

Cables and connectors for demanding connectivity solutions



LOW LOSS RF COAX CABLES

single screen 50 Ω — double screen 50 Ω

single screen 75 Ω — double screen 75 Ω

Low loss RF coax cables

single screen

50 Ω

Impedance	50 Ω
Capacitance	82 pF/m
Velocity of signal propagation	82 % of the speed of light
Signal delay	4.1 ns/m
Insulation resistance	>10 ⁸ MΩm
Min. bending radius static	5 x Ø jacket ⑤
Min. bending radius dynamic	15 x Ø jacket ⑤
Temperature range	PVC1: -25 °C to +85 °C PVC2, PETE: -40 °C to +85 °C
Screening effectiveness	≥40 dB up to 2 GHz



H+S type	Article no.		Center conductor ①			Dielectric ②		Screen 1 ③			Screen 2 ④		Jacket ⑤						Cable group*	
		Curves see page	Design	Mat.	Dim. mm	Mat.	Dim. mm	Mat.	Dim. mm	Cover %	Dim.	Cover %	Mat.	Dim. mm	Colour	Weight kg/100 m	Operating voltage kV	Max. operation frequency	crimp	clamp
S 02112-03	23008453	22 and 23	Strand-19	Cu	0.81	SPE	2.10	CuSn	2.62	92	–	–	PETE ³⁾	3.15	black	2.10	0.25	3	S9B ^{a)}	–
S 02132	22511624		Strand-19	StCu	0.94	SPE	2.30	CuSn	2.90	96	–	–	PVC2 ²⁾	4.50	black	2.80	0.35	2	S7	–
S 03232	22511682		Wire	Cu	1.14	SPE	2.95	Cu	3.60	95	–	–	PVC2 ²⁾	5.00	black	3.80	0.45	1	U8	–
S 03232-01	22610021		Strand-07	Cu	1.20	SPE	2.95	Cu	3.60	95	–	–	PVC2 ²⁾	5.00	black	3.80	0.45	1	U8	–
S 06132	22511628		Strand-07	Cu	2.25	SPE	5.85	Cu	6.55	94	–	–	PVC2 ²⁾	8.15	black	9.20	0.75	1	S25	–
S 07232	22510389		Wire	Cu	2.68	SPE	7.25	Cu	8.15	95	–	–	PVC2 ²⁾	10.30	black	15.30	1.05	1	U30	U31
S 07232-01	22510410		Strand-07	Cu	2.85	SPE	7.25	Cu	8.15	95	–	–	PVC2 ²⁾	10.30	black	14.90	1.05	1	–	U31

* for suitable connectors

a) ARC automotive type

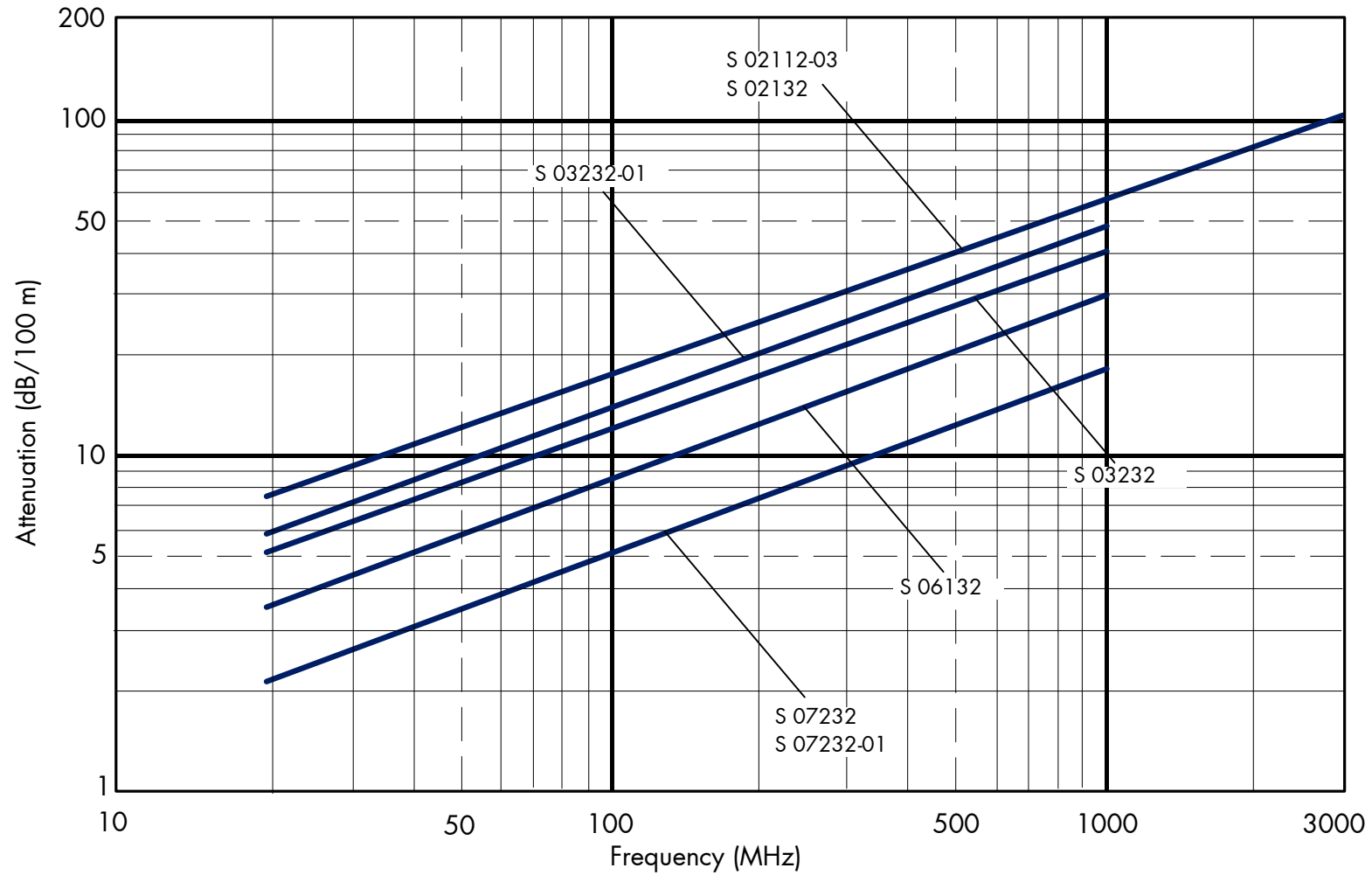
2) HUBER+SUHNER delivers all PVC jacketed coax cables leadfree, according to WEEE directive.

3) TPE (TEEE) Hytel® from DuPont

Attenuation

Low loss RF coax cables, single screen, 50 Ω

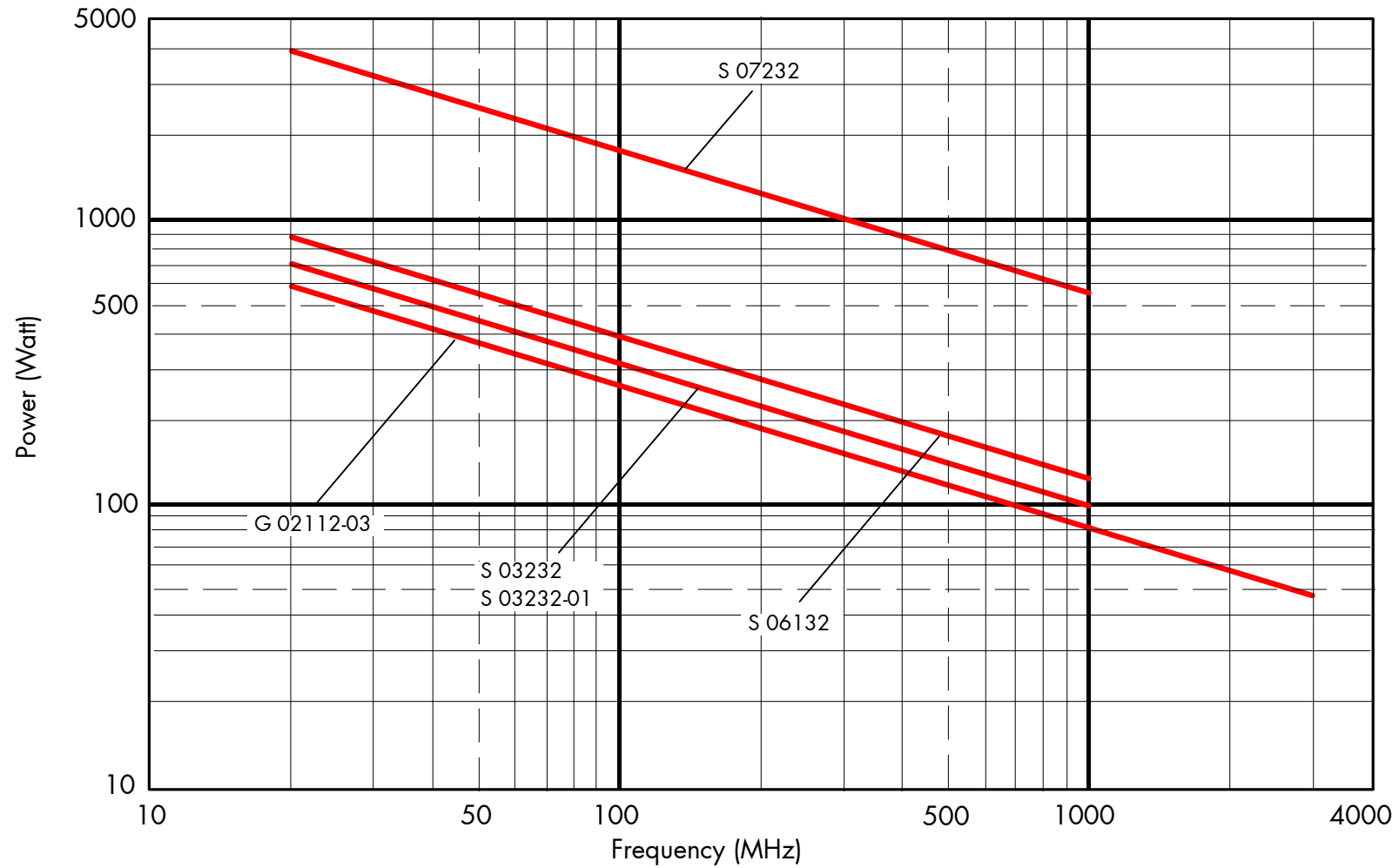
typical values at 20 °C ambient temperature



Power

Low loss RF coax cables, single screen, 50 Ω

typical values at 40 °C ambient temperature

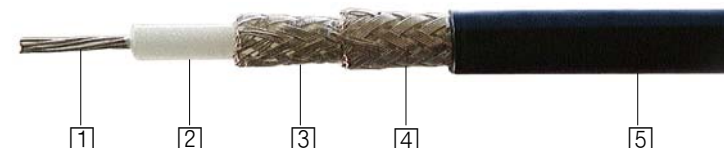


Low loss RF coax cables

double screen

50 Ω

Impedance	50 Ω
Capacitance	82 pF/m
Velocity of signal propagation	82 % of the speed of light
Signal delay	4.1 ns/m
Insulation resistance	>10 ⁸ MΩm
Min. bending radius static	5 x Ø/with foil 10 x Ø jacket 5
Min. bending radius dynamic	15 x Ø/with foil 20 x Ø jacket 5
Temperature range standard cables	-40 °C to +85 °C
Screening effectiveness	≥80 dB up to 6 GHz



H+S type	Article no.		Center conductor 1			Dielectric 2		Screen 1 3			Screen 2 4		Jacket 5						Cable group*	
		Curves see page	Design	Mat.	Dim. mm	Mat.	Dim. mm	Mat.	Dim. mm	Cover %	Dim.	Cover %	Mat.	Dim. mm	Colour	Weight kg/100 m	Operating voltage kV	Max. operation frequency	crimp	clamp
S 01112 D	22512129	26 and 27	Strand-07	Cu	0.54	SPE	1.32	CuSn	1.70	92	2.20	95	TPE ¹⁾	2.55	black	1.30	0.20	6	–	–
S 02112 D	22511910		Strand-19	CuSn	0.94	SPE	2.36	Cu	2.90	96	3.50	85	PUR ¹⁾	4.50	black	3.70	0.35	6	S8	–
S 02132 D	22511625		Wire	CuAg	0.88	SPE	2.36	CuAg	2.95	92	3.60	96	PVC2 ²⁾	4.80	black	4.50	0.35	6	S8	–
S 02162 B	22512310		Strand-07	Cu	0.80	SPE	2.10	Al-PES	2.15	100	2.67	92	LSFH ¹⁾	3.15	black	2.10	0.25	6	S9	–
S 03212 D-02	23005520		Wire	CuAg	1.10	SPE	2.96	CuAg	3.55	95	4.13	95	PETE ³⁾	5.40	black	5.43	0.45	6	–	–
S 03232 B-04 ^{a)}	22512116		Wire	CuAg	1.10	SPE	2.96	Al-PETP	3.05	100	3.80	100	UL-PVC	5.00	black	3.90	0.40	5	–	–
S 04172 D	22511598		Wire	CuAg	1.40	SPE	3.78	CuAg	4.20	96	4.70	96	PE ¹⁾	5.70	black	5.50	0.55	5	S16	–
S 04262 D	22511966		Wire	CuAg	1.40	SPE	3.78	CuAg	4.20	96	4.70	96	LSFH ¹⁾	5.70	black	5.50	0.50	6	S16	–
S 04262 D-02	22512107		Strand-19	CuAg	1.42	SPE	3.70	CuAg	4.35	92	5.25	92	LSFH ¹⁾	6.50	black	6.80	0.50	6	–	–
S 04262 D-03	22512246		Wire	CuAg	1.40	SPE	3.78	CuAg	4.20	96	4.70	96	LSFH ¹⁾	5.70	black	5.50	0.50	6	S16	–

^{a)} fulfills UL 1581 1080 VW-1 flame propagation test

³⁾ TPE (TEEE) Hytel® from DuPont

Low loss RF coax cables

double screen

50 Ω

H+S type	Article no.		Center conductor ①			Dielectric ②		Screen 1 ③			Screen 2 ④		Jacket ⑤						Cable group*	
		Curves see page	Design	Mat.	Dim. mm	Mat.	Dim. mm	Mat.	Dim. mm	Cover %	Dim.	Cover %	Mat.	Dim. mm	Colour	Weight kg/ 100 m	Operating voltage kV	Max. operation frequency	crimp	clamp
S 06132 D-10	22511629	26 and 27	Strand-07	CuAg	2.25	SPE	5.80	CuAg	6.55	94	7.25	96	PVC2 ²⁾	8.95	black	13.10	0.75	4	S26	–
S 06162 D-02	22511923		Wire	CuAg	2.05	SPE	5.60	CuAg	6.10	93	6.75	85	LSFH ¹⁾	7.90	black	11.00	0.75	6	S24	–
S 07212 BD	22511864		Strand-07	CuAg	2.82	SPE	7.35	CuAg	8.00	96	8.10	100	PUR ¹⁾	10.80	black	20.60	1.05	3	S32	–
S 07262 BD	22511767		Strand-07	CuAg	2.82	SPE	7.35	CuAg	8.00	96	8.10	100	LSFH ¹⁾	10.80	black	20.60	1.05	3	S32	–
S 07262 BD-02	22512130		Strand-07	CuAg	2.82	SPE	7.35	CuAg	8.00	96	8.10	100	LSFH ¹⁾	10.80	yellow	20.60	1.05	3	S32	–
S 10162 B-11	23002145		Wire	CuAl	3.78	SPE	9.75	Cu	9.85	100	10.70	100	LSFH ¹⁾	12.90	black	15.00	1.50	7.50	S39	–
S 10172 B-11	22512320		Wire	CuAl	3.78	SPE	9.75	Cu	9.85	100	10.70	100	PE ¹⁾	12.90	black	15.00	1.50	7.50	S39	–
S 12272-04	22510390		Wire	CuAl	4.25	SPE	11.50	Cu	11.55	100	12.50	60	PE ¹⁾	15.00	black	19.10	1.70	10.00	U40	–

* for suitable connectors

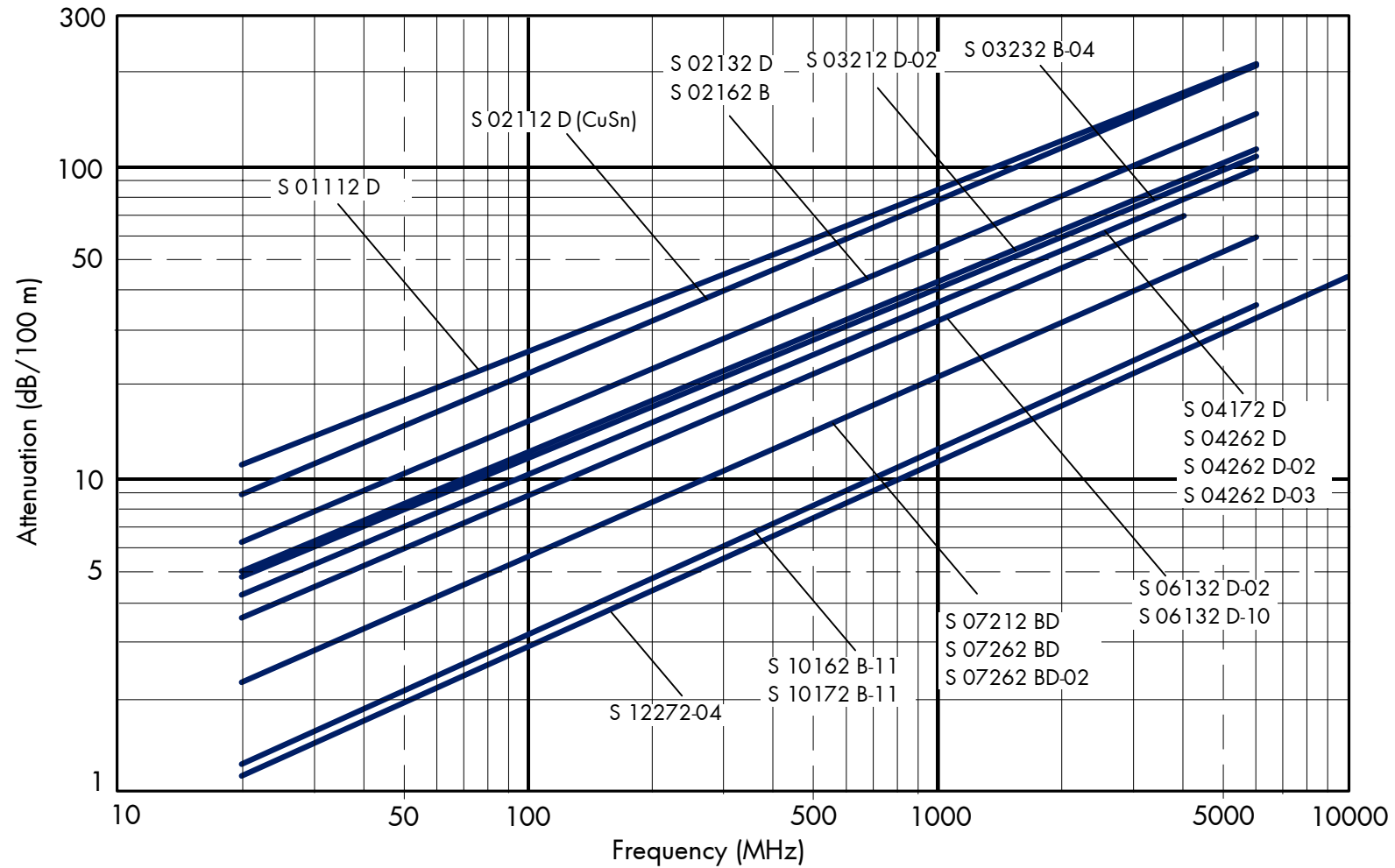
¹⁾ Low Smoke Free of Halogen (LSFH) acc. waste electrical and electronic equipment (WEEE) and restriction of the use of certain hazardous substances (RoHS) directive.

²⁾ HUBER+SÜHNER delivers all PVC jacketed coax cables leadfree, according to WEEE directive.

Attenuation

Low loss RF coax cables, double screen, 50 Ω

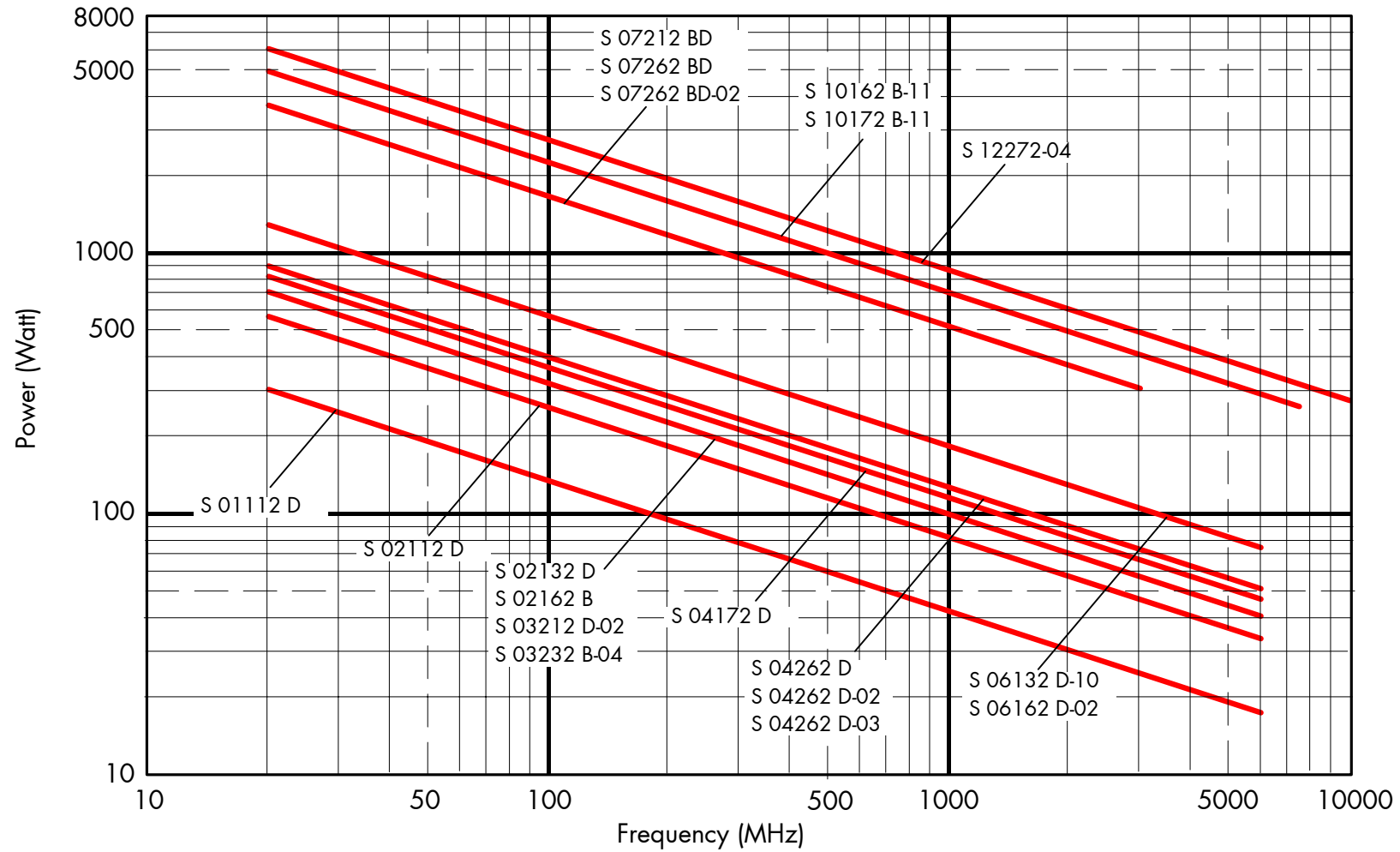
typical values at 20 °C ambient temperature



Power

Low loss RF coax cables, double screen, 50 Ω

typical values at 40 °C ambient temperature



Low loss RF coax cables

single screen

75 Ω

Impedance	75 Ω
Capacitance	55 pF/m
Velocity of signal propagation	82 % of the speed of light
Signal delay	4.1 ns/m
Insulation resistance	> 10 ⁸ MΩm
Min. bending radius static	5 x Ø jacket ⑤
Min. bending radius dynamic	15 x Ø jacket ⑤
Temperature range	PVC1: -25 °C to +85 °C LSFH: -40 °C to +85 °C
Screening effectiveness	≥40 dB up to 1 GHz



H+S type	Article no.		Center conductor ①			Dielectric ②		Screen 1 ③			Screen 2 ④			Jacket ⑤						Cable group*	
		Curves see page	Design	Mat.	Dim. mm	Mat.	Dim. mm	Mat.	Dim. mm	Cover %	Mat.	Dim. mm	Cover %	Mat.	Dim. mm	Colour	Weight kg/ 100 m	Operating voltage kV	Max. operation frequency	crimp	clamp
S 02223	22511273	29 and 30	Wire	Cu	0.35	SPE	1.55	Cu	2.00	94	–	–	–	PVC ²⁾	2.55	black	1.10	0.20	1	S5	U2
S 02223-04	22511788		Wire	Cu	0.35	SPE	1.55	Cu	2.00	94	–	–	–	PVC ²⁾	2.55	yellow	1.10	0.20	1	S5	U2
S 03133-01	22511626		Wire	StCu	0.58	SPE	2.55	Cu	3.20	94	–	–	–	PVC ²⁾	4.50	black	2.70	0.35	1	S10	–
S 04233	22610020		Wire	Cu	0.83	SPE	3.70	Cu	4.35	92	–	–	–	PVC ²⁾	6.10	black	4.30	0.50	1	U17	U15
S 04263	22511856		Wire	Cu	0.83	SPE	3.70	Cu	4.35	92	–	–	–	LSFH ¹⁾	6.10	black	4.70	0.50	1	U17	U15

* for suitable connectors

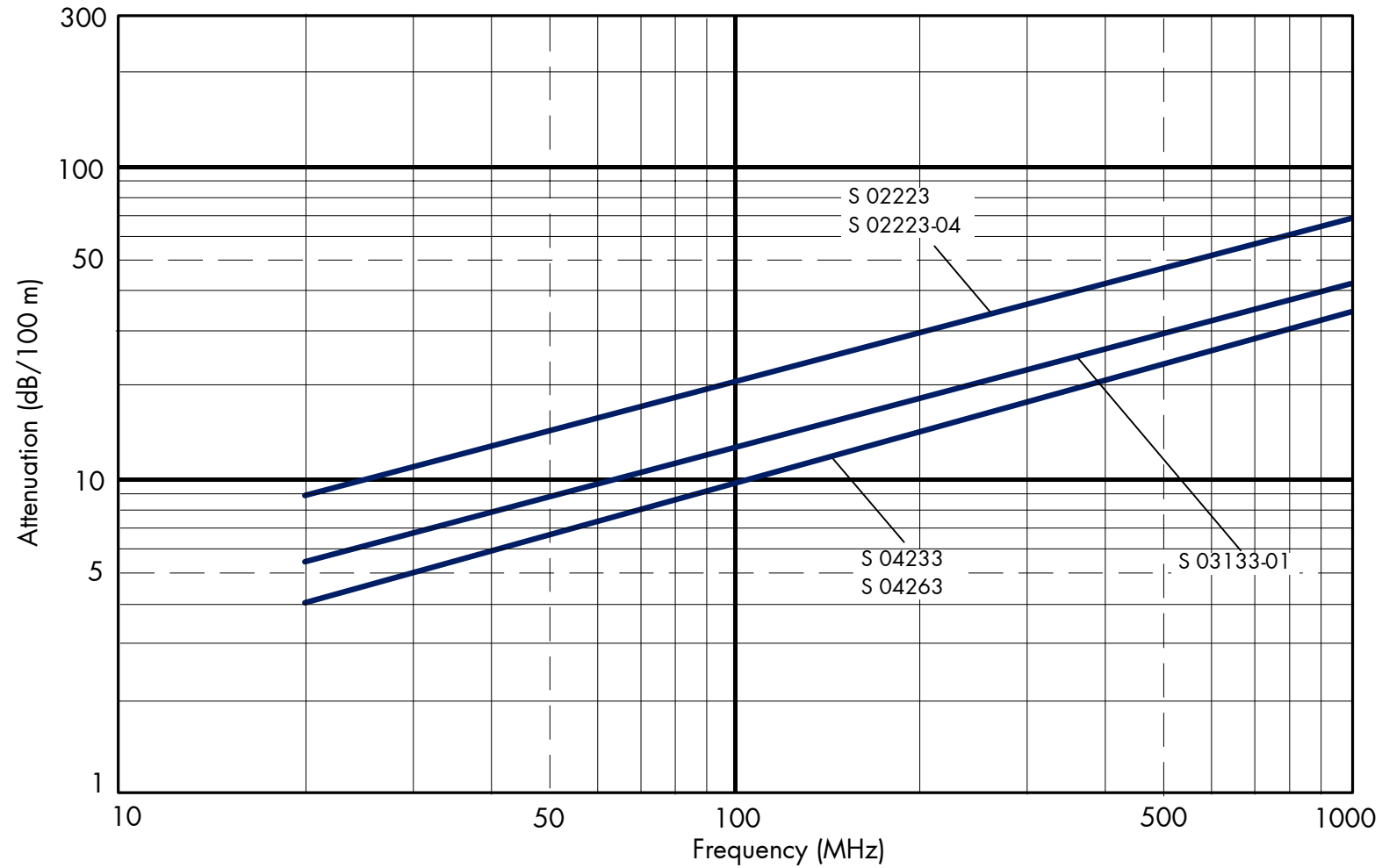
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²⁾ HUBER+SUHNER delivers all PVC jacketed coax cables leadfree, according to WEEE directive.

Attenuation

Low loss RF coax cables, single screen, 75 Ω

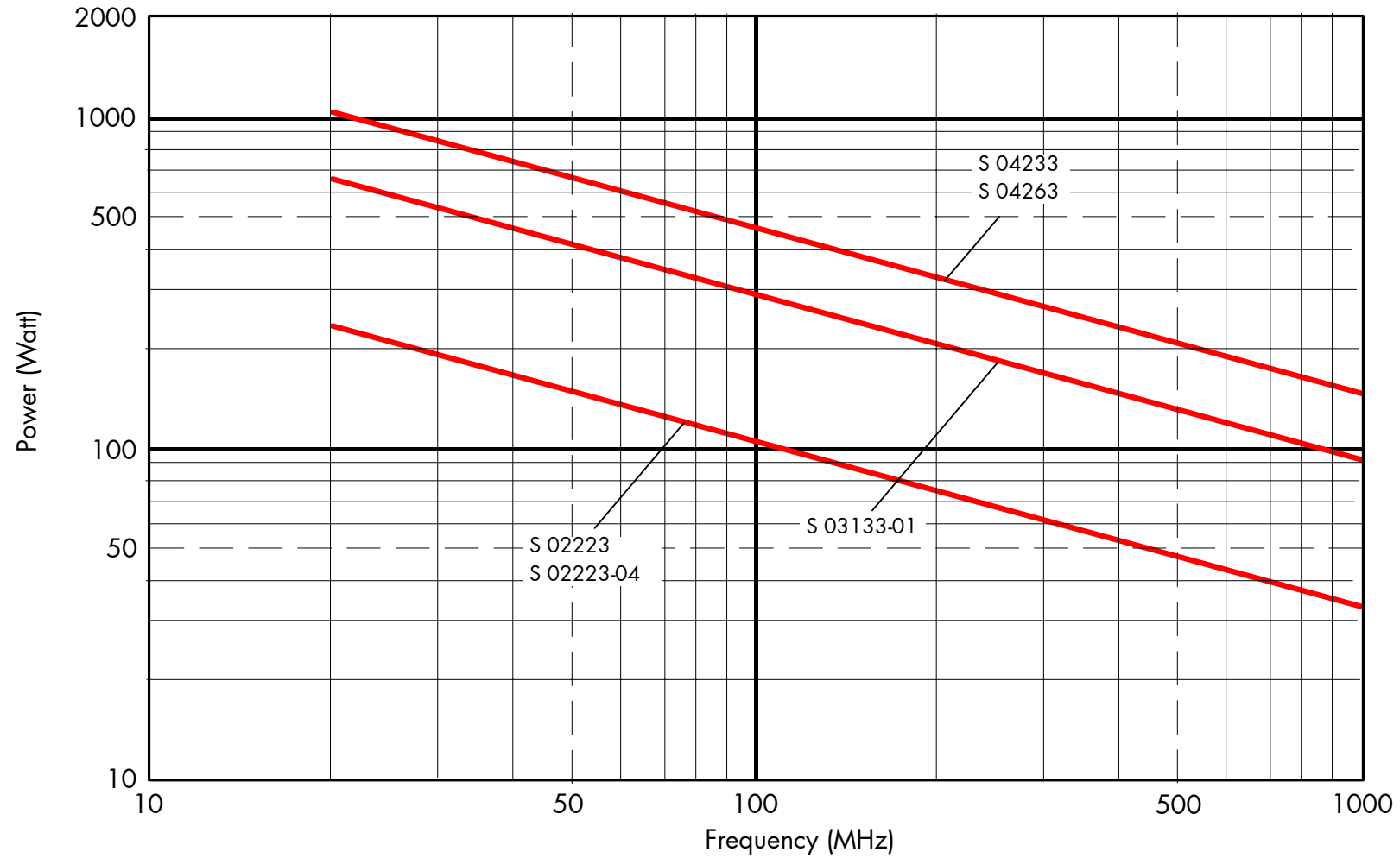
typical values at 20 °C ambient temperature



Power

Low loss RF coax cables, single screen, 75 Ω

typical values at 40 °C ambient temperature

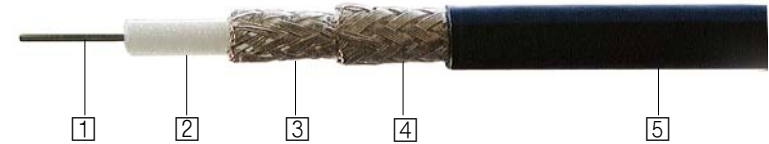


Low loss RF coax cables

double screen

75 Ω

Impedance	75 Ω
Capacitance	55 pF/m
Velocity of signal propagation	82 % of the speed of light
Signal delay	4.1 ns/m
Insulation resistance	> 10 ⁸ MΩm
Min. bending radius static	5 x Ø/with foil 10 x Ø jacket 5
Min. bending radius dynamic	15 x Ø/with foil 20 x Ø jacket 5
Temperature range standard cables	-40 °C (-25 °C PVC) to +85 °C
Screening effectiveness	≥40 dB up to 1 GHz



H+S type	Article no.		Center conductor 1			Dielectric 2		Screen 1 3			Screen 2 4			Jacket 5						Cable group*	
		Curves see page	Design	Mat.	Dim. mm	Mat.	Dim. mm	Mat.	Dim. mm	Cover %	Mat.	Dim. mm	Cover %	Mat.	Dim. mm	Colour	Weight kg/100 m	Operating voltage kV	Max. operation frequency	crimp	clamp
S 02133 B-03	22511888	32 and 33	Wire	CuSr	0.45	SPE	1.95	Al-PES	2.10	100	CuSn	2.55	84	PVC ²⁾	3.40	grey	1.70	0.40	2	-	-
S 02133 B-05	22511912		Wire	CuAg	0.45	SPE	1.95	Al	2.10	100	CuSn	2.55	84	PVC ²⁾	3.40	black	1.70	0.40	2	-	-
S 03133 D-06	22511879		Wire	Cu	0.62	SPE	2.82	Al	2.90	100	CuSn	3.55	82	PVC ²⁾	4.30	grey	4.20	0.25	2	-	-
S 05163-02	23003405		Wire	Cu	1.00	SPE	4.57	Al-PES	4.65	100	CuSn	5.40	66	LSFH ¹⁾	6.90	black	5.30	0.50	2	-	-
S 07233 B-60 ^{a)}	22511786		Wire	Cu	1.57	SPE	7.25	Al-PETP	7.30	100	CuSn	8.10	89	UL-PVC	10.30	black	12.40	1.00	2	-	-
S 07273-01	22510550		Wire	StCu	1.57	SPE	7.25	Al-PES	7.45	100	CuSn	8.10	44	PE ¹⁾	10.00	black	7.90	1.00	2	-	-

* for suitable connectors

a) UL listed style 1354

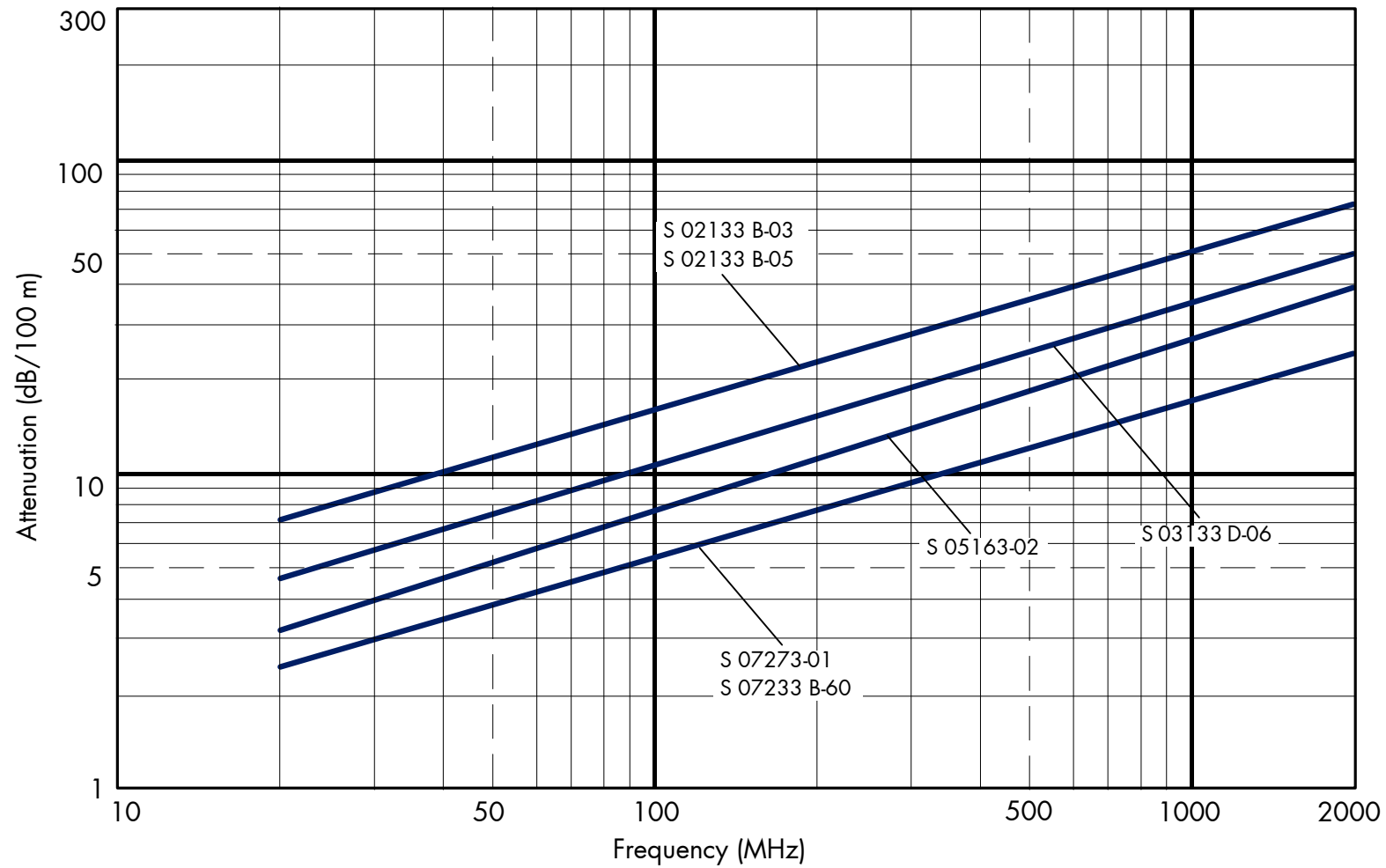
¹⁾ Low Smoke Free of Halogen (LSFH) acc. waste electrical and electronic equipment (WEEE) and restriction of the use of certain hazardous substances (RoHS) directive.

²⁾ HUBER+SUHNER delivers all PVC jacketed coax cables leadfree, according to WEEE directive.

Attenuation

Low loss RF coax cables, double screen, 75 Ω

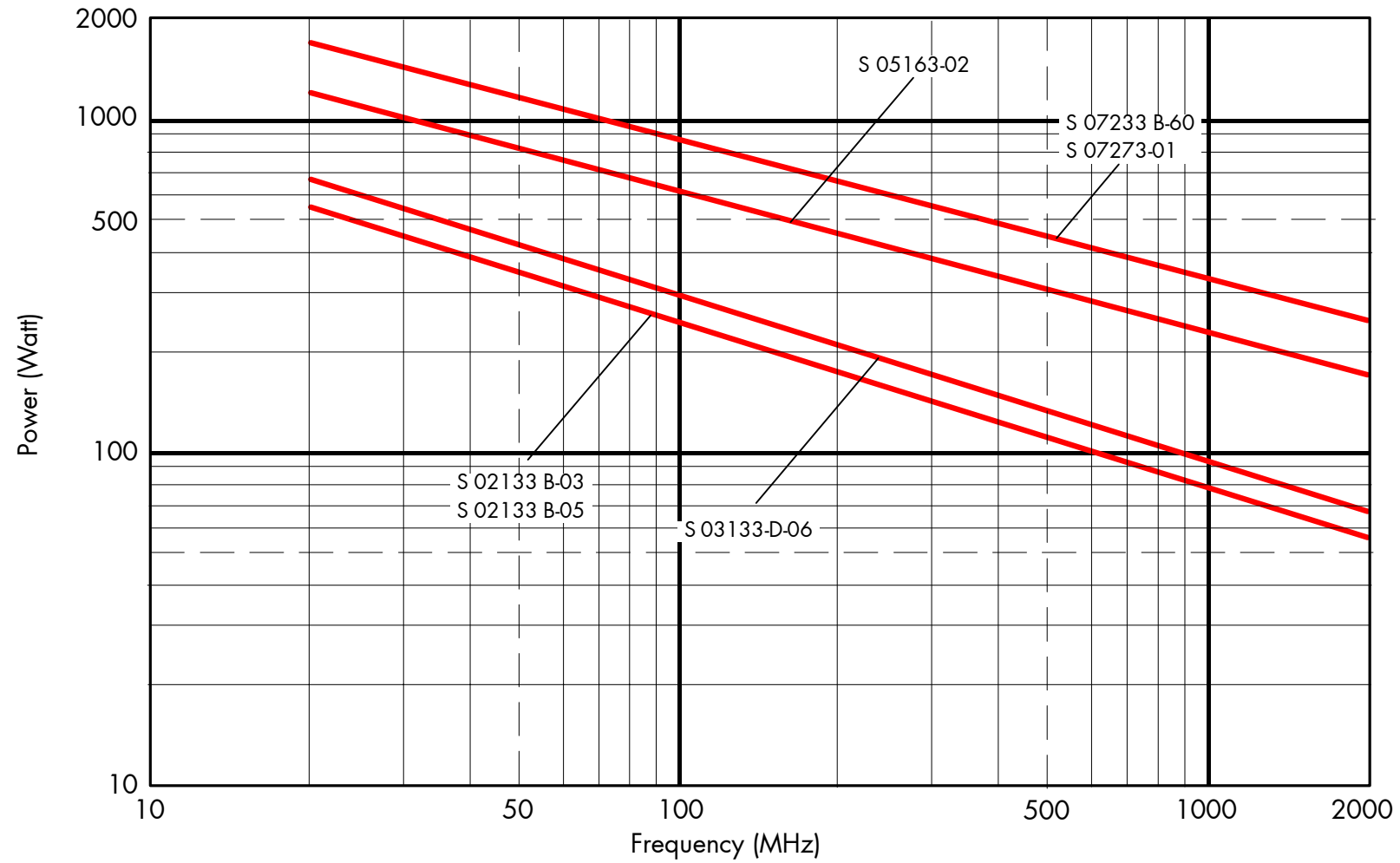
typical values at 20 °C ambient temperature



Power

Low loss RF coax cables, double screen, 75 Ω

typical values at 40 °C ambient temperature



Low phase vs temperature RF coax cables

double screen

50 Ω

Impedance	50 Ω
Insulation resistance	>10 ⁸ MΩm
Min. bending radius static	5 x Ø outer diameter 5
Min. bending radius dynamic	15 x Ø outer diameter 5
Temperature range S types	-25 °C to +85 °C
Temperature range EF type	-25 °C to +105 °C



H+S type	Article no.	Center conductor 1			Dielectric 2		Screen 1 3			Screen 2 4			Jacket 5								Cable group*	
		Design	Mat.	Dim. mm	Mat.	Dim. mm	Mat.	Dim. mm	Cover %	Mat.	Dim. mm	Cover %	Mat.	Dim. mm	Colour	Weight kg/100 m	Operating voltage kV	Max. oper. freq.	Shield effect.	Max. phase vs temperat.	crimp	clamp
S 04272 B a)	22511622	Wire	CuAg	1.40	SPE	3.82	Al	3.96	100	CuSn	4.48	86	PE ¹⁾	5.50	blue	4.40	0.50	18	90	981 ppm	–	–
S 04212 B a)	22511855	Wire	CuAg	1.40	SPE	3.82	Al	3.96	100	CuSn	4.48	86	PUR ¹⁾	5.30	black	4.10	0.50	18	90	437 ppm	–	–
S 07262 BD b)	22511767	Strand -07	CuAg	2.82	SPE	7.35	CuAg	8.00	96	Cu	8.10	100	LSFH ¹⁾	10.80	black	20.60	1.05	3	105	2500 ppm	S32	–
S 10162 B-11 b)	23002145	Wire	CuAl	3.78	SPE	9.75	Cu	9.85	100	Cu	10.70	80	LSFH ¹⁾	12.90	black	15.00	1.50	8.5	90	4500 ppm	S39	
S 10172 B-11 b)	22512320	Wire	CuAl	3.78	SPE	9.75	Cu	9.85	100	Cu	10.70	80	PE ¹⁾	12.90	black	15.00	1.50	8.5	90	4500 ppm	S39	
EF 393 (see page 68)	22512282	Strand -07	CuAg	2.46	SPEX	7.33	CuAg	8.75	92	CuAg	8.75	94	RADOX ¹⁾	10.10	black/blue	18.00	5.00	6.0	71	3200 ppm	–	U33

* for suitable connectors

a) for further technical data and suitable connectors see MICROWAVE CABLES AND ASSEMBLIES GENERAL CATALOGUE, order no. 23012500

b) see Power and Data Distribution Cables on pages 126 and 127.

¹⁾ Low Smoke Free of Halogen (LSFH) acc. waste electrical and electronic equipment (WEEE) and restriction of the use of certain hazardous substances (RoHS) directive.

Phase change vs temperature S 07262 BD

