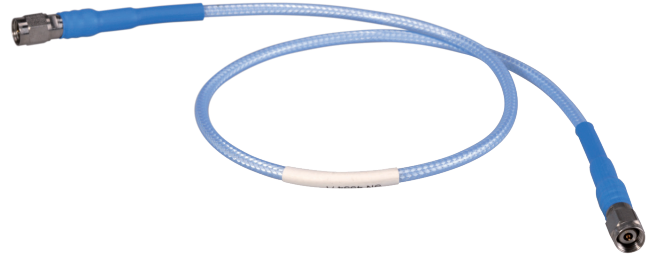


SUCOFLEX® 101

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!



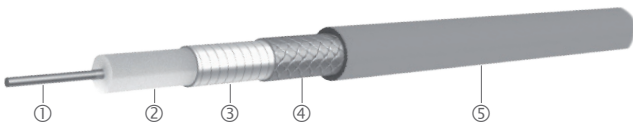
Product features

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

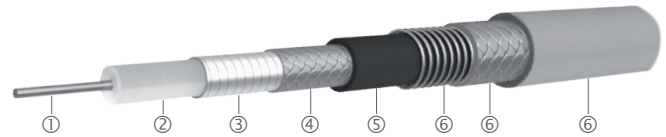
Recommended connectors

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

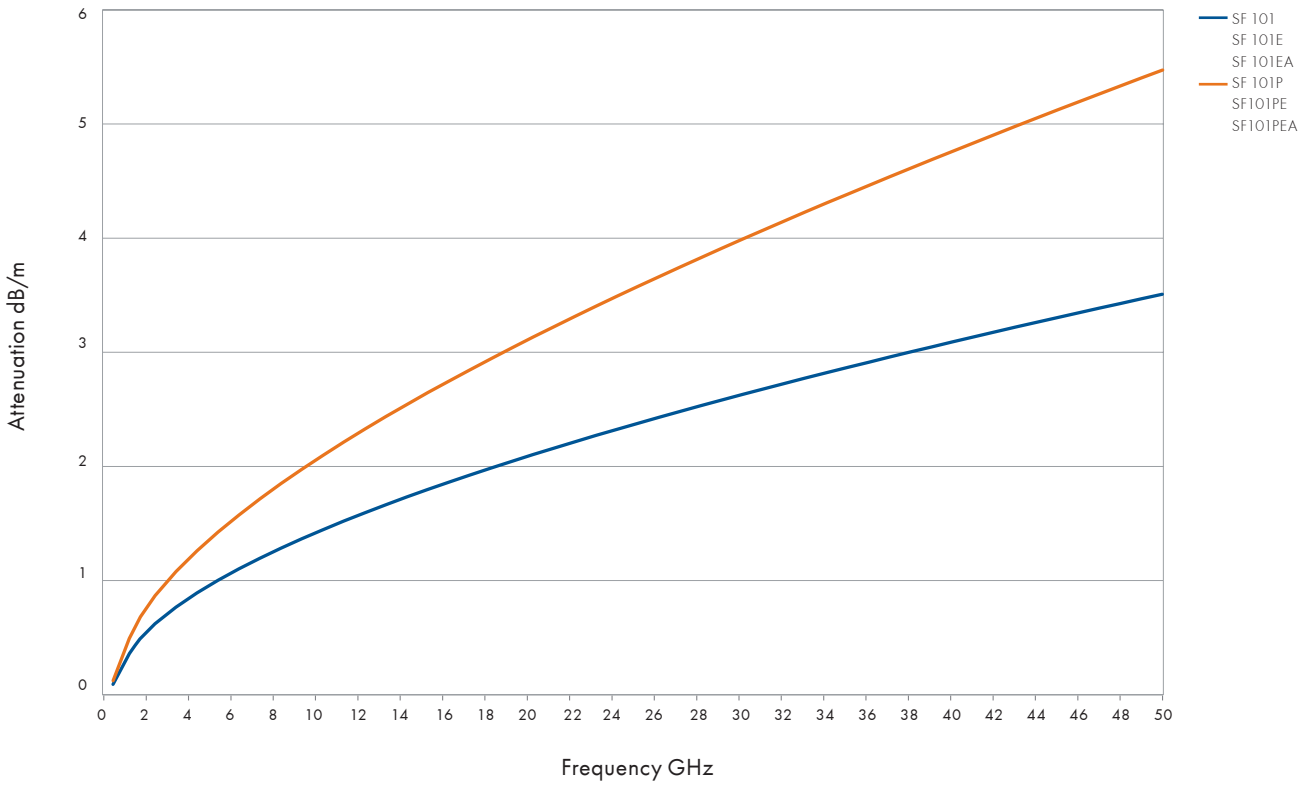
SUCOFLEX® 101

Assembly types

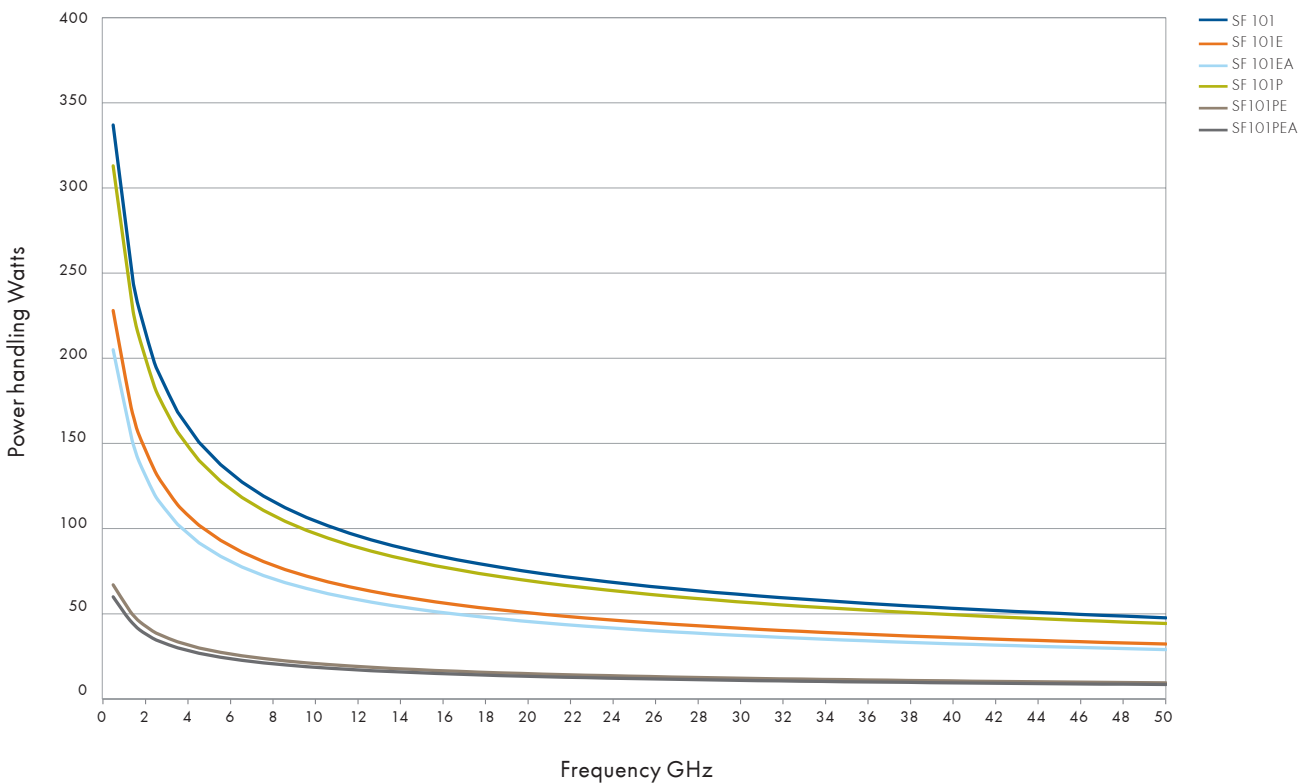
		SUCOFLEX 101	SUCOFLEX 101E	SUCOFLEX 101P	SUCOFLEX 101PE	SUCOFLEX 101EA	SUCOFLEX 101PEA
Construction							
Max. operating frequency	GHz	50	50	50	50	50	50
Application		static	static	dynamic	dynamic	static	dynamic
Velocity of propagation	%	77	77	77	77	77	77
Weight	g/m	36	33	33	30	114	111
Min. bending radius 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		