

Overview SUCOFLEX® 100

The high performance microwave cable assembly

Product description

SUCOFLEX 100 series flexible microwave cable assemblies offer superior electrical and mechanical performance for static and dynamic applications.

This series is a high-end product designed to provide optimal performance up to 50 GHz, where stringent electrical requirements – in particular stability and low loss – are important.

Their mechanical and climate resistance properties surpass those of standard flexible cables. This cable type is ideally suited to test and measurement applications (as test leads) and used in aerospace and defence systems.



Product features

- The cable maintains stable electrical characteristics when exposed to bending and temperature, enabling reliable test results
- A balanced range of connectors is available, including types which feature NWA-specific interfaces
- Can be provided with various ruggedisations to protect the assembly against different environmental influences
- Available as assembly only

Recommended connectors

SF101 / SF101P	SMA, SK, PC2.4
SF102	SMA, BMA, N, TNC, PC3.5, SK, PC2.4
SF103	BNC, SMA, BMA, N, TNC, PC7, PC3.5
SF126 SF104	BNC, 7/16, SMA, BMA, QMA, TNC, N, QN, PC7, PC3.5
SF106 SF106P	7/16, SMA, N, QN, TNC
	Other connectors available on request

Technical data

HUBER+SUHNER cable type	Operating frequency	Temperature range		Outer diameter mm	Nominal atten. 18 GHz, 25 °C dB/m	Bending radii		Weight g/m	More information see page
	GHz	minimum °C	maximum °C			static mm	dyn. mm		
SUCOFLEX_101	50	-55	+125	3.7	2.0	11	20	36	16
SUCOFLEX_101_P	50	-55	+125	3.7	3.0	11	20	33	16
SUCOFLEX_101_PE	50	-40	+85	3.7	3.0	11	20	30	16
SUCOFLEX_102	46	-55	+125	4.0	1.7	12	20	40	20
SUCOFLEX_102_I	46	-40	+85	4.0	1.7	12	20	36	on request
SUCOFLEX_103	33	-55	+125	4.6	1.3	13	22	53	24
SUCOFLEX_103_I	33	-40	+85	4.8	1.3	13	20	53	on request
SUCOFLEX_104	26.5	-55	+125	5.5	1.1	16	25	84	28
SUCOFLEX_104_I	26.5	-40	+85	6.6	1.1	16	25	82	on request
SUCOFLEX_126	26.5	-55	+125	5.5	1.1	16	25	84	34
SUCOFLEX_126_E	26.5	-40	+85	5.5	1.1	16	25	83	34
SUCOFLEX_106	18	-55	+125	7.9	0.8	24	40	157	38
SUCOFLEX_106_P	18	-55	+125	7.9	1.3	24	40	158	38
SUCOFLEX_106_I	18	-40	+85	8.2	0.8	24	40	144	34

SUCOFLEX® 101

The high performance microwave cable assembly working up to 50 GHz

Product description

The SUCOFLEX 101 high end cable assemblies are designed to provide optimal performance up to 50 GHz where stringent electrical requirements – in particular stability and low loss, are important. Their mechanical and climate resistance properties surpass those of standard flexible cable. Additionally protected by an A ruggedisation, the SUCOFLEX 101PE becomes a flexible test and measurement cable up to 50 GHz!



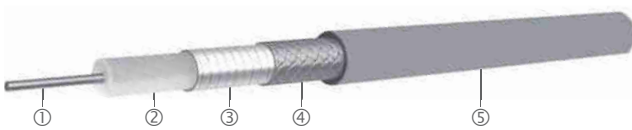
Product features

- Impedance 50 Ω
- Applicable up to 50 GHz
- High stability and low loss
- Wide range of connectors
- VNA-specific connectors

Recommended connectors

SF101 SF101P	SMA, SK, PC2.4
	Other connectors available on request

Construction



SF 101/101E/101P/101PE





SF 101EA/PEA

Cable	Inner conductor ①	Dielectric ②	Outer conductor ③ ④	Jacket ⑤	Ruggedisation ⑥	Outer diameter mm
SUCOFLEX_101	CuAg wire	LD-PTFE	CuAg tape/braid	FEP, blue	no	3.7
SUCOFLEX_101_E	CuAg wire	LD-PTFE	CuAg tape/braid	PUR, blue	no	3.7
SUCOFLEX_101_P	CuAg strand	LD-PTFE	CuAg tape/braid	FEP, blue	no	3.7
SUCOFLEX_101_PE	CuAg strand	LD-PTFE	CuAg tape/braid	PUR, blue	no	3.7
SUCOFLEX_101_EA	CuAg wire	LD-PTFE	CuAg tape/braid	PUR	stainless steel/ PUR, blue	7.7
SUCOFLEX_101_PEA	CuAg strand	LD-PTFE	CuAg tape/braid	PUR	stainless steel/ PUR, blue	7.7

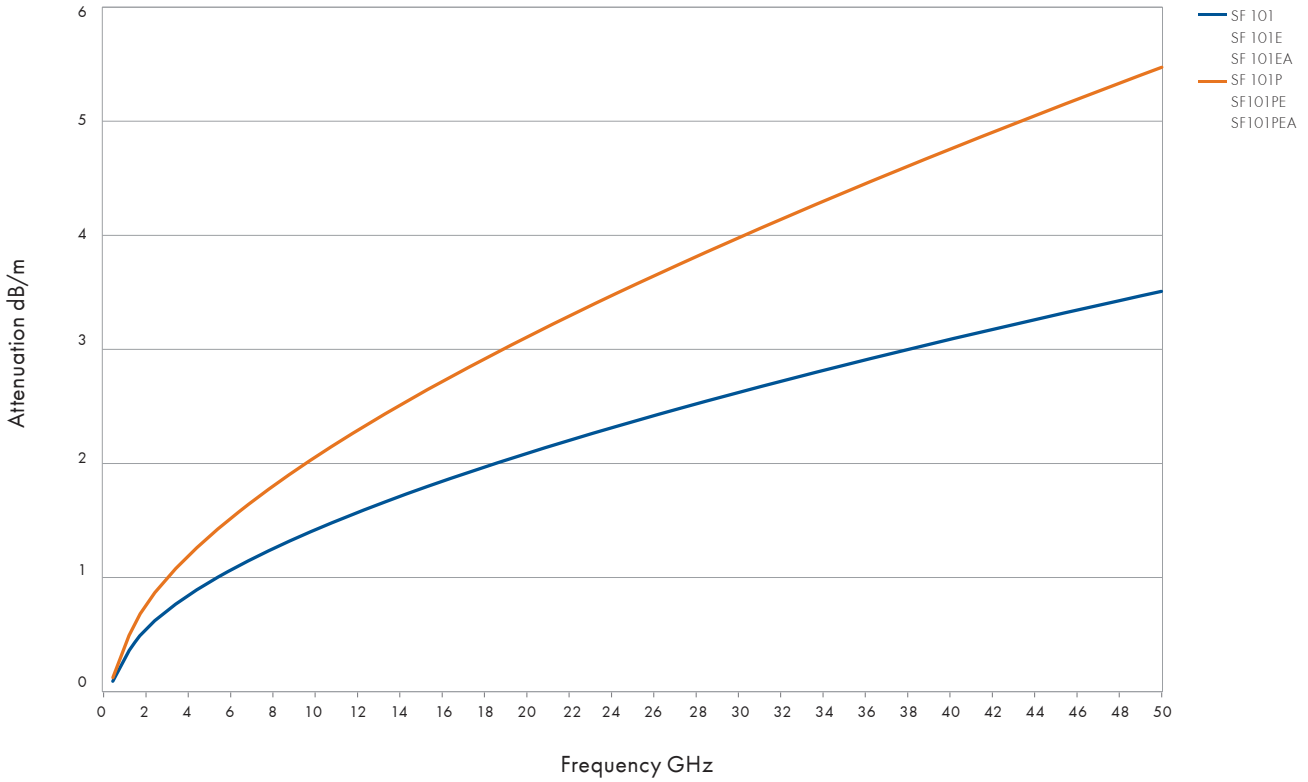
SUCOFLEX® 101

Assembly types

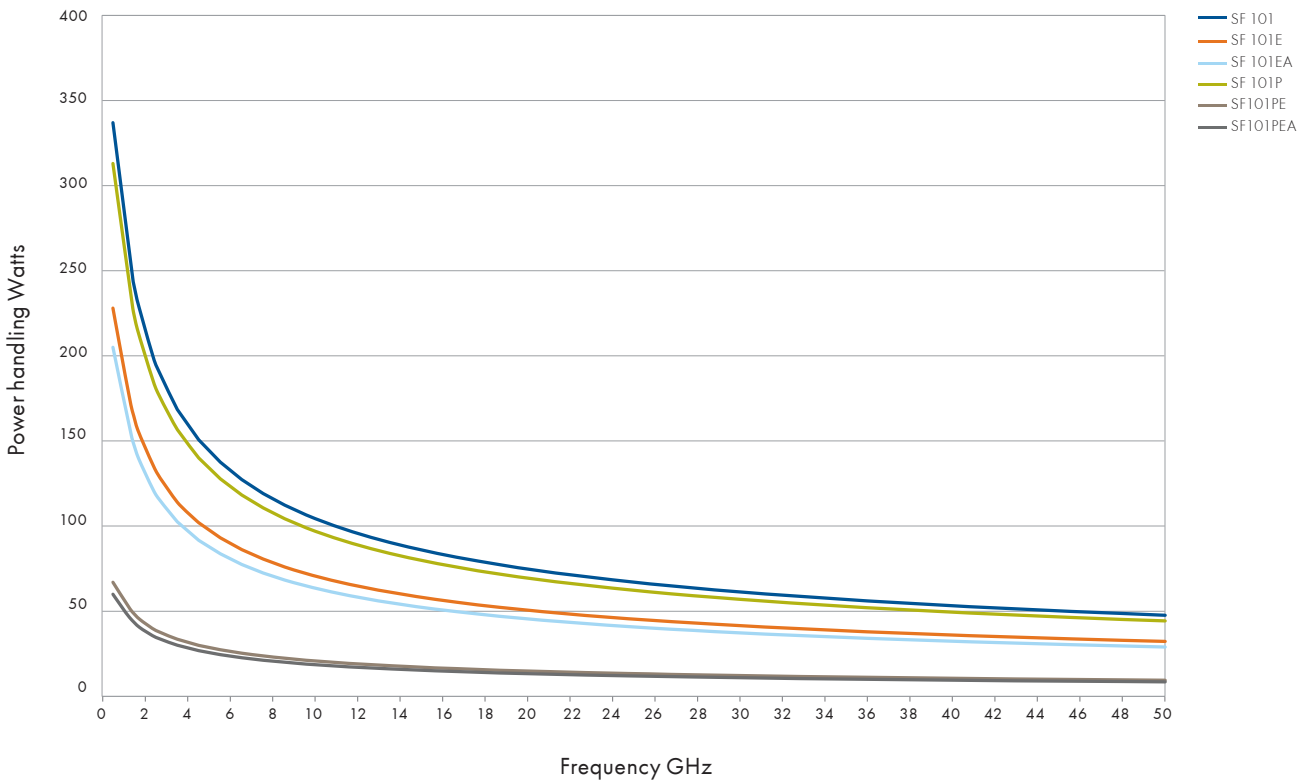
		SUCOFLEX 101	SUCOFLEX 101E	SUCOFLEX 101P	SUCOFLEX 101PE	SUCOFLEX 101EA	SUCOFLEX 101PEA
Construction							
Max. operating frequency	GHz	50	50	50	50	50	50
Application		static	static	dynamic	dynamic	static	dynamic
Velocity of propagation	%	77	77	77	77	77	77
Weight	g/m	36	33	33	30	114	111
Min. bending radius static	mm	11	11	11	11	20	20
Min. bending radius repeated	mm	20	20	20	20	40	40
Temperature range	°C	-55 to +125	-40 to +85	-55 to +125	-40 to +85	-40 to +85	-40 to +85
Crush resistance	kN/m	8	8	8	8	80	80
Tensile load	N	100	100	100	100	400	400
Inner conductor		solid wire	solid wire	strand	strand	solid wire	strand
Dielectric		LD-PTFE	LD-PTFE	LD-PTFE	LD-PTFE	LD-PTFE	LD-PTFE
Outer conductor		tape/braid	tape/braid	tape/braid	tape/braid	tape/braid	tape/braid
Jacket		FEP	PUR	FEP	PUR	PUR	PUR
Ruggedisation		no	no	no	no	stainless steel/ PUR	stainless steel/ PUR
Outer diameter	mm	3.7	3.7	3.7	3.7	7.7	7.7
Screening effectiveness (up to 18 GHz)	dB	> 90	> 90	> 90	> 90	> 90	> 90
Phase stability vs. flexure (360°, diameter 40 mm)	°el/GHz	< 1.2	< 1.2	< 0.9	< 0.9	< 1.2	< 0.9
Phase stability vs. temperature (-40 to +85 °C)	ppm	< 1500	< 1500	< 1500	< 1500	< 1500	< 1500
Assembly phase matching tolerances	°el/GHz	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5
Cable attenuation at 25 °C	dB/m	see graph	see graph	see graph	see graph	see graph	see graph
Insertion loss stability vs. bending	dB	± 0.2	± 0.2	± 0.2	± 0.2	± 0.2	± 0.2
Insertion loss stability vs. temperature	%/°C	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Insertion loss stability vs. shaking	dB	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1
Power handling	watt	see graph	see graph	see graph	see graph	see graph	see graph

SUCOFLEX® 101

Attenuation (nominal values at +25 °C ambient temperature)



Power handling (maximum values at 25 °C ambient temperature and sea level)



SUCOFLEX® 101

Available connectors

Connector	Series, pattern	HUBER+SUHNER connector type	SF101 SF101E	SF101EA	SF101P SF101PE	SF101PEA	Op. freq. GHz	VSWR per connector	Remarks
DV	straight cable plug	11_DV-112				•	50	1.20	2.4 mm connector for Agilent Technologies Instrument
SK	straight cable plug	11_SK-100			•		40	1.20	
	straight cable plug	11_SK-110				•	40	1.20	
	straight cable jack	21_SK-110				•	40	1.20	
PC 2.4	straight cable plug	11_PC2.4-104	•				50	1.20	
	straight cable plug	11_PC2.4-107			•		50	1.20	
	straight cable plug	11_PC2.4-109		•			50	1.20	
	straight cable plug	11_PC2.4-110				•	50	1.20	
	straight cable jack	21_PC2.4-104	•				50	1.20	
	straight cable jack	21_PC2.4-107			•		50	1.20	
	straight cable jack	21_PC2.4-109		•			50	1.20	
	straight cable jack	21_PC2.4-110				•	50	1.20	
	straight panel bulkhead cable jack	24_PC2.4-102	•				50	1.20	ML 38
SMA	straight cable plug	11_SMA-153			•		18 26.5	1.12 1.20	
	straight cable plug	11_SMA-190	•				18 26.5		

Stock assemblies

Item no.	Type	Length mm	Frequency GHz	Max. insertion loss at 25 °C dB	Max. VSWR	RoHS compliant
SUCOFLEX_101						
85026753	SF101/PC24m/PC24m/500 mm	500	50	2.29	1.44	yes
SUCOFLEX_101_EA (armoured)						
85026754	SF101EA/PC24m/PC24m/500 mm	500	50	2.29	1.44	yes

SUCOFLEX® 102

The high performance microwave cable assembly working up to 46 GHz

Product description

SUCOFLEX 102 are ideal for applications up to 46 GHz or wherever the weight or the diameter are the critical factors to be taken into account. The connectors mainly used here are PC2.4 and SK, for «low frequency» applications also SMA, N and TNC. Typical applications include test laboratories and aircraft manufacture. The available ruggedisations are matched to the particular applications.



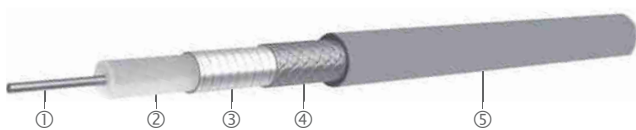
Product features

- Impedance 50 Ω
- Applicable up to 46 GHz
- High stability and low loss
- Wide range of connectors
- LSFH jacket and further ruggedisations on request

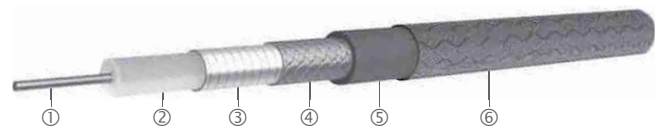
Recommended connectors

SF102	SMA, N, TNC, PC3.5, SK, PC2.4
	Other connectors available on request

Construction



SF 102/102E



SF 102D






SF 102EA

Cable	Inner conductor ①	Dielectric ②	Outer conductor ③ ④	Jacket ⑤	Ruggedisation ⑥	Outer diameter mm
SUCOFLEX_102	CuAg wire	LD-PTFE	CuAg tape/braid	FEP, blue	no	4.0
SUCOFLEX_102_E	CuAg wire	LD-PTFE	CuAg tape/braid	PUR, blue	no	4.0
SUCOFLEX_102_D	CuAg wire	LD-PTFE	CuAg tape/braid	FEP	aramid yarn braid, blue	4.6
SUCOFLEX_102_EA	CuAg wire	LD-PTFE	CuAg tape/braid	PUR	stainless steel/ PUR, blue	7.7

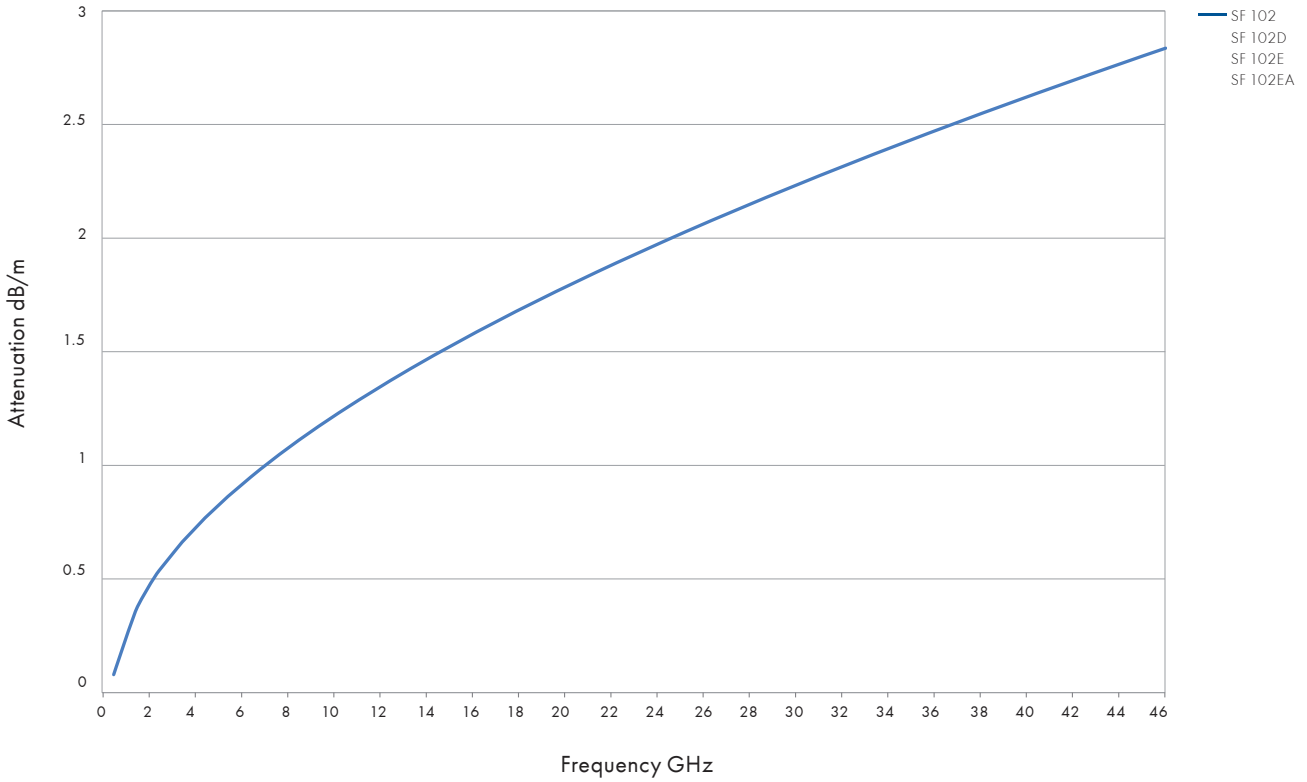
SUCOFLEX® 102

Assembly types

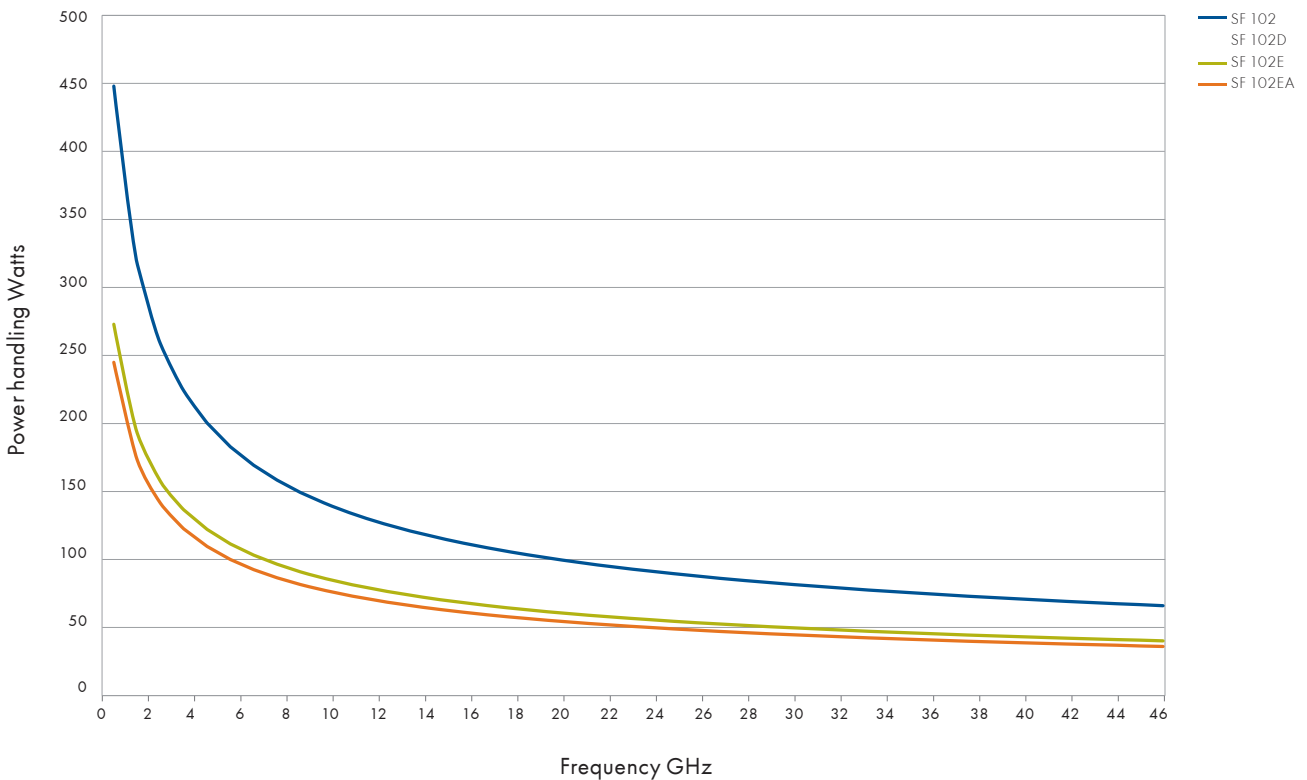
		SUCOFLEX 102	SUCOFLEX 102E	SUCOFLEX 102D	SUCOFLEX 102EA
Construction					
Max. operating frequency	GHz	46	46	46	46
Application		static	static	static	static
Velocity of propagation	%	77	77	77	77
Weight	g/m	40	37	45	120
Min. bending radius static	mm	12	12	15	20
Min. bending radius repeated	mm	20	20	30	40
Temperature range	°C	-55 to +125	-40 to +85	-55 to +125	-40 to +85
Crush resistance	kN/m	8	8	8	80
Tensile load	N	150	150	150	400
Inner conductor		solid wire	solid wire	solid wire	solid wire
Dielectric		LD-PTFE	LD-PTFE	LD-PTFE	LD-PTFE
Outer conductor		tape/braid	tape/braid	tape/braid	tape/braid
Jacket		FEP	PUR	FEP	PUR
Ruggedisation		no	no	aramid yarn braid	stainless steel/PUR
Outer diameter	mm	4.0	4.0	4.6	7.7
Screening effectiveness (up to 18 GHz)	dB	> 90	> 90	> 90	> 90
Phase stability vs. flexure (360°, diameter 55 mm)	°el/GHz	< 1.2	< 1.2	< 1.2	< 1.2
Phase stability vs. temperature (-40 to +85 °C)	ppm	< 1500	< 1500	< 1500	< 1500
Assembly phase matching tolerances	°el/GHz	± 0.5	± 0.5	± 0.5	± 0.5
Cable attenuation at 25 °C	dB/m	see graph	see graph	see graph	see graph
Insertion loss stability vs. bending	dB	± 0.2	± 0.2	± 0.2	± 0.2
Insertion loss stability vs. temperature	%/°C	< 0.2	< 0.2	< 0.2	< 0.2
Insertion loss stability vs. shaking	dB	± 0.1	± 0.1	± 0.1	± 0.1
Power handling	watt	see graph	see graph	see graph	see graph

SUCOFLEX[®] 102

Attenuation (nominal values at +25 °C ambient temperature)



Power handling (maximum values at 25 °C ambient temperature and sea level)



SUCOFLEX® 102

Available connectors

Connector	Series, pattern	HUBER+SUHNER connector type	SF102 SF102E	SF102EA	SF102D	Operating frequency GHz	VSWR per connector	Remarks
SK	straight cable plug	11_SK-252	•		•	40	1.20	
	straight cable plug	11_SK-253	•			40	1.20	QL nut
	straight cable plug	11_SK-258		•		40	1.20	
	straight cable plug	11_SK-262		•		40	1.20	QL nut
	right angle cable plug	16_SK-252	•		•	40	1.20	
	right angle cable plug	16_SK-255		•		40	1.20	
	straight cable jack	21_SK-252	•		•	40	1.20	
	straight cable jack	21_SK-257		•		40	1.20	
N	straight cable plug	11_N-206	•		•	18	1.12	
	straight panel bulkhead cable jack	24_SK-251	•		•	40	1.20	ML 35
PC 2.4	straight cable plug	11_PC2.4-201	•		•	46	1.20	
	straight cable plug	11_PC2.4-210		•		46	1.20	
	straight cable jack	21_PC2.4-201	•		•	46	1.20	
	straight cable jack	21_PC2.4-210		•		46	1.20	
	straight panel bulkhead cable jack	24_PC2.4-201	•		•	46	1.20	ML 38
PC 3.5	straight cable plug	11_PC3.5-203	•		•	26.5	1.16	
	straight cable jack	21_PC3.5-203	•		•	26.5	1.16	
SMA	straight cable plug	11_SMA-218	•		•	18 26.5	1.12 1.20	
	straight cable plug	11_SMA-262		•		18 26.5	1.12 1.20	
	right angle cable plug	16_SMA-254	•		•	18	1.12	
	straight cable jack	21_SMA-204	•		•	18 26.5	1.12 1.20	
	straight panel bulkhead cable jack	24_SMA-210	•		•	18 26.5	1.12 1.20	ML 20
TNC	straight cable plug	11_TNC-222	•		•	18	1.12	
	straight panel bulkhead cable jack	24_TNC-222	•		•	18	1.12	ML 4

High performance

Stock assemblies

Item no.	Type	Length mm	Frequency GHz	Max. insertion loss at 25 °C dB	Max. VSWR	RoHS compliant
SUCOFLEX_102						
84017146	SF102/SKm/SKm/500 mm	500	40	1.76	1.44	yes
84017149	SF102/SKm/SKm/1000 mm	1000	40	3.21	1.44	yes
SUCOFLEX_102_EA (armoured)						
85026755	SF102EA/SKm/SKm/500 mm	500	40	1.76	1.44	yes
85026756	SF102EA/SKm/SKm/1000 mm	1000	40	3.21	1.44	yes

SUCOFLEX[®] 103

The high performance microwave cable assembly working up to 33 GHz

Product description

SUCOFLEX 103 is the ideal solution for systems in which the attenuation to weight ratio is very important. Different ruggedisations and a large number of the common connector types complete this range.

Product features

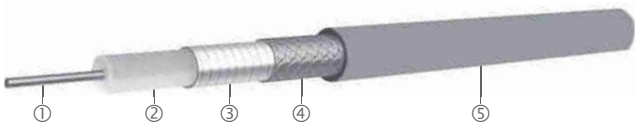
- Impedance 50 Ω
- Applicable up to 33 GHz
- High stability and low loss
- Wide range of connectors
- LSFH jacket and further ruggedisations on request



Recommended connectors

SF103	SMA, BMA, QMA, BNC, N, TNC, PC7, PC3.5
	Other connectors available on request

Construction



SF 103/103E



SF 103D






SF 103EA

Cable	Inner conductor ①	Dielectric ②	Outer conductor ③ ④	Jacket ⑤	Ruggedisation ⑥	Outer diameter mm
SUCOFLEX_103	CuAg wire	LD-PTFE	CuAg tape/braid	FEP, blue	no	4.6
SUCOFLEX_103_E	CuAg wire	LD-PTFE	CuAg tape/braid	PUR, blue	no	4.6
SUCOFLEX_103_D	CuAg wire	LD-PTFE	CuAg tape/braid	FEP	aramid yarn braid, blue	5.1
SUCOFLEX_103_EA	CuAg wire	LD-PTFE	CuAg tape/braid	PUR	stainless steel/ PUR, blue	10.3

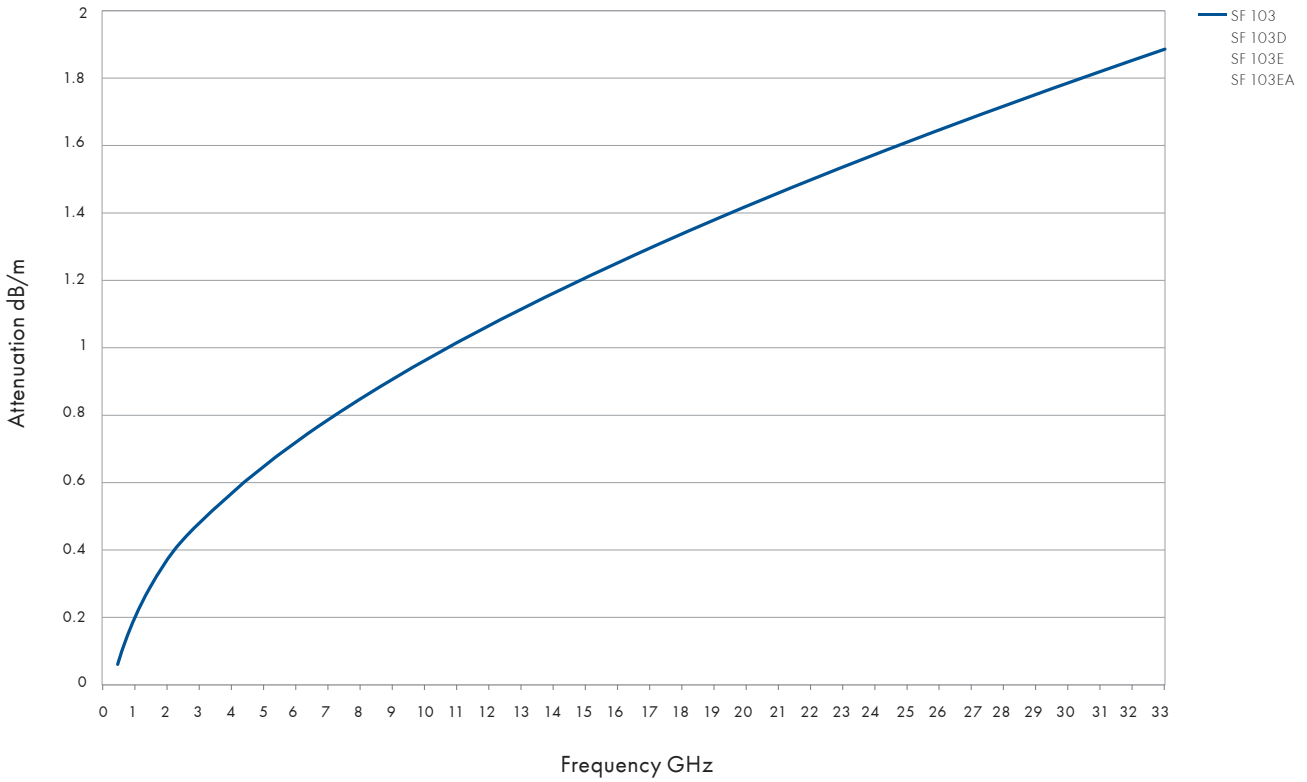
SUCOFLEX® 103

Assembly types

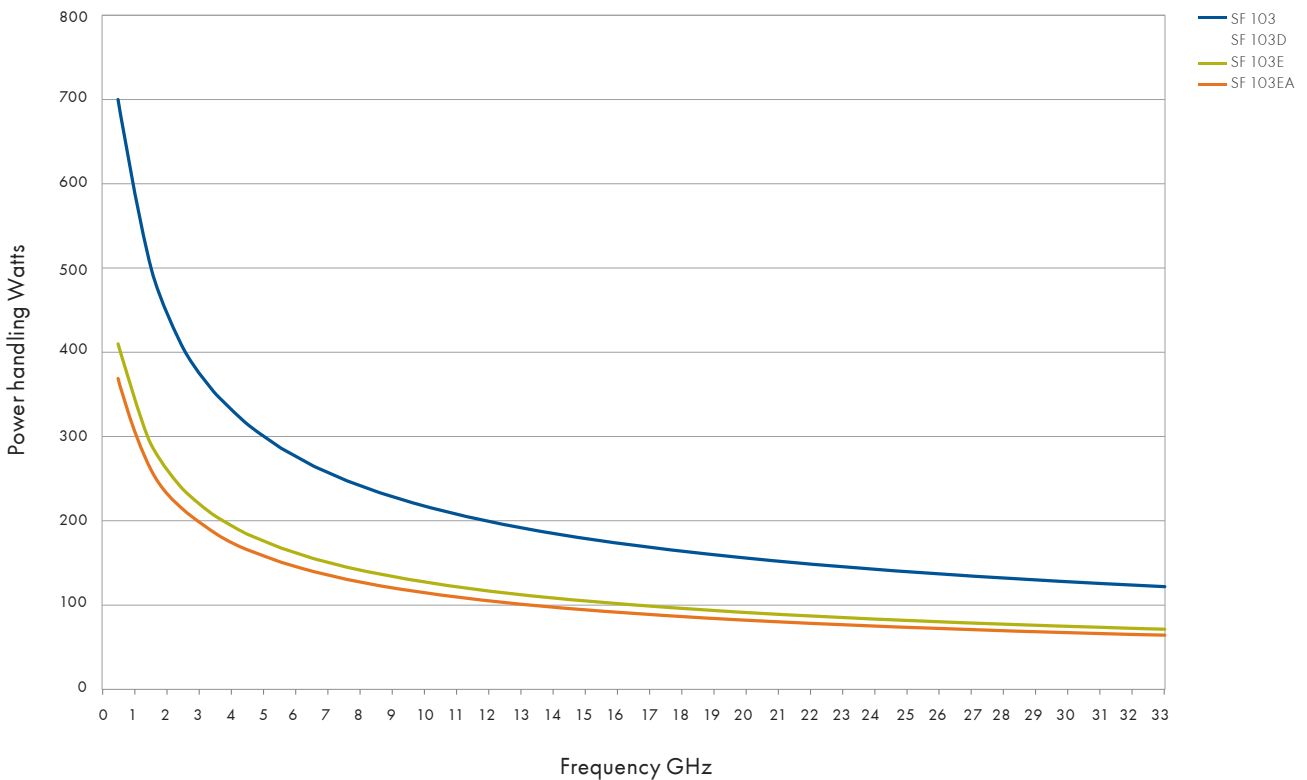
		SUCOFLEX 103	SUCOFLEX 103E	SUCOFLEX 103D	SUCOFLEX 103EA
Construction					
Max. operating frequency	GHz	33	33	33	33
Application		static	static	static	static
Velocity of propagation	%	77	77	77	77
Weight	g/m	53	52	63	142
Min. bending radius static	mm	13	13	20	30
Min. bending radius repeated	mm	22	22	30	50
Temperature range	°C	-55 to +125	-40 to +85	-55 to +125	-40 to +85
Crush resistance	kN/m	8	8	8	80
Tensile load	N	200	200	200	400
Inner conductor		solid wire	solid wire	solid wire	solid wire
Dielectric		LD-PTFE	LD-PTFE	LD-PTFE	LD-PTFE
Outer conductor		tape/braid	tape/braid	tape/braid	tape/braid
Jacket		FEP	PUR	FEP	PUR
Ruggedisation		no	no	aramid yarn braid	stainless steel/PUR
Outer diameter	mm	4.6	4.6	5.1	10.3
Screening effectiveness (up to 18 GHz)	dB	> 90	> 90	> 90	> 90
Phase stability vs. flexure (360°, diameter 55 mm)	°el/GHz	< 1.4	< 1.4	< 1.4	< 1.4
Phase stability vs. temperature (-40 to +85 °C)	ppm	< 1500	< 1500	< 1500	< 1500
Assembly phase matching tolerances	°el/GHz	± 0.5	± 0.5	± 0.5	± 0.5
Cable attenuation at 25 °C	dB/m	see graph	see graph	see graph	see graph
Insertion loss stability vs. bending	dB	± 0.2	± 0.2	± 0.2	± 0.2
Insertion loss stability vs. temperature	%/°C	< 0.2	< 0.2	< 0.2	< 0.2
Insertion loss stability vs. shaking	dB	± 0.1	± 0.1	± 0.1	± 0.1
Power handling	watt	see graph	see graph	see graph	see graph

SUCOFLEX® 103

Attenuation (nominal values at +25 °C ambient temperature)



Power handling (maximum values at 25 °C ambient temperature and sea level)



SUCOFLEX® 103

Available connectors

Connector		HUBER+SUHNER connector type	SF103 SF103E	SF103EA	SF103D	Operating frequency GHz	VSWR per connector	Remarks
BNC	straight cable plug	11_BNC-373	•		•	4	1.14	
N	straight cable plug	11_N-371	•	•	•	18	1.12	
	right angle cable plug	16_N-372	•	•	•	18	1.12	swept
	straight panel bulkhead cable jack	24_N-352	•	•	•	18	1.12	ML 12
PC 3.5	straight cable plug	11_PC3.5-31	•	•	•	26.5	1.16	
	straight cable jack	21_PC3.5-31	•	•	•	26.5	1.16	
PC 7	straight cable plug	11_PC7-31	•		•	18	1.10	
SMA	straight cable plug	11_SMA-367	•	•		18	1.12	QL nut
	straight cable plug	11_SMA-371	•	•	•	18	1.12	
	right angle cable plug	16_SMA-371	•	•	•	18	1.12	
	straight cable jack	21_SMA-371	•	•	•	18	1.12	
	straight panel bulkhead cable jack	24_SMA-371	•	•	•	18	1.12	ML 35
TNC	straight cable plug	11_TNC-353	•	•	•	18	1.12	
	straight panel bulkhead cable jack	24_TNC-353	•	•	•	18	1.12	ML 4

High performance

SUCOFLEX® 104

The high performance microwave cable assembly working up to 26.5 GHz

Product description

SUCOFLEX 104 cables that can be universally assembled with the widest range of connector types, are available with most ruggedisations.

Product features

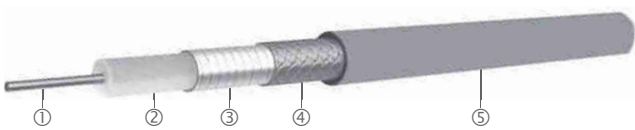
- Impedance 50 Ω
- Applicable up to 26.5 GHz
- High stability and low loss
- Wide range of connectors
- VNA-specific connectors
- Quick lock nuts
- LSFH jacket and further ruggedisations on request



Recommended connectors

SF104	SMA, BMA, QMA, BNC, TNC, N, QN, 7/16, PC3.5
	Other connectors available on request

Construction



SF 104/104E





SF 104D

Cable	Inner conductor ①	Dielectric ②	Outer conductor ③ ④	Jacket ⑤	Ruggedisation ⑥	Outer diameter mm
SUCOFLEX_104	CuAg wire	LD-PTFE	CuAg tape/braid	FEP, blue	no	5.5
SUCOFLEX_104_E	CuAg wire	LD-PTFE	CuAg tape/braid	PUR, blue	no	5.5
SUCOFLEX_104_D	CuAg wire	LD-PTFE	CuAg tape/braid	FEP	aramid yarn braid, blue	6.1

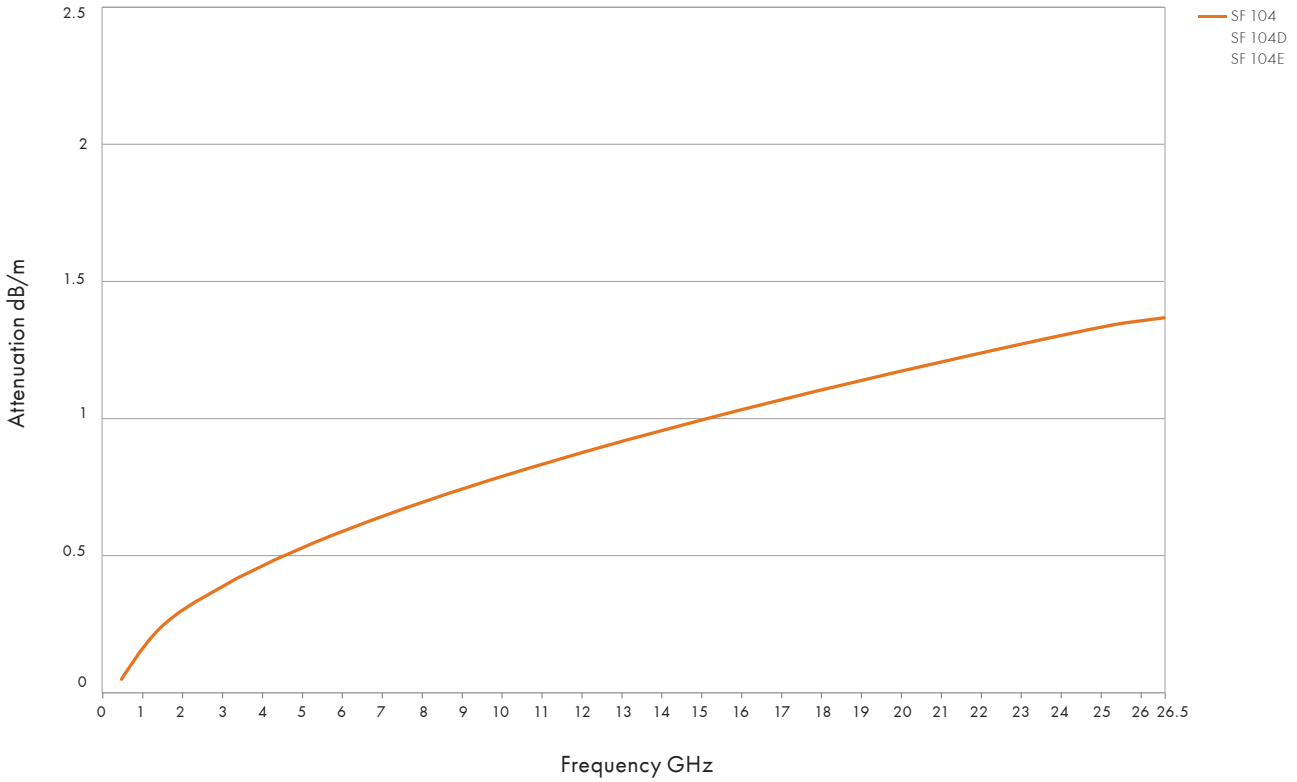
SUCOFLEX® 104

Assembly types

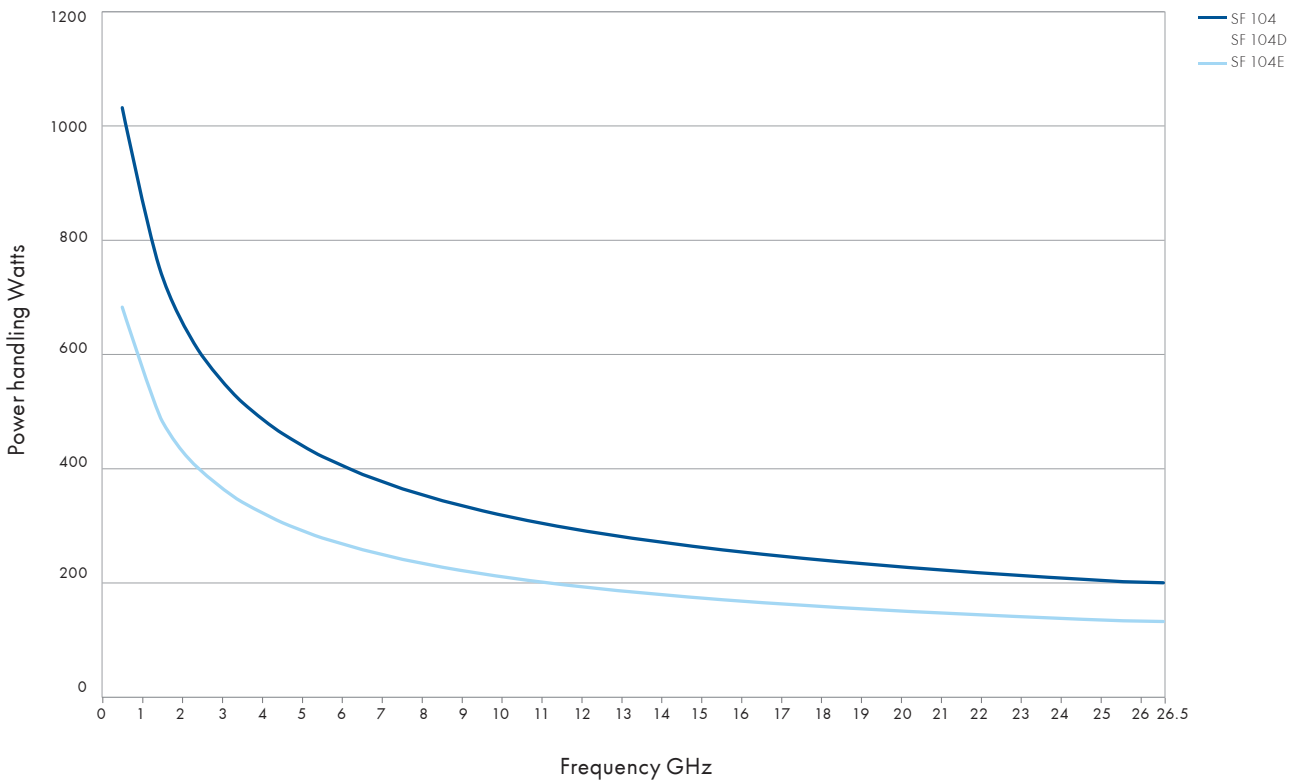
		SUCOFLEX 104	SUCOFLEX 104E	SUCOFLEX 104D
Construction				
Max. operating frequency	GHz	26.5	26.5	26.5
Application		static	static	static
Velocity of propagation	%	77	77	77
Weight	g/m	73	65	96
Min. bending radius static	mm	16	16	20
Min. bending radius repeated	mm	25	25	30
Temperature range	°C	-55 to +125	-40 to +85	-55 to +125
Crush resistance	kN/m	8	8	8
Tensile load	N	250	250	250
Inner conductor		solid wire	solid wire	solid wire
Dielectric		LD-PTFE	LD-PTFE	LD-PTFE
Outer conductor		tape/braid	tape/braid	tape/braid
Jacket		FEP	PUR	FEP
Ruggedisation		no	no	aramid yarn braid
Outer diameter	mm	5.5	5.5	6.1
Screening effectiveness (up to 18 GHz)	dB	> 90	> 90	> 90
Phase stability vs. flexure (360°, diameter 55 mm)	°el/GHz	< 1.7	< 1.7	< 1.7
Phase stability vs. temperature (-40 to +85 °C)	ppm	< 1500	< 1500	< 1500
Assembly phase matching tolerances	°el/GHz	± 0.5	± 0.5	± 0.5
Cable attenuation at 25 °C	dB/m	see graph	see graph	see graph
Insertion loss stability vs. bending	dB	± 0.2	± 0.2	± 0.2
Insertion loss stability vs. temperature	%/°C	< 0.2	< 0.2	< 0.2
Insertion loss stability vs. shaking	dB	± 0.1	± 0.1	± 0.1
Power handling	watt	see graph	see graph	see graph

SUCOFLEX[®] 104

Attenuation (nominal values at +25 °C ambient temperature)



Power handling (maximum values at 25 °C ambient temperature and sea level)



SUCOFLEX® 104

Available connectors

Connector	Series, pattern	HUBER+SUHNER connector type	SF104 SF104E	SF104D	Operating frequency GHz	VSWR per connector	Remarks
BNC	straight cable plug	11_BNC-451	•	•	4	1.14	
N	straight cable plug	11_N-47	•	•	15 18	1.12 1.16	
	straight cable plug	11_N-451	•	•	18	1.12	
	straight cable plug	11_N-454	•	•	15 18	1.12 1.16	hexagonal nut with safety holes
	straight cable plug	11_N-456	•	•	18	1.12	hexagonal nut with safety holes
	right angle cable plug	16_N-44	•	•	12.4 18	1.14 1.18	
	straight cable jack	21_N-47	•	•	11 15	1.12 1.16	
	straight cable jack	21_N-451	•	•	18	1.12	
	straight panel bulkhead cable jack	24_N-47	•	•	11 15	1.12 1.16	ML 12
	straight panel bulkhead cable jack	24_N-451	•	•	18	1.12	ML 12
PC 3.5	straight cable plug	11_PC3.5-42	•	•	18 26.5	1.12 1.16	
	straight cable jack	21_PC3.5-42	•	•	18 26.5	1.12 1.16	
PC 7	straight cable plug	11_PC7-41	•	•	18	1.1	
QMA	straight cable plug	11_QMA-W401	•		6	1.07	
QN	straight cable plug	11_QN-403	•		6	1.07	
SMA	straight cable plug	11_SMA-451	•	•	18	1.12	
	straight cable plug	11_SMA-456	•	•	18	1.12	hexagonal nut with safety holes
	straight cable plug	11_SMA-468	•	•	18	1.12	QL nut
	right angle cable plug	16_SMA-451	•	•	18	1.12	
	straight cable jack	21_SMA-451	•	•	18	1.12	
	straight panel bulkhead cable jack	24_SMA-451	•	•	18	1.12	ML 35
TNC	straight cable plug	11_TNC-418	•	•	12.4 18	1.14 1.18	QL nut
	straight cable plug	11_TNC-457	•	•	18	1.12	
	right angle cable plug	16_TNC-454	•	•	18	1.14	
	straight panel bulkhead cable jack	24_TNC-457	•	•	18	1.12	ML 4
7/16	straight cable plug	11_716-401	•	•	7.5	1.12	
	straight cable jack	21_716-401	•	•	7.5	1.12	

SUCOFLEX® 104

Stock assemblies

Item no.	Type	Length	Frequency	Max. insertion loss at 25 °C	Max. VSWR	RoHS compliant
		mm	GHz	dB		
SUCOFLEX_104						
84017153	SF104/Nm/Nm/500 mm	500	18	0.82	1.35	yes
84016754	SF104/SMAm/SMAm/500 mm	500	18	0.82	1.25	yes
84017154	SF104/PC35m/PC35m/500 mm	500	26.5	1.01	1.35	yes
84017155	SF104/SMAm/Nm/1000 mm	1000	18	1.43	1.30	yes
84017157	SF104/Nm/Nm/1000 mm	1000	18	1.43	1.35	yes
84016755	SF104/SMAm/SMAm/1000 mm	1000	18	1.43	1.25	yes
84017158	SF104/PC35m/PC35m/1000 mm	1000	26.5	1.77	1.35	yes
84017067	SF104/Nm/Nm/1500 mm	1500	18	2.03	1.35	yes
84016756	SF104/SMAm/SMAm/1500 mm	1500	18	2.03	1.25	yes
84017159	SF104/SMAm/Nm/2000 mm	2000	18	2.64	1.30	yes
84017160	SF104/Nm/Nm/2000 mm	2000	18	2.64	1.35	yes
84016757	SF104/SMAm/SMAm/2000 mm	2000	18	2.64	1.25	yes

SUCOFLEX® 126

The low loss, phase stable assembly up to 26.5 GHz

Product description

SUCOFLEX_126 cables combines the low loss and power of SUCOFLEX 104 with the phase stability of SUCOFLEX 104P. Where low loss, combined with phase and amplitude stability is required, SUCOFLEX_126 must be applied.

Product features

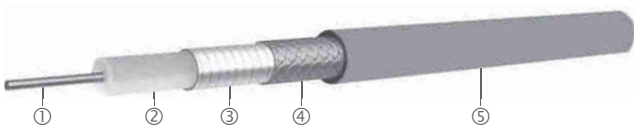
- Applicable up to 26.5 GHz
- Excellent return loss
- Excellent phase- and amplitude stability
- Low loss
- Wide range of connectors
- Crush resistant armour available
- Available from stock



Recommended connectors

SF126	BNC, DV, N, PC3.5; PC7, SMA, TNC, 7/16
	Other connectors available on request

Construction



SF 126/126E






SF 126EA

Cable	Inner conductor ①	Dielectric ②	Outer conductor ③ ④	Jacket ⑤	Ruggedisation ⑥	Outer diameter mm
SUCOFLEX_126	CuAg strand	LD-PTFE	CuAg tape/braid	FEP, blue	no	5.5
SUCOFLEX_126_E	CuAg strand	LD-PTFE	CuAg tape/braid	PUR, blue	no	5.5
SUCOFLEX_126_EA	CuAg strand	LD-PTFE	CuAg tape/braid	PUR	stainless steel/PUR, blue	10.3

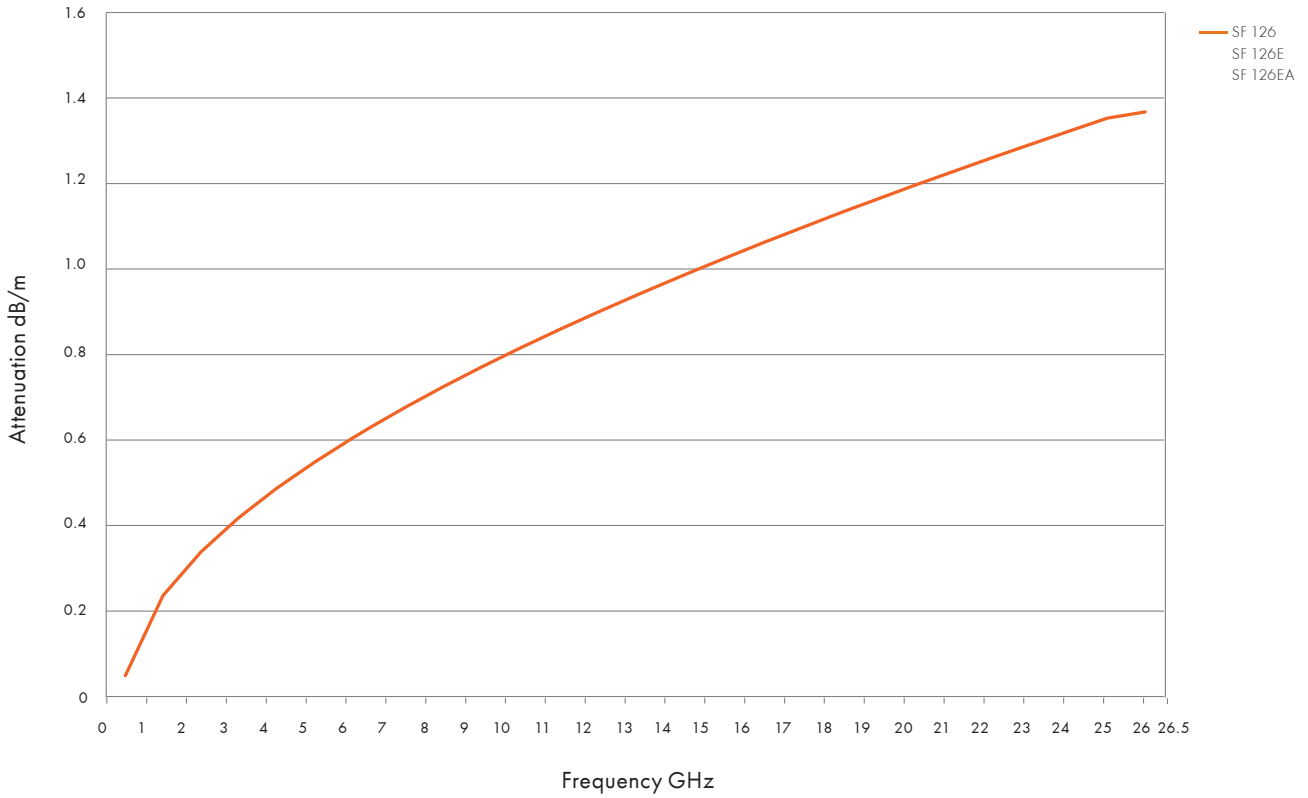
SUCOFLEX® 126

Assembly types

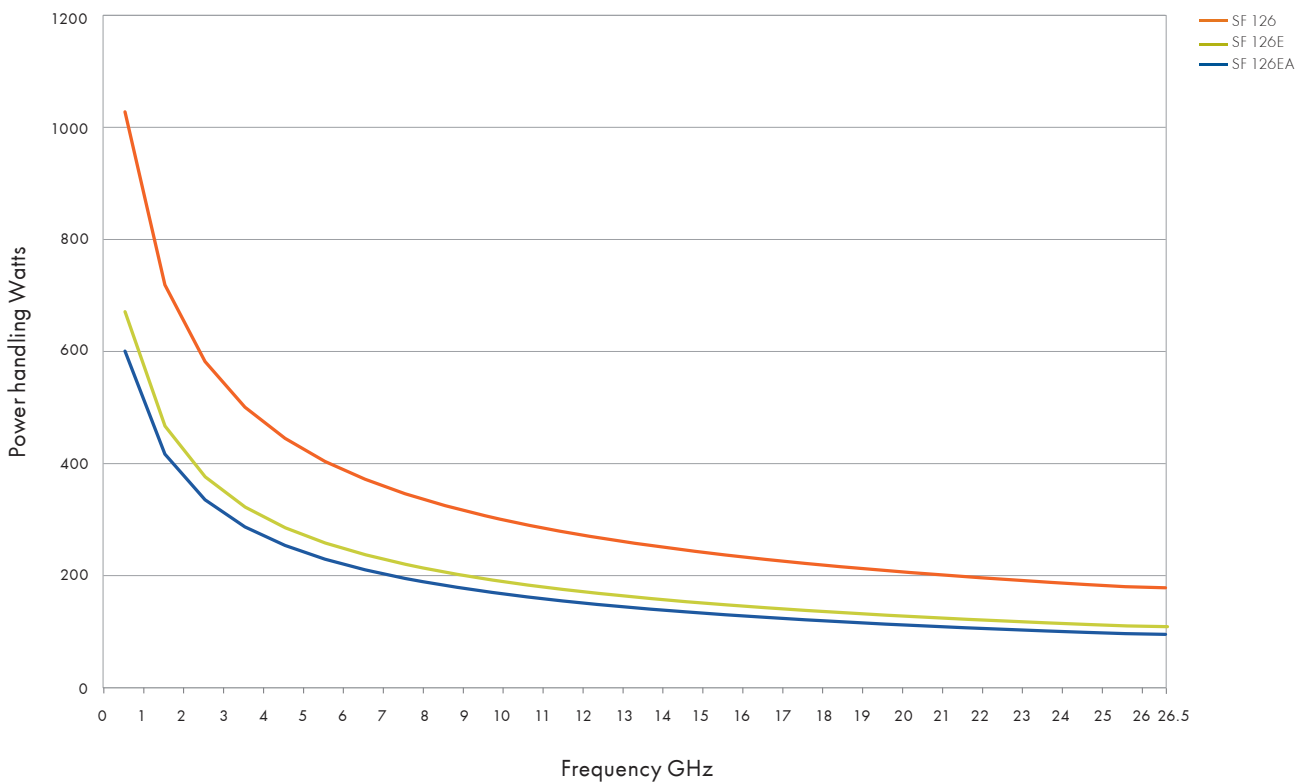
		SUCOFLEX 126	SUCOFLEX 126E	SUCOFLEX 126EA
Construction				
Max. operating frequency	GHz	26.5	26.5	26.5
Application		dynamic	dynamic	dynamic
Velocity of propagation	%	77	77	77
Weight	g/m	70	66	171
Min. bending radius static	mm	16	16	30
Min. bending radius repeated	mm	25	25	50
Temperature range	°C	-55 to +125	-40 to +85	-40 to +85
Crush resistance	kN/m	8	8	80
Tensile load	N	250	250	500
Inner conductor		stranded	stranded	stranded
Dielectric		LD-PTFE	LD-PTFE	LD-PTFE
Outer conductor		tape/braid	tape/braid	tape/braid
Jacket		FEP	PUR	PUR
Ruggedisation		no	no	stainless steel/PUR
Outer diameter	mm	5.5	5.5	10.3
Screening effectiveness (up to 18 GHz)	dB	> 90	> 90	> 90
Phase stability vs. flexure (360°, diameter 55 mm)	°el/GHz	< 0.9	< 0.9	< 0.9
Phase stability vs. temperature (-40 to +85 °C)	ppm	< 1500	< 1500	< 1500
Assembly phase matching tolerances	°el/GHz	± 0.5	± 0.5	± 0.5
Cable attenuation at 25 °C	dB/m	see graph	see graph	see graph
Insertion loss stability vs. bending	dB	± 0.2	± 0.2	± 0.2
Insertion loss stability vs. temperature	%/°C	< 0.2	< 0.2	< 0.2
Insertion loss stability vs. shaking	dB	± 0.1	± 0.1	± 0.1
Power handling	watt	see graph	see graph	see graph

SUCOFLEX[®] 126

Attenuation (nominal values at +25 °C ambient temperature)



Power handling (maximum values at 25 °C ambient temperature and sea level)



SUCOFLEX® 126

Available connectors

Connector	Series, pattern	HUBER+SUHNER connector type	SF126	SF126E	SF126EA	Operating frequency (GHz)	VSWR per connector	Remarks
BNC	Straight cable plug	11_BNC-452	•	•	•	4.0	1.14	
DV	Straight cable plug	11_DV-41	•	•	•	26.5	1.16	3.5mm connector for Agilent Technologies instrument
N	Straight cable plug	11_N-47	•	•	•	15.0	1.12	
	Straight cable plug	11_N-452	•	•	•	18.0	1.12	
	Straight cable plug	11_N-454	•	•	•	15.0	1.12	Hexagonal nut w. safety holes
	Right angle cable plug	16_N-457	•	•	•	12.4	1.14	
	Straight cable jack	21_N-452	•	•	•	18	1.12	
	Straight panel bulkhead cable jack	24_N-452	•	•	•	18	1.12	Mounting hole size 12
PC 3.5	Straight cable plug	11_PC3.5-43	•	•	•	18 26.5	1.12 1.16	
	Straight cable jack	21_PC3.5-43	•	•	•	18 26.5	1.12 1.16	
PC 7	Straight cable plug	11_PC7-42	•	•	•	18	1.1	
SMA	Straight cable plug	11_SMA-451	•	•	•	18	1.12	
	Straight cable plug	11_SMA-452	•	•	•	18	1.16	phase matching connector
	Straight cable plug	11_SMA-456	•	•	•	18	1.12	Hexagonal nut w. safety holes
	Straight cable plug	11_SMA-468	•	•	•	18	1.12	Quick lock nut
	Right angle cable plug	16_SMA-452	•	•	•	18	1.12	
	Straight cable jack	21_SMA-451	•	•	•	18	1.12	
	Straight panel bulkhead cable jack	24_SMA-451	•	•	•	18	1.12	Mounting hole size 35
TNC	Straight cable plug	11_TNC-456	•	•	•	18	1.12	
	Straight panel bulkhead cable jack	24_TNC-456	•	•	•	18	1.12	Mounting hole size 4
7/16	Straight cable plug	11_716-402	•	•	•	7.5	1.12	
	Straight cable jack	21_716-402	•	•	•	7.5	1.12	

Stock assemblies

Item no.	Type	Length	Frequency	Max. insertion loss at 25 °C	Max. VSWR	RoHS compliant
		mm	GHz	dB		
SUCOFLEX_126_E						
85072824	SF126E/SMAm/SMAm/500mm	500	18.0	0.82	1.25	yes
85072825	SF126E/SMAm/SMAm/1000mm	1000	18.0	1.43	1.25	yes
85072826	SF126E/PC35m/PC35m/1000mm	1000	26.5	1.77	1.35	yes
SUCOFLEX_126_EA (armoured)						
85072828	SF126EA/Nm/Nm/1000mm	1000	18.0	1.43	1.25	yes
85072827	SF126EA/SMAm/SMAm/1000mm	1000	18.0	1.43	1.25	yes
85072829	SF126EA/Nm/Nf/1500mm	1500	18.0	2.03	1.25	yes
85072830	SF126EA/Nm/Nm/1500mm	1500	18.0	2.03	1.25	yes

SUCOFLEX® 106

The high performance microwave cable assembly working up to 18 GHz

Product description

SUCOFLEX 106 and 106P are used in applications where special consideration must be given to low attenuation or high power handling capacity. Wherever phase stability is additionally demanded, the suitable type is the SUCOFLEX 106P. Most ruggedisations can be used in conjunction with these cables, and also the main connector series.



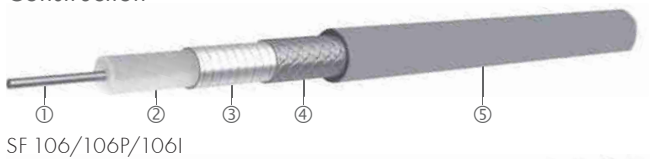
Product features

- Impedance 50 Ω
- Applicable up to 18 GHz
- High stability and low loss
- Wide range of connectors
- Further ruggedisations on request

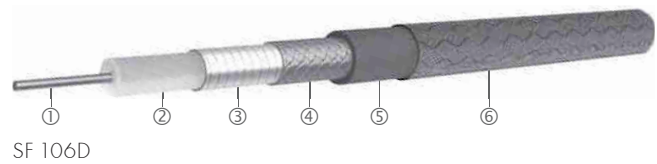
Recommended connectors

SF106 SF106P	SMA, TNC, N, QN, 7/16
	Other connectors available on request

Construction



SF 106/106P/106I



SF 106D






SF 106A/106PA

Cable	Inner conductor ①	Dielectric ②	Outer conductor ③ ④	Jacket ⑤	Ruggedisation ⑥	Outer diameter mm
SUCOFLEX_106	CuAg wire	LD-PTFE	CuAg tape/braid	FEP, blue	no	7.9
SUCOFLEX_106_D	CuAg wire	LD-PTFE	CuAg tape/braid	FEP	aramid yarn braid, blue	8.3
SUCOFLEX_106_I	CuAg wire	LD-PTFE	CuAg tape/braid	LSFH, black	no	8.2
SUCOFLEX_106_A	CuAg wire	LD-PTFE	CuAg tape/braid	FEP	stainless steel/ PUR, black	13.2
SUCOFLEX_106_P	CuAg strand	LD-PTFE	CuAg tape/braid	FEP, blue	no	7.9
SUCOFLEX_106_PA	CuAg strand	LD-PTFE	CuAg tape/braid	FEP	stainless steel/ PUR, black	13.2

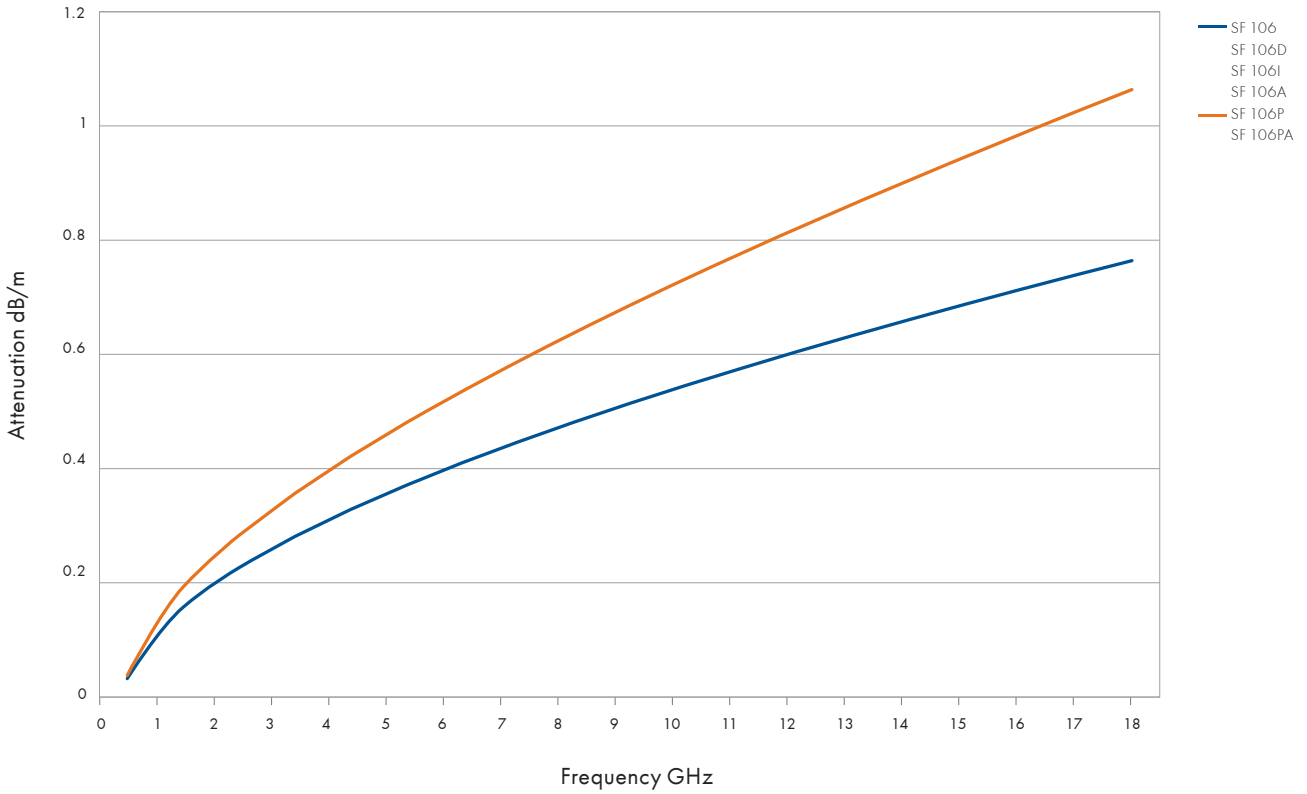
SUCOFLEX® 106

Assembly types

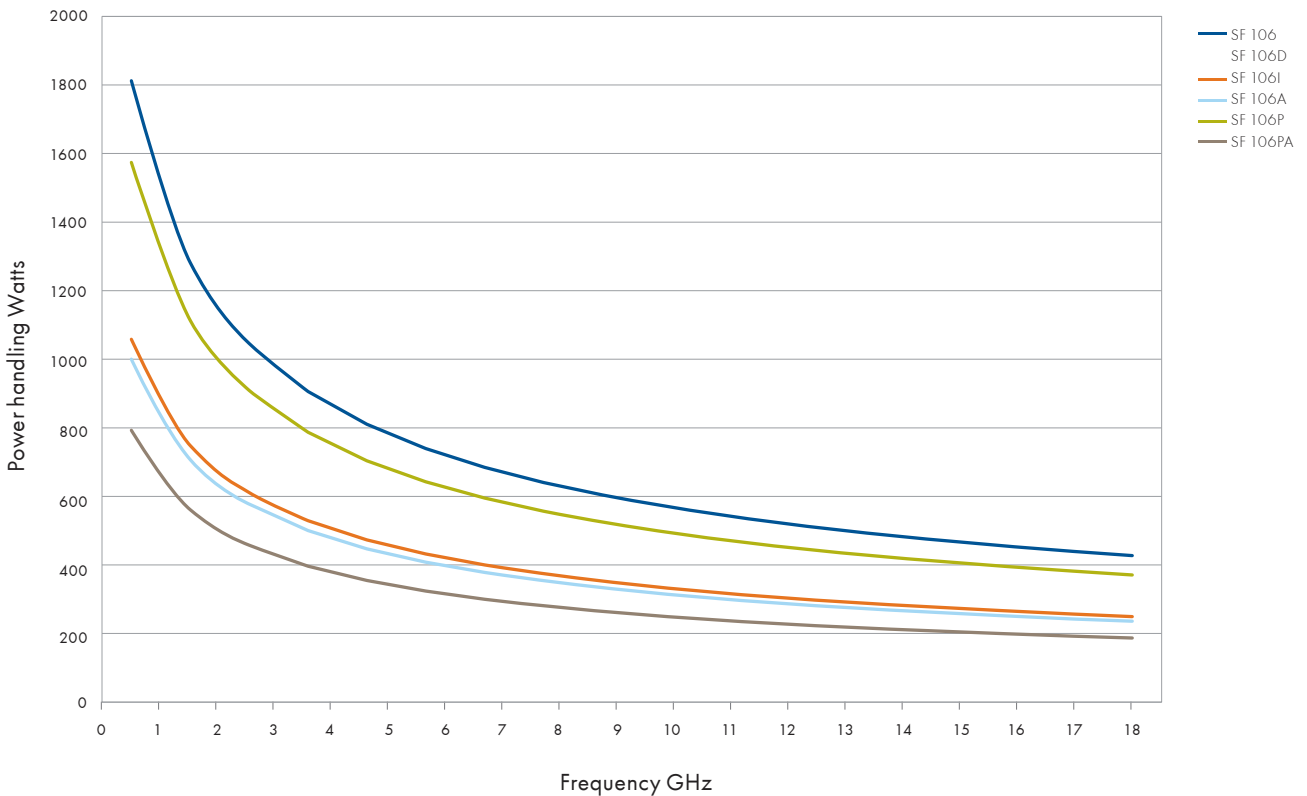
		SUCOFLEX 106	SUCOFLEX 106I	SUCOFLEX 106P	SUCOFLEX 106D	SUCOFLEX 106A	SUCOFLEX 106PA
Construction							
Max. operating frequency	GHz	18	18	18	18	18	18
Application		static	static	dynamic	static	static	dynamic
Velocity of propagation	%	77	77	77	77	77	77
Weight	g/m	142	144	137	175	215	216
Min. bending radius static	mm	24	24	24	26	50	50
Min. bending radius repeated	mm	40	40	40	45	70	70
Temperature range	°C	-55 to +125	-40 to +85	-55 to +125	-55 to +125	-40 to +85	-40 to +85
Crush resistance	kN/m	12	12	12	12	80	80
Tensile load	N	400	400	400	400	400	400
Inner conductor		solid wire	solid wire	strand	solid wire	solid wire	strand
Dielectric		LD-PTFE	LD-PTFE	LD-PTFE	LD-PTFE	LD-PTFE	LD-PTFE
Outer conductor		tape/braid	tape/braid	tape/braid	tape/braid	tape/braid	tape/braid
Jacket		FEP	LSFH	FEP	FEP	FEP	FEP
Ruggedisation		no	no	no	aramid yarn braid	stainless steel/ PUR	stainless steel/ PUR
Outer diameter	mm	7.9	8.2	7.9	8.3	13.2	13.2
Screening effectiveness (up to 18 GHz)	dB	> 90	> 90	> 90	> 90	> 90	> 90
Phase stability vs. flexure (360°, diameter 85 mm)	°el/GHz	< 2.0	< 2.0	< 1.2	< 2.0	< 2.0	< 1.2
Phase stability vs. temperature (-40 to +85 °C)	ppm	< 1500	< 1500	< 1500	< 1500	< 1500	< 1500
Assembly phase matching tolerances	°el/GHz	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5
Cable attenuation at 25 °C	dB/m	see graph	see graph	see graph	see graph	see graph	see graph
Insertion loss stability vs. bending	dB	± 0.2	± 0.2	± 0.2	± 0.2	± 0.2	± 0.2
Insertion loss stability vs. temperature	%/°C	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Insertion loss stability vs. shaking	dB	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1
Power handling	watt	see graph	see graph	see graph	see graph	see graph	see graph

SUCOFLEX[®] 106

Attenuation (nominal values at +25 °C ambient temperature)



Power handling (maximum values at 25 °C ambient temperature and sea level)



SUCOFLEX® 106

Available connectors

Connector	Series, pattern	HUBER+SUHNER connector type	SF106	SF106A	SF106D	SF106I	SF106P	SF106PA	Operating frequency	VSWR per connector	Remarks
N	straight cable plug	11_N-651	•	•	•	•			18	1.12	
	straight cable plug	11_N-656					•	•	18	1.12	
	right angle cable plug	16_N-651	•		•	•			11 18	1.12 1.22	
	right angle cable plug	16_N-653		•					11 18	1.12 1.22	
	right angle cable plug	16_N-656					•		11 18	1.12 1.22	MIL
	straight panel bulkhead cable jack	24_N-651	•	•	•	•			18	1.12	ML 12
	straight panel bulkhead cable jack	24_N-652					•		18	1.12	ML 12
QN	straight cable plug	11_QN-601	•			•			6	1.07	
SMA	straight cable plug	11_SMA-652	•	•	•	•			18	1.12	
	straight cable plug	11_SMA-656					•	•	18	1.12	
	right angle cable plug	16_SMA-652	•		•	•			18	1.22	
	straight cable jack	21_SMA-651	•	•	•				18	1.12	
	straight cable jack	21_SMA-652					•	•	18	1.12	
	straight panel bulkhead cable jack	24_SMA-651	•			•	•		18	1.12	ML 35
TNC	straight cable plug	11_TNC-651		•					18	1.16	
	straight cable plug	11_TNC-653	•		•	•			18	1.12	
	straight cable plug	11_TNC-654					•		18	1.12	
	right angle cable plug	16_TNC-651	•		•	•			18	1.22	
	right angle cable plug	16_TNC-653		•					18	1.22	
	right angle cable plug	16_TNC-655				•			18	1.22	
	straight cable jack	21_TNC-651	•		•	•			18	1.12	
	straight panel bulkhead cable jack	24_TNC-651		•					18	1.16	ML 4
	straight panel bulkhead cable jack	24_TNC-653	•		•	•			18	1.12	ML 4
7/16	straight cable plug	11_716-61	•	•	•	•			7.5	1.12	
	straight cable jack	21_716-61	•	•	•	•			7.5	1.12	