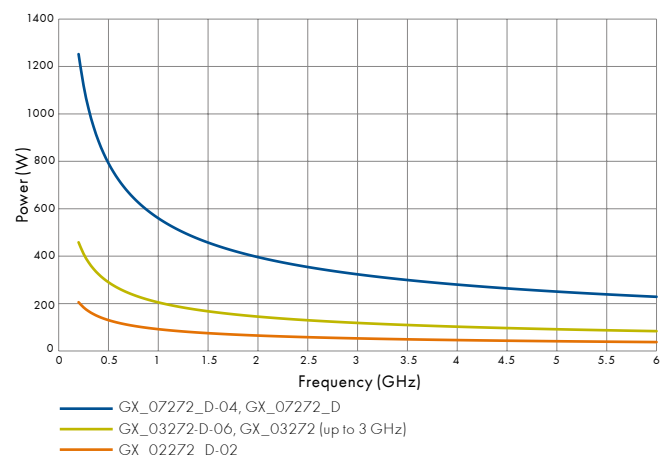
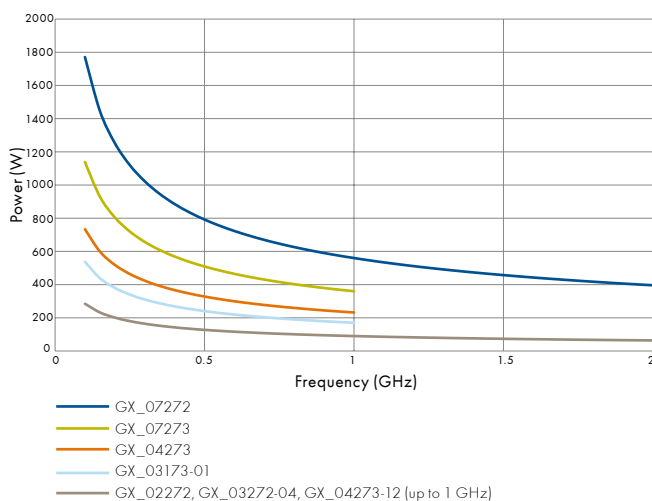
Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +105	0.98	-	-	> 41 (up to 2 GHz)	15	28	U2
-40 to +105	0.69	-	-	> 40 (up to 2 GHz)	25	50	U7
-40 to +105	0.56	1.18	-	> 41 (up to 2 GHz)	25	50	U7
-40 to +105	0.26	-	-	> 41 (up to 2 GHz)	50	100	U29

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +105	0.98	1.82	2.75	> 80 (up to 6 GHz)	15	32	U4
-40 to +105	0.47	0.92	1.44	> 80 (up to 6 GHz)	30	54	U9
-40 to +105	0.31	0.64	1.06	> 81 (up to 6 GHz)	50	110	U32
-40 to +105	0.31	0.64	1.06	> 81 (up to 6 GHz)	50	110	U32

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +105	0.7	-	-	> 40 (up to 1 GHz)	18	37	U6
-40 to +105	0.47	-	-	> 40 (up to 1 GHz)	35	61	U16
-40 to +105	0.49	-	-	> 40 (up to 1 GHz)	30	60	U16
-40 to +105	0.24	-	-	> 40 (up to 1 GHz)	55	100	U34

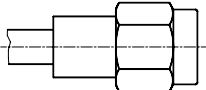
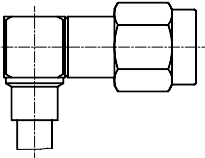

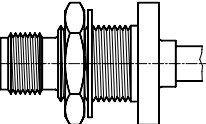
CW power

max. values at +40 °C ambient temperature and sea level



Standard line – high precision coax cables

Group	7/16				BNC				N			
												
	11	16	21	24	11	16	21	24	11	16	21	24
U1					•		•	•				
U2					•	•	•	•	•		•	•
U4					•	•	•	•	•	•	•	•
U5					•	•	•	•				
U6					•							
U7					•	•	•	•	•	•	•	•
U9	•	•			•	•	•	•	•	•	•	•
U12					•			•	•			
U14					•	•		•	•			
U16					•	•	•	•	•		•	•
U18					•	•	•	•	•		•	•
U29	•		•		•	•		•	•	•	•	•
U32	•	•	•		•	•			•	•	•	•
U34					•				•		•	
U36					•				•		•	
U38	•								•			
X16									•			

11...	Straight cable plug (male)	16...	Right angle cable plug (male)	21...	Straight cable jack (female)	24...	Straight panel bulkhead cable jack (female)
							

Suitable connectors

QMA				QN				SMA				TNC			
															
11	16	21	24	11	16	21	24	11	16	21	24	11	16	21	24
			•				•	•	•		•	•			•
•	•		•	•				•	•	•	•	•	•	•	•
•	•		•	•	•		•	•	•	•	•	•	•		•
												•			
•	•		•	•	•		•	•	•	•	•	•	•	•	•
•	•		•	•	•		•	•	•	•	•	•	•	•	•
												•	•	•	•
												•			
				•	•		•					•	•		
				•	•		•					•	•		

Please refer to the HUBER+SUHNER RF coaxial connector catalogue for specific connector information or contact your nearest HUBER+SUHNER partner.

Specialities – low noise coax and triax cables

Low noise coax cables, 50 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction
		Ω	GHz			
G_01130-HT	22510085	50	1	wire	PE	single screen
G_01130-HT-01	22510086	50	1	wire	PE	single screen
G_01130-HT-03	22510088	50	1	strand-07	PE	single screen
G_01130-HT-12	22510732	50	1	strand-07	PE	single screen
G_01130-HT-24	22511866	50	1	strand-07	PE	single screen

Low noise coax cables, 75 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction
		Ω	GHz			
G_03130-HT-01	22510120	75	1	strand-07	PE	single screen
G_03160-HG	22511891	75	1	wire	PE	single screen
G_03130-HT	22510119	75	1	wire	PE	single screen
G_04233-HT-01	22511337	75	1	wire	PE	single screen

Low noise triax cables

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction
		Ω	GHz			
G_01330-HT-23	22511840	50	1	strand-07	PE	double screen
G_02330-HT	22510116	50	1	wire	PE	double screen
G_03330-HT-11	22511103	75	1	wire	PE	double screen

Jacket	Diameter	Colour	Temperature range	Max. noise level	Bending static	Bending repeated	Cable group
	mm		°C	mV	mm	mm	
PVC	3.15	black	-25 to +85	10	16	32	U3
PVC	3.15	grey	-25 to +85	10	20	35	U3
PVC	2.80	black	-25 to +85	10	14	28	U3
PVC	2.95	grey	-25 to +85	10	15	30	U3
PVC	3.15	black	-25 to +85	10	20	50	U3

Jacket	Diameter	Colour	Temperature range	Max. noise level	Bending static	Bending repeated	Cable group
	mm		°C	mV	mm	mm	
PVC	5.00	black	-25 to +85	100	10	20	U13
LSFH™	5.00	black	-40 to +85	20	25	50	U13
PVC	5.00	black	-25 to +85	20	25	50	U13
PVC	6.10	black	-25 to +85	50	35	70	U18

Jacket	Diameter	Colour	Temperature range	Max. noise level	Bending static	Bending repeated	Cable group
	mm		°C	mV	mm	mm	
PVC/PUR	4.30	black	-25 to +85	10	20	50	-
PE/PVC	3.30	grey	-25 to +85	10	30	60	X5
PVC/PVC	6.90	black	-25 to +85	20	40	70	-

Specialities – Triax cables

50 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
G_02332	22510117	50	2	strand-07	PE	triax	PVC	4.25	black
G_02312-03	84016512	50	2	strand-07	PE	triax	PUR	4.25	black
G_02332-01	23023565	50	2	strand-07	PE	triax	PVC	4.25	grey
G_03362-01	22511961	50	2	strand-19	PE	triax	LSFH™	7.20	black
G_03332	22510149	50	2	strand-07	PE	triax	PVC	7.30	black

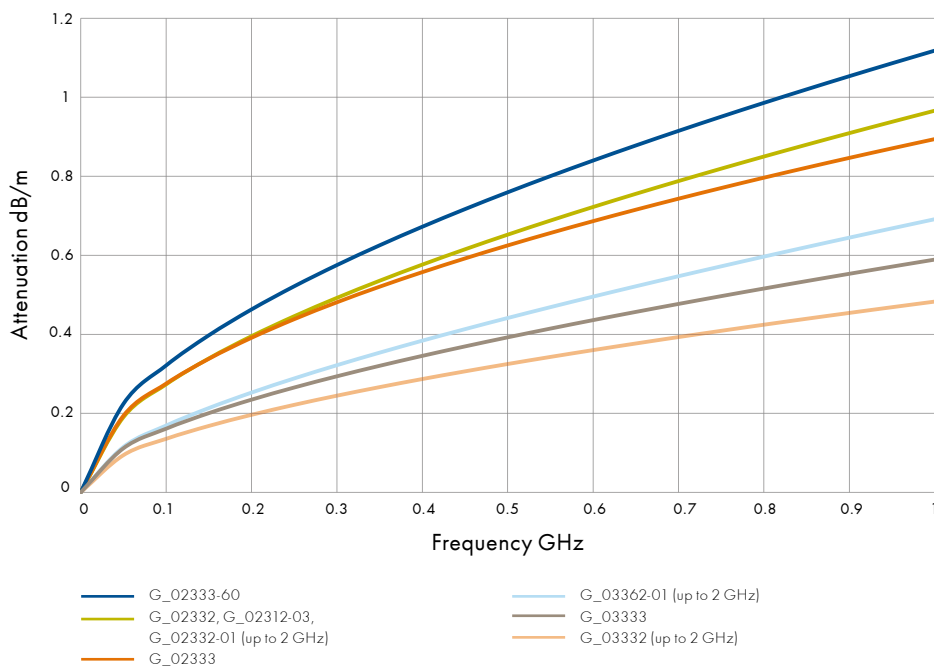
75 Ω

HUBER+SUHNER type	Item no.	Imp.	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
		Ω	GHz					mm	
G_02333	22510118	75	1	wire	PE	triax	PVC	4.30	black
G_02333-60 ^{a)}	22511842	75	1	wire	PE	triax	PVC	4.30	black
G_03333	22510379	75	1	strand-07	PE	triax	PVC	7.35	black

^{a)} UL recognised (see UL types page 50)

Attenuation

typical values at +20 °C ambient temperature and sea level

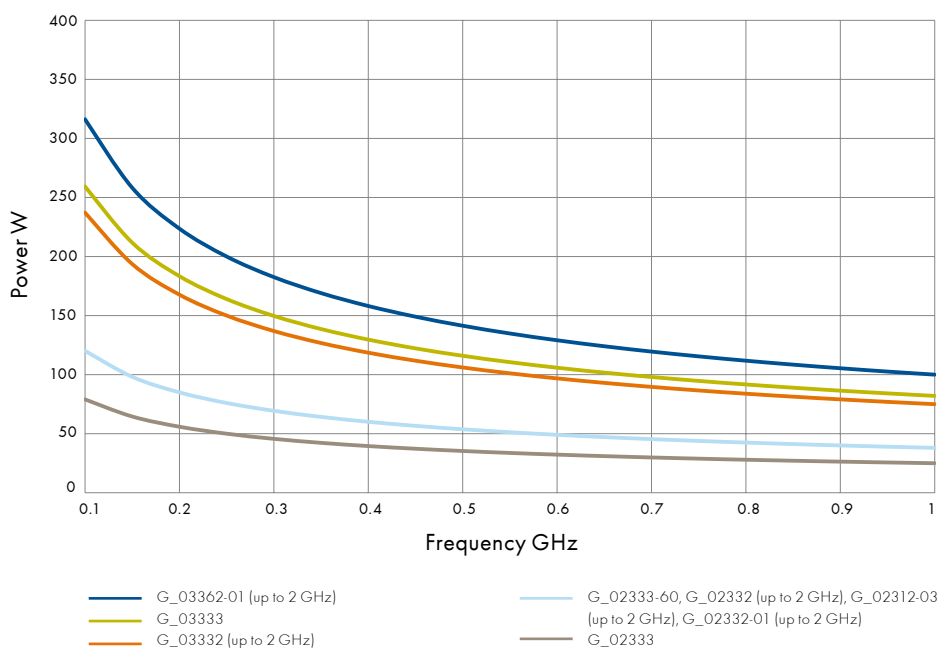


Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-25 to +85	0.97	-	-	> 75 (up to 2 GHz)	20	42	W1
-25 to +85	0.97	-	-	> 75 (up to 2 GHz)	20	42	W1
-25 to +85	0.97	-	-	> 75 (up to 2 GHz)	20	42	W1
-40 to +85	0.69	-	-	> 40 (up to 2 GHz)	36	75	-
-25 to +85	0.48	-	-	> 40 (up to 2 GHz)	36	75	W2

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-25 to +85	0.89	-	-	> 50 (up to 1 GHz)	25	40	X13
-25 to +85	1.12	-	-	> 50 (up to 1 GHz)	25	43	X13
-25 to +85	0.59	-	-	> 50 (up to 1 GHz)	35	73	W2

CW power

max. values at +40 °C ambient temperature and sea level



Specialities – UL recognised cables

50 Ω

HUBER+SUHNER type	Item no.	UL style	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
			GHz					mm	
EF_178	23010656	3651	3	strand-07	SPEX	single screen	RADOX®	1.84	blue
EF_178-01	84032838	3651	3	strand-07	SPEX	single screen	RADOX®	1.84	black
EF_178_D	23030426	3651	6	strand-07	SPEX	double screen	RADOX®	2.45	blue
EF_316	23009565	3651	3	strand-07	SPEX	single screen	RADOX®	2.54	blue
EF_316-03	84027942	3651	3	strand-07	SPEX	single screen	RADOX®	2.52	black
RG_188_A/U-60	22511839	1354	3	strand-07	PTFE	single screen	FEP	2.60	white
RG_174_A/U-60	22511810	1354	1	strand-07	PE	single screen	PVC	2.80	black
K_02252_D-60	22511904	1354	6	strand-07	FEP	double screen	FEP	3.00	brown
EF_316_D	22512281	3651	6	strand-07	SPEX	double screen	RADOX®	3.16	black/blue
EF_316_D-01	84011098	3651	6	strand-07	SPEX	double screen	RADOX®	3.16	black
S_03262_B-61	84078137	1354	5	wire	SPE	tape/braid	LSFH™	4.50	black
SX_03272_B-60	84010513	1354	5	wire	SPEX	tape/braid	RADOX®	4.50	black
S_02132_D-60	84010316	1354	6	wire	SPE	double screen	PVC	4.80	black
RG_58_C/U-62	23024284	1354	1	strand-19	PE	single screen	PVC	4.95	black
EF_400	22512280	3651	6	strand-19	SPEX	double screen	RADOX®	5.00	black/blue
EF_400-01	84008746	3651	6	strand-19	SPEX	double screen	RADOX®	5.00	black
EF_142	22512168	3651	6	wire	SPEX	double screen	RADOX®	5.00	black/blue
RG_223_/U-60	22511565	1354	6	wire	PE	double screen	PVC	5.40	grey
S_04162_B-60	84023780	1354	6	wire	SPE	tape/braid	LSFH™	5.50	black
SX_04172_B-60	84026748	1354	6	wire	SPEX	tape/braid	RADOX®	5.50	black
EF_393	22512282	3651	6	strand-07	SPEX	double screen	RADOX®	10.05	black/blue
SPUMA_400-FR	84040210	1354	6	wire	SPE	tape/braid	LSFH™	10.25	black
RG_214_/U-60	22511566	1478	6	strand-07	PE	double screen	PVC	10.80	black

75 Ω

HUBER+SUHNER type	Item no.	UL style	Frequency	Inner conductor	Dielectric	Braid construction	Jacket	Diameter	Colour
			GHz					mm	
EF_179	23019104	3651	3	strand-07	SPEX	single screen	RADOX®	2.54	blue
EF_179-01	84021688	3651	3	strand-07	SPEX	single screen	RADOX®	2.54	black
G_02333-60	22511842	1354	1	wire	PE	double screen	PVC	4.30	black

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +105	1.63	3.11	-	> 40 (up to 3 GHz)	5	20	U1
-40 to +105	1.63	3.11	-	> 40 (up to 3 GHz)	5	20	U1
-40 to +105	1.63	3.08	4.72	> 60 (up to 6 GHz)	5	20	X1
-40 to +105	0.97	1.86	-	> 38 (up to 1 GHz)	5	30	U2
-40 to +105	0.97	1.86	-	> 38 (up to 1 GHz)	5	30	U2
-65 to +165	0.84	1.56	-	> 41 (up to 1 GHz)	15	26	U2
-25 to +85	1.13	-	-	> 40 (up to 1 GHz)	15	28	U2
-65 to +165	1.01	2.01	3.21	> 80 (up to 6 GHz)	18	30	U4
-40 to +105	0.89	1.75	2.77	> 80 (up to 6 GHz)	5	30	U4
-40 to +105	0.89	1.75	2.77	> 80 (up to 6 GHz)	5	30	U4
-40 to +85	0.35	0.65	-	> 90 (up to 2 GHz)	15	40	X7
-40 to +105	0.37	0.70	-	> 85 (up to 2 GHz)	20	40	X7
-25 to +85	0.50	0.96	1.48	> 75 (up to 6 GHz)	25	48	-
-20 to +85	0.69	-	-	> 35 (up to 1 GHz)	25	50	U7
-40 to +105	0.57	1.08	1.65	> 70 (up to 6 GHz)	10	40	U11
-40 to +105	0.57	1.08	1.65	> 70 (up to 6 GHz)	10	40	U11
-40 to +105	0.54	1.07	1.7	> 75 (up to 5 GHz)	25	50	U9
-25 to +85	0.48	0.93	1.47	> 85 (up to 6 GHz)	30	54	U9
-40 to +85	0.25	0.47	0.71	> 80 (up to 2.2 GHz)	25	60	X9
-40 to +105	0.29	0.58	0.92	> 80 (up to 2.2 GHz)	25	60	X9
-40 to +105	0.29	0.65	1.11	> 78 (up to 3 GHz)	30	100	U33
-40 to +85	0.13	0.24	0.35	> 90 (up to 6 GHz)	25	100	U30
-25 to +85	0.25	0.52	0.85	> 71 (up to 1 GHz)	55	108	U32

Temperature range	Attenuation at 1 GHz	Attenuation at 3 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Cable group
°C	dB/m	dB/m	dB/m	dB	mm	mm	
-40 to +105	0.86	1.68	-	> 40 (up to 1 GHz)	7	20	U5
-40 to +105	0.86	1.68	-	> 40 (up to 1 GHz)	7	20	U5
-25 to +85	1.12	-	-	> 50 (up to 1 GHz)	25	43	X13

Specialities – RF railway cables

Jumper cables

Thin, flexible cables which can be used for narrow radius. Ideally suitable for highly reliable interconnect solution.

Cable type	Item no.	DIN-5510-2	EN 45545-2	NFF 16-101	Imp.	Frequency	Inner conductor	Dielectric*	Braid construction	Jacket
					Ω	GHz				
GX_03272-04	22512309	X			50	2	strand-19	PEX	single screen	RADOX®
SPUMA_195-FR-01	85021562	X	X	X	50	6	wire	SPE	tape/screen	LSFH™
ENVIROFLEX_142	22512168	X	X		50	6	wire	SPEX	double screen	RADOX®
ENVIROFLEX_400	22512280	X		X	50	6	strand-19	SPEX	double screen	RADOX®
ENVIROFLEX_316_D	22512281	X	X		50	6	strand-7	SPEX	double screen	RADOX®
SX_04172_B-60	84026748	X	X	X	50	6	wire	SPEX	tape/screen	RADOX®
SPUMA_240-FR-01	85021563	X	X	X	50	6	wire	SPE	tape/screen	LSFH™

Feeder cables

Low loss cable for covering larger distance.

Cable type	Item no.	DIN-5510-2	EN 45545-2	NFF 16-101	Imp.	Frequency	Inner conductor	Dielectric*	Braid construction	Jacket
					Ω	GHz				
GX_07272	22510708	X	X		50	2	strand-7	PEX	single screen	RADOX®
GX_07272_D-04	22511988	X			50	6	strand-7	PEX	double screen	RADOX®
ENVIROFLEX_393	22512282	X			50	6	strand-7	SPEX	double screen	RADOX®
SPUMA_400-FR-01	84132035	X	X	X	50	6	wire	SPE	tape/screen	LSFH™
SPUMA_500-FR-01	85021564	X	X	X	50	6	wire	SPE	tape/screen	LSFH™
S_10162_B-11	23002145	X	X	X	50	7.5	wire	SPE	tape/screen	LSFH™

75 Ω cables

Specifically designed to carry video signals.

Cable type	Item no.	DIN-5510-2	EN 45545-2	NFF 16-101	Imp.	Frequency	Inner conductor	Dielectric*	Braid construction	Jacket
					Ω	GHz				
ENVIROFLEX_179	23019104	X			75	1	strand-7	SPEX	single screen	RADOX®
GX_04273-12	23029791	X			75	1	strand-7	PEX	single screen	RADOX®
SPUMA_400-FR-75	85022187	X	X		75	3	wire	SPE	tape/screen	LSFH™

Diameter	Temperature range	Attenuation at 1 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Replacement for
mm	°C	dB/m	dB/m	dB	mm	mm	
4.95	-40 to +105	0.69	-	> 40 (up to 2 GHz)	25	50	RG_58 C/U
4.95	-40 to +85	0.39	1.00	> 90 (up to 6 GHz)	12	50	
5	-40 to +105	0.54	1.7	> 75 (up to 5 GHz)	25	50	RG_142 B/U
5	-40 to +105	0.56	1.65	> 70 (up to 6 GHz)	10	40	RG_400 B/U
3.16	-40 to +105	0.89	2.77	> 80 (up to 6 GHz)	5	30	RG_316_D
5.5	-40 to +105	0.29	0.92	> 80 (up to 2.2 GHz)	25	90	
6.15	-40 to +85	0.26	0.68	> 90 (up to 6 GHz)	19	63	

Diameter	Temperature range	Attenuation at 1 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Replacement for
mm	°C	dB/m	dB/m	dB	mm	mm	
10.3	-40 to +105	0.26	-	> 41 (up to 2 GHz)	50	100	RG_213 /U
10.8	-40 to +105	0.31	1.06	> 81 (up to 6 GHz)	50	110	RG_214 /U
10.05	-40 to +105	0.29	1.11	> 78 (up to 3 GHz)	30	100	RG_393 /U
10.25	-40 to +85	0.13	0.35	> 90 (up to 6 GHz)	25	100	
12.78	-40 to +85	0.1	0.29	> 90 (up to 6 GHz)	31	127	
12.9	-40 to +85	0.1	0.28	> 90 (up to 7.5 GHz)	100	200	

Diameter	Temperature range	Attenuation at 1 GHz	Attenuation at 6 GHz	Screening effectiveness	Bending static	Bending repeated	Replacement for
mm	°C	dB/m	dB/m	dB	mm	mm	
2.54	-40 to +105	0.86	-	> 40 (up to 1 GHz)	7	20	RG_179 B/U
6.1	-40 to +105	0.49	-	> 40 (up to 1 GHz)	30	60	RG_59 C/U
10.25	-40 to +85	0.13	-	> 90 (up to 3 GHz)	25	100	

Material comparison

Material properties	PE				LSFH™
	Standard	Crosslinked PE (XPE)	Foamed (SPE)	Foamed and crosslinked (SPEX)	
Application for	Jacket and dielectric	Jacket and dielectric	Dielectric	Dielectric	Jacket

Electrical properties

Dielectric constant	2.28	2.28	1.3 to 2.0	1.3 to 2.0	-
Velocity of propagation %	66	66	up to 82	up to 82	-
Dissipation factor at 1 MHz	1.5×10^{-4}	1.5×10^{-4}	3×10^{-4}	3×10^{-4}	-
Volume resistivity MWm	10^8	10^8	$> 10^8$	$> 10^8$	10^6
Dielectric strength kV/mm	40	40	20	20	26

Mechanical properties

Tensile strength [MPa]	10 to 30	10 to 30	< 10	< 10	7 to 14
Elongation at break %	150 to 600	150 to 600	100 to 400	100 to 400	100 to 200
Abrasion resistance	++	++	o	o	+

Environmental properties

Operating temperature °C	-40 to +85	-40 to +105	-40 to +85	-40 to +105	-40 to +85
Weather resistance (UV, humidity, temperature)	black: ++ colored: +	black: ++ colored: +	o	o	black: ++ colored: +
Water resistance	++	+++	++	++	++
Radiation resistance M_{rad}	++	+++	++	++	+
Chemical resistance at 20 °C					
- Non oxidizing acids	++	++	+	+	o
- Alkali	++	++	++	++	o
- Oil	++	++	+	+	o
- Ethanol, 96 %	++	++	+	+	o

Other properties

Density kg/m³	930	930	400 - 600	400 - 600	1500
Halogen content	no	no	no	no	no
Flexibility	+	+/-	+/-	+/-	+/-
Flammability	highly flammable	highly flammable	highly flammable	highly flammable	flame retardant
Smoke generation	low	low	low	low	low
Combustability	keeps burning	keeps burning	keeps burning	keeps burning	self-extinguishing
Solder resistance	+	++	+	+	o

Legend:

-	n/a
o	poor
+/-	neutral
+	good
++	very good
+++	excellent

RADOX®	PVC		TPE - PUR	PTFE unsintered	PTFE sintered	PFA	FEP
	Standard	Low migration					
Jacket	Jacket	Jacket	Jacket	Dielectric	Dielectric	Jacket and dielectric	Jacket and dielectric

-	-	-	-	1.77	2.05	2.1	2.1
-	-	-	-	77	71	69	69
-	-	-	-	$< 10^{-4}$	10^{-4}	3×10^{-4}	3×10^{-4}
10^3 to 10^8	10^5	10^5	10^4	$> 10^{10}$	10^{10}	10^{10}	10^{11}
30	20 to 25	18 to 23	14 to 25	20	50	70	82

10 to 14	10 to 30	10 to 20	50	-	27	20	28
150 to 250	> 50	> 200	650	-	300	300	500
+	+	+	+++	++	++	++	+++

-40 to +105	-25 to +85	-25 to +85	-40 to +85	-200 to +200	-200 to +260	-80 to +205	-65 to +165
black: ++ colored: +	++	++	black: ++ colored: +	+++	+++	+++	+++
++	+	+	++	++	++	++	++
++	++	++	o	o	o	o	++
+	+/-	+	+	+++	+++	+++	+
+	+/-	+	+	+++	+++	+++	+
+/-	+/-	+	+	+++	+++	+++	++
+/-	+/-	+	+	+++	+++	+++	++

1200 - 1500	1200 - 1400	1300 - 1500	1100 - 1600	1800	2180	2150	2150
no	yes	yes	no	yes	yes	yes	yes
+	++	++	++	o	o	o	o
flame retardant	flammable	flammable	flammable	not flammable	not flammable	not flammable	not flammable
low to medium	high, corrosive gas	high, corrosive gas	high	low	low	low	low
self-extinguishing	extinguishes outside the flame	extinguishes outside the flame	keeps burning, drops off	not flammable	not flammable	not flammable	not flammable
++	o	o	o	++	++	++	++

RG reference list

RG type	Impedance	Centre conductor		Dielectric		Screen (armouring)	
		Material	Ø mm	Material	Ø mm	Construction	Ø mm
RG_5_B/U	cancelled - replacement: RG_212_/U						
RG_6_A/U	75 ± 3	StCu	0.73	PE	4.80	CuAg / Cu	6.20
RG_8_A/U	cancelled - replacement: RG_213_/U						
RG_9_B/U	cancelled - replacement: RG_214_/U						
RG_10_A/U	cancelled - replacement: RG_215_/U						
RG_11_A/U	75 ± 3	CuSn	7 × 0.4	PE	7.25	Cu	8.10
RG_12_A/U	75 ± 3	CuSn	7 × 0.4	PE	7.25	Cu	8.10
(Armoured RG_11_A/U)						braid-armoured	11.80
RG_13_A/U	cancelled - replacement: RG_216_/U						
RG_14_A/U	cancelled - replacement: RG_217_/U						
RG_17_A/U	cancelled - replacement: RG_218_/U						
RG_18_A/U	cancelled - replacement: RG_219_/U						
RG_19_A/U	cancelled - replacement: RG_220_/U						
RG_20_A/U	cancelled - replacement: RG_221_/U						
RG_21_A/U	cancelled - replacement: RG_222_/U						
RG_22_B/U	95 ± 5	Cu	7 × 0.4	PE-core	2.25		
(Twinax)		PE-tube over 2 twisted leads Ø 7.25 mm				CuSn/CuSn	8.70
RG_34_B/U	75 ± 3	Cu	7 × 0.62	PE	11.50	Cu	12.40
RG_35_B/U	75 ± 3	Cu	2.65	PE	17.30	Cu	18.60
(Armoured RG_164_/U)						braid-armoured	23.50
RG_55_B/U	cancelled - replacement: RG_223_/U						
RG_57_A/U	cancelled - replacement: RG_130_/U						
RG_58_C/U	50 ± 2	CuSn	19 × 0.18	PE	2.95	CuSn	3.60
RG_59_B/U	75 ± 3	StCu	0.58	PE	3.70	Cu	4.40
RG_62_A/U	93 ± 5	StCu	0.62	PE/air	3.70	Cu	4.40
RG_62_B/U	93 ± 5	StCu	7 × 0.2	PE/air	3.70	Cu	4.40
RG_63_B/U	125 ± 6	StCu	0.62	PE/air	7.25	Cu	8.10
RG_71_B/U	93 ± 5	StCu	0.62	PE/air	3.70	Cu/CuSn	5.00
RG_74_A/U	cancelled - replacement: RG_224_/U						
RG_79_B/U	125 ± 6	StCu	0.60	PE/air	7.25	Cu	8.10
(Armoured RG_63_B/U)						braid-armoured	11.80
RG_87_A/U	cancelled - replacement: RG_225_/U						
RG_94_/U	cancelled - replacement: RG_226_/U						
RG_108_A/U	78 ± 7	CuSn	7 × 0.31	PE-Core	2.00		
(Twinax)	2 leads twisted ø 4.0 mm					CuSn	4.60
RG_111_A/U	95 ± 5	Cu	7 × 0.4	PE Core	2.25		
(Twinax)	PE-tube over 2 twisted leads ø 7.25 mm					CuSn/CuSn	8.70
(Armoured RG_22_B/U)						braid-armoured	12.30

Manufactured by HUBER+SUHNER

Jacket		Designation according to MIL-C-17		HUBER+SUHNER alternative	
Material	Ø mm	For new designs use specification	Former designation	Halogen free	Flame retard./ halogen free Operating temp. up to +105 °C
		M17/199-00001	M17/162-00001		
PVC 2	8.40	M17/180-00001	M17/2-RG6		

		M17/182-00001	M17/15-RG22		
PVC 2	10.80	M17/182-00002 (armoured)			
PVC 2	16.00		M17/24-RG_34, cancelled without replacement		
PVC 2	22.10	M17/209-00001...	M17/64-RG35		
		M17/209-00002 (armoured)			

PVC 2	10.30	M17/31-RG_79	-		
-	-				

RG reference list

RG type	Impedance	Centre conductor		Dielectric		Screen (armouring)	
		Material	Ø mm	Material	Ø mm	Construction	Ø mm
RG_116_/U	cancelled - replacement: RG_227_/U						
RG_117_A/U	cancelled - replacement: RG_211_A/U						
RG_118_A/U	cancelled - replacement: RG_228_A/U						
RG_119_/U	50 ± 2	Cu	2.60	PTFE	8.45	Cu/Cu	10.10
RG_120_/U	50 ± 2	Cu	2.60	PTFE	8.45	Cu/Cu	10.10
(Armoured RG_119_/U)						braid-armoured	13.30
RG_122_/U	50 ± 2	CuSn	27 × 0.13	PE	2.50	CuSn	3.20
RG_140_/U	cancelled - replacement: RG_302_/U						
RG_141_/U	50 ± 2	StCuAg	0.95	PTFE	2.95	CuAg	3.60
RG_142_B/U	50 ± 2	StCuAg	0.95	PTFE	2.95	CuAg/CuAg	4.20
RG_143_/U	cancelled - replacement: RG_304_/U						
RG_144_/U	75 ± 3	StCuAg	7 × 0.45	PTFE	7.25	CuAg	8.00
RG_149_/U	cancelled - replacement: RG_391_/U						
RG_150_/U	cancelled - replacement: RG_392_/U						
RG_164_/U	75 ± 3	Cu	2.65	PE	17.3	Cu	18.60
RG_165_/U	50 ± 2	CuAg	7 × 0.79	PTFE	7.25	CuAg	8.00
RG_166_/U	50 ± 2	CuAg	7 × 0.79	PTFE	7.25	CuAg	8.00
(Armoured RG_165_/U)						braid-armoured aluminium alloy	11.90
RG_174_/U	50 ± 2	StCu	7 × 0.16	PE	1.50	CuSn	2.00
RG_174_A/U	50 ± 2	StCu	7 × 0.16	PE	1.50	CuSn	2.00
RG_177_/U	50 ± 2	Cu	5.00	PE	17.3	CuAg/CuAg	18.90
RG_178_B/U	50 ± 2	StCuAg	7 × 0.1	PTFE	0.83	CuAg	1.30
RG_179_B/U	75 ± 3	StCuAg	7 × 0.1	PTFE	1.53	CuAg	2.00
RG_180_B/U	95 ± 5	StCuAg	7 × 0.1	PTFE	2.60	CuAg	3.10
RG_187_A/U	75 ± 3	StCuAg	7 × 0.1	PTFE	1.53	CuAg	2.65
RG_188_A/U	50 ± 2	StCuAg	7 × 0.18	PTFE	1.54	CuAg	2.00
RG_195_A/U	95 ± 5	StCuAg	7 × 0.1	PTFE	2.52	CuAg	3.10
RG_196_A/U	50 ± 2	StCuAg	7 × 0.1	PTFE	0.83	CuAg	1.30
RG_210_/U	93 ± 5	StCuAg	0.60	PTFE/air	3.70	CuAg	4.50
RG_212_/U	50 ± 2	CuAg	1.40	PE	4.70	CuAg/CuAg	6.20
RG_213_/U	50 ± 2	Cu	7 × 0.75	PE	7.25	Cu	8.10
RG_214_/U	50 ± 2	CuAg	7 × 0.75	PE	7.25	CuAg/CuAg	8.70

Manufactured by HUBER+SUHNER

Jacket		Designation according to MIL-C-17		HUBER+SUHNER alternative	
Material	Ø mm	For new designs use specification	Former designation	Halogen free	Flame retard./ halogen free Operating temp. up to +105 °C
GSi	11.80	M17/156-00001	M17/52-RG119 (unarmoured)		
GSi	11.80	M17/52-00001	M17/52-RG120 (armoured)		
-	-				
PVC 2	4.10	M17/198-00001	M17/157-00001		
GSi	4.40	M17/170-00001 see also RG_303	-		
FEP	4.95	M17/158-00001	M17/60-RG142		GX_03272_D-06/ ENVIROFLEX_142
GSi	10.40	M17/62-RG_144	-		(GX_07273)
PVC 2	22.10	M17/209-00001... M17/209-00002 (armoured)	M17/64-RG164		
GSi	10.40	M17/159-00001	M17/65-RG165		GX_07272
GSi	10.40	-	M17/65-RG166		
-	-				
PVC 2	2.55	-	-	-	-
PVC 2	2.80	M17/173-00001 M17/196-00001	M17/119-RG174	G_02262	GX_02272
PVC 2	22.70	M17/160-00001 M17/212-00001 M17/210-00001	M17/67-RG177		EF_178 EF_179
FEP	1.80	M17/169-00001	M17/93-RG178		EF_178
FEP	2.54	M17/94-RG179	-		EF_179
FEP	3.60	M17/95-RG180	-		
PFA	2.00	-	-		
PFA	2.60	-	-		
PFA	3.70	-	-		
PFA	1.95	M17/169-00001	M17/71		
GSi	6.10	M17/97-RG_210	-		
PVC 2	8.40	M17/162-00001	M17/73-RG212 M17/199-00001		
PVC 2	10.30	M17/213-00001	M17/74-RG213 M17/163-00001		GX_07272
PVC 2	10.80	M17/164-00001	M17/75-RG214	G_07262-D	GX_07272_D

RG reference list

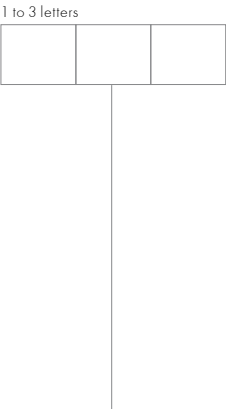
RG type	Impedance	Centre conductor		Dielectric		Screen (armouring)	
		Material	Ø mm	Material	Ø mm	Construction	Ø mm
RG_215_/U	50 ± 2	Cu	7 × 0.75	PE	7.25	Cu	8.10
[Armoured RG_213_/U]						braid-armoured	11.80
RG_216_/U	75 ± 3	CuSn	7 × 0.4	PE	7.25	Cu/Cu	8.70
RG_217_/U	50 ± 2	Cu	2.68	PE	9.40	Cu/Cu	11.20
RG_222_/U High attenuation cable	50 ± 2	CrNi	1.41	PE	4.70	CuAg/CuAg	6.20
RG_223_/U	50 ± 2	CuAg	0.89	PE	2.95	CuAg CuAg	3.55 4.20
RG_224_/U	50 ± 2	Cu	2.68	PE	9.40	Cu/Cu	11.20
[Armoured RG_217_/U]						braid-armoured	15.40
RG_225_/U	50 ± 2	CuAg	7 × 0.79	PTFE	7.25	CuAg/CuAg	8.70
RG_227_/U	50 ± 2	CuAg	7 × 0.79	PTFE	7.25	CuAg/CuAg	8.70
[Armoured RG_225_/U]						braid-armoured	12.40
RG_235_A/U	cancelled – replacement: RG_179_/U						
RG_302_/U	75 ± 3	StCuAg	0.64	PTFE	3.70	CuAg	4.30
RG_303_/U	50 ± 2	StCuAg	0.95	PTFE	2.95	CuAg	3.60
RG_304_/U	50 ± 2	StCuAg	1.50	PTFE	4.70	CuAg/CuAg	6.30
RG_307_A/U (Triaxial)	75 ± 4	CuAg	19 × 0.148	SPE	3.70	CuAg CuAg	4.50 7.50
RG_316_/U	50 ± 2	StCuAg	7 × 0.18	PTFE	1.54	CuAg	2.00
RG_393_U	50 ± 2	CuAg	7 × 0.79	PTFE/PFA	7.25	CuAg CuAg	8.00 8.70
RG_400_/U	50 ± 2	CuAg	19 × 0.2	PTFE	2.95	CuAg CuAg	3.60 4.20
RG_401_/U (Semi-rigid)	50±0.5	CuAg	1.63	PTFE	5.31	Cu-tube	6.30
HUBER+SUHNER alternative: EZ_250/M17							
RG_402_/U (Semi-rigid)	50 ± 1	StCuAg	0.92	PTFE	3.00	Cu-tube	3.60
HUBER+SUHNER alternative: EZ_141/M17							
RG_403_/U (Triaxial)	50 ± 2	CuAg	7 × 0.1	PTFE	0.83	CuAg CuAg	1.30 2.40
RG_404_/U (Low noise)	50 ± 2	StCuAg	7 × 0.1	PTFE semicond.	0.87 0.90	CuAg	1.40
RG_405_/U (Semi-rigid)	50±1.5	StCuAg	0.51	PTFE	1.68	Cu-tube	2.20
HUBER+SUHNER alternative: EZ_86/M17							

Manufactured by HUBER+SUHNER

Jacket		Designation according to MIL-C-17		HUBER+SUHNER alternative	
Material	Ø mm	For new designs use specification	Former designation	Halogen free	Flame retard./ halogen free Operating temp. up to +105 °C
PVC 2	10.30	-	M17/74-RG215		
-	-				
PVC 2	10.80	M17/191-00001	M17/77-RG216	G_07273_D	
PVC 2	13.80	M17/215-00001	M17/165-00001		
PVC 2	8.50	M17/162-00001	M17/199-00001		
PVC 2	5.40	M17/167-00001	M17/84-RG223 M17/200-00001	G_03262_D	GX_03272_D-06
PVC 2	13.80	M17/215-00001	M17/165-00002		
-	-				
GSi	10.90	M17/86-00001	-		
GSi	10.90	M17/86-00002	M17/86-00002		
-	-	(armoured)			

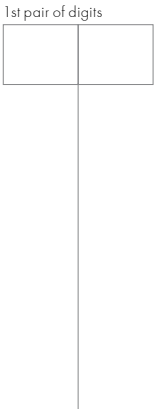
FEP	5.10	M17/110-RG302	-		
FEP	4.30	M17/170-00001	M17/111-RG_303 superseded RG_141_A/U		
FEP	7.10	M17/171-00001	M17/112-RG304		
PUR PE	5.20 6.70	M17/116-RG_307	-		
FEP	2.50	M17/172-00001	M17/113-RG316		EF_316
FEP	9.90	M17/174-00001	M17/127-RG393		GX_07272_D EF_393
FEP	4.95	M17/175-00001	M17/128-RG400		EF_400
-	-	M17/129-00001	M17/129-RG401		
-	-	M17/130-00001	M17/130-RG402		
FEP FEP	1.90 3.10	-	M17/131-RG403		
FEP	1.90	M17/132-00001	M17/132-RG404		
-	-	-	M17/133-RG405		

Designation key



Dielectric material

- G = solid polyethylene
- GX = solid polyethylene, cross-linked
- K = polytetrafluorethylene (PTFE, FEP, PFA)
- S = foam polyethylene, foam polypropylene
- SX = foam polyethylene cross-linked



Dielectric diameter in rounded figures (mm)

⇒ Table:
Standard dielectric Ø

0.83 to 0.87	± 0.07 mm
1.50 to 1.55	± 0.10 mm
2.95	± 0.13 mm
3.70 to 3.75	± 0.15 mm
4.80	± 0.20 mm
6.40	+ 0.10 / - 0.20 mm
7.25	+ 0.15 / - 0.25 mm
11.50	+ 0.15 / - 0.30 mm
17.30	± 0.30 mm



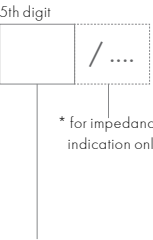
Cable construction

- 0 = core material
- 1 = coaxial cable, screen, with non-standard dielectric diameter
- 2 = coaxial cable, screen, with standard dielectric diameter, see table ⇒
- 3 = triaxial cable
- 4 = triaxial cable, separated with three or more screens
- 7 = twinaxial cable



Jacket

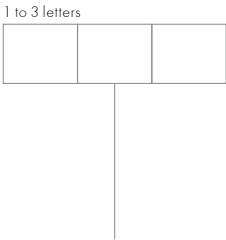
- 0 = no jacket
- 1 = PUR, thermoplast elastomer
- 2 = PA (nylon)
- 3 = PVC
- 5 = FEP/PFA, PI
- 6 = LSFH™ flame retardant
- 7 = PE, RADOX®



Impedance

- 0 = no impedance
- 2 = 50 Ω
- 3 = 75 Ω
- 4 = 60 Ω
- 0 = other impedance values, indicated by the figure after the slash*

* for impedance indication only



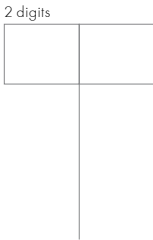
Low noise cables

- HT = PVC semi-conductor
- HG = PE semi-conductor
- HK = PTFE semi-conductor



Additional information

- B = foil and braid screen
- D = double braid screen

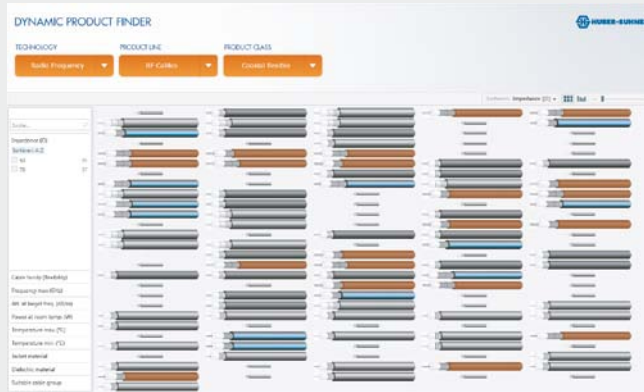


Index

Variations to the basic type

Cable and assembly tools

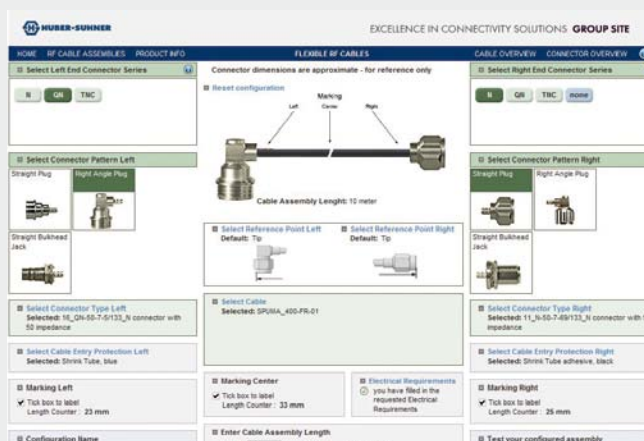
1. EVALUATE with our product finder



By using our «product finder» please choose the suitable cable. You will find this utility on our homepage or with following link:

<http://products.hubersuhner.com>

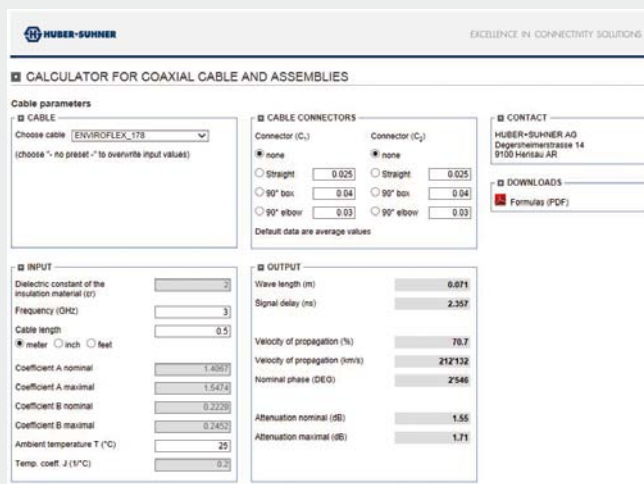
2. CONFIGURE with the assembly configurator



By using the «RF assembly configurator» you can define the suitable assembly. You will find this utility on our homepage or with following link:

<http://rfwebpcf.hubersuhner.com>

3. CALCULATE with the assembly calculator



Define the suitable assembly by using the «RF assembly calculator». You will find this utility on our homepage or with following link:

<http://rfcablecalc.hubersuhner.com>

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

Waiver

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