

Overview SUCOFLEX® 200

The loss revolution for dynamic applications

Product description

The tape wrapped SUCOFLEX 200 microwave cable assemblies have been specifically developed for high performance and anywhere the best insertion loss, high phase stability versus temperature, excellent return loss and mechanical stability are of the utmost importance.

Product features

- Impedance 50 Ω
- Ultra low loss
- Phase stable vs. temperature
- Robust mechanical construction designed for dynamic applications
- Phase stable vs. bending
- Operating frequency up to 40 GHz
- Velocity of propagation 82 %
- MIL-DTL-17 qualified
- Stock assemblies available



Recommended connectors

SF229 SF229A	SMA, SK, TNC, N
SF240	SMA, SK
	Other connectors available on request

Technical data

HUBER+SUHNER cable type	Operating frequency	Temperature range	Outer diameter	Nominal attenuation 18 GHz, 25 °C	Bending radii		Weight	More information see page
	GHz	°C	mm	dB/m	static mm	repeated mm	g/m	
SUCOFLEX 229	29	-55 to +125	5.1	1.0	23	70	61	39
SUCOFLEX 229A	29	-40 to +85	10.3	1.0	30	70	150	39
SUCOFLEX 240	40	-55 to +125	4.2	1.6	8.4	25	37	43

SUCOFLEX® 229

The loss revolution for dynamic applications

Product description – benefits

- Improved system performance due to reduced phase change over temperature
- Higher signal integrity due to lower loss
- Fully MIL/DTL-17 qualified
- Excellent performance to price ratio
- Stock assemblies available

Product features

- Impedance 50 Ω
- Applicable up to 29 GHz
- For static and dynamic applications
- Ultra low loss
- Outstanding phase stability
- Excellent return loss



Recommended connectors

SF229	SMA, TNC, N, SK
	Other connectors available on request

Construction



SF 229





SF 229A

Cable	Inner conductor ①	Dielectric ②	Outer conductor ③	Barrier ④	Outer braid ⑤	Jacket ⑥	Ruggedisation ⑦	Outer diameter
								mm
SUCOFLEX_229	CuAg wire	PTFE microporous	CuAg flat wire braid	aluminium/ polyimide tape	CuAg	FEP, clear	no	5.1
SUCOFLEX_229A	CuAg wire	PTFE microporous	CuAg flat wire braid	aluminium/ polyimide tape	CuAg	FEP, clear	stainless steel/ PUR, blue	10.3

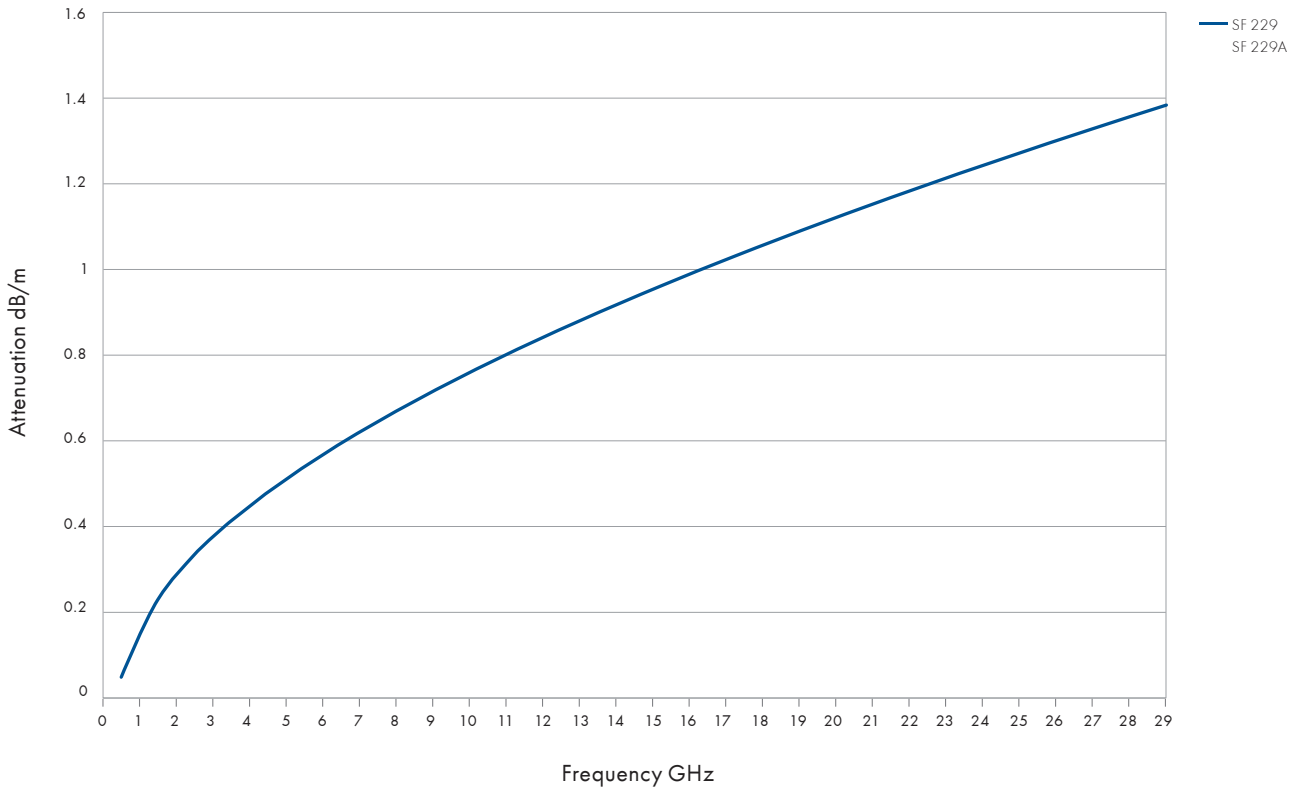
SUCOFLEX 229

Assembly types

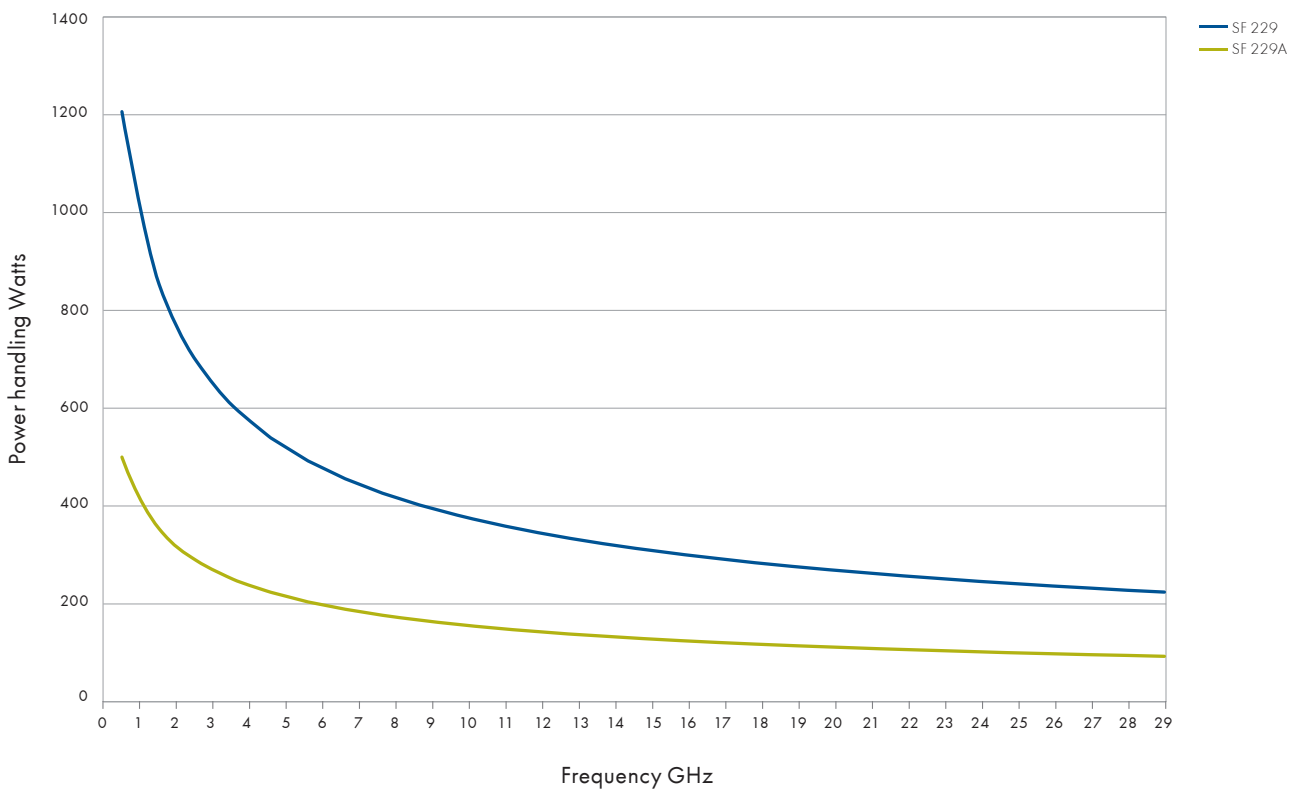
		SUCOFLEX_229	SUCOFLEX_229A
Construction			
Max. operating frequency	GHz	29	29
Application		static and dynamic	static and dynamic
Velocity of propagation	%	82	82
Weight	g/m	61	150
Min. bending radius static	mm	23	30
Min. bending radius repeated	mm	70	70
Temperature range	°C	-55 to +125 (-65 to +200 °C on request)	-40 to +85
Tensile load	N	133	133
Inner conductor		solid wire	solid wire
Dielectric		PTFE microporous	PTFE microporous
Outer conductor		flat wire braid	flat wire braid
Barrier		tape/braid	tape/braid
Jacket		FEP	FEP
Ruggedisation		no	stainless steel/PUR
Outer diameter	mm	5.1	10.3
Screening effectiveness (up to 18 GHz)	dB	> 90	> 90
Phase stability vs. flexure (360°, diameter 55 mm)	°el/GHz	< 0.65	< 0.65
Phase stability vs. temperature (-40 to +85 °C)	ppm	< 600	< 600
Assembly phase matching tolerances	°el/GHz	± 0.5	± 0.5
Cable attenuation at 25 °C	dB/m	see graph	see graph
Insertion loss stability vs. bending	dB	± 0.2	± 0.2
Insertion loss stability vs. temperature	%/°C	< 0.21	< 0.21
Insertion loss stability vs. shaking	dB	± 0.1	± 0.1
Power handling	watt	see graph	see graph
Ruggedisation		on request	on request

SUCOFLEX[®] 229

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



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



SUCOFLEX® 229

Available connectors

Connector	Series, pattern	HUBER+SUHNER connector type	SF229	SF229A	Operating frequency GHz	VSWR per connector
SMA	straight cable plug	29094HT	•	•	26.5	1.14
SK	straight cable plug	29094KHT	•	•	29	1.14
N	straight cable plug	29080HT	•	•	18	1.14
TNC	straight cable plug	29714HT	•	•	18	1.14

Stock assemblies

Item no.	Type	Length mm	Frequency GHz	Max. insertion loss at 25 °C dB	Max. VSWR	RoHS compliant
SUCOFLEX_229						
80395241	SF229/SK _m /SK _m /36 inch	914	29	1.84	1.30	yes
80395242	SF229/SK _m /SK _m /48 inch	1219	29	2.30	1.30	yes
80395243	SF229/SK _m /SK _m /72 inch	1829	29	3.20	1.30	yes
80395250	SF229/SMA _m /SMA _m /36 inch	914	26.5	1.71	1.30	yes
80395251	SF229/SMA _m /SMA _m /48 inch	1219	26.5	2.14	1.30	yes
80395252	SF229/SMA _m /SMA _m /72 inch	1829	26.5	2.96	1.30	yes
80395256	SF229/TNC _m /TNC _m /36 inch	914	18	1.42	1.30	yes
80395257	SF229/TNC _m /TNC _m /48 inch	1219	18	1.77	1.30	yes
80395258	SF229/TNC _m /TNC _m /72 inch	1829	18	2.44	1.30	yes
80395253	SF229/N _m /N _m /36 inch	914	18	1.37	1.30	yes
80395254	SF229/N _m /N _m /48 inch	1219	18	1.72	1.30	yes
80395255	SF229/N _m /N _m /72 inch	1829	18	2.39	1.30	yes

SUCOFLEX® 240

The loss revolution for dynamic applications

Product description

- Improved system performance due to reduced phase change over temperature
- Higher signal integrity due to lower loss
- Fully MIL/DTL-17 qualified
- Excellent performance to price ratio
- Stock assemblies available

Product features

- Impedance 50 Ω
- Applicable up to 40 GHz
- For static and dynamic applications
- Ultra low loss
- Outstanding phase stability
- Excellent return loss



High performance

Construction



Recommended connectors

SF240	SMA, SK
	Other connectors available on request


Cable	Inner conductor ①	Dielectric ②	Outer conductor ③	Barrier ④	Outer braid ⑤	Jacket ⑥	Ruggedisation ⑦	Outer diameter
SUCOFLEX_240	CuAg wire	PTFE microporous	CuAg flat wire braid	aluminium/ polyimide tape	CuAg	FEP, clear	no	mm 4.2

Available connectors

Connector	Series, pattern	HUBER+SUHNER connector type	SF240	Operating frequency	VSWR per connector
				GHz	
SK	straight cable plug	29094K	•	40	1.14
SMA	straight cable plug	29094	•	26.5	1.14

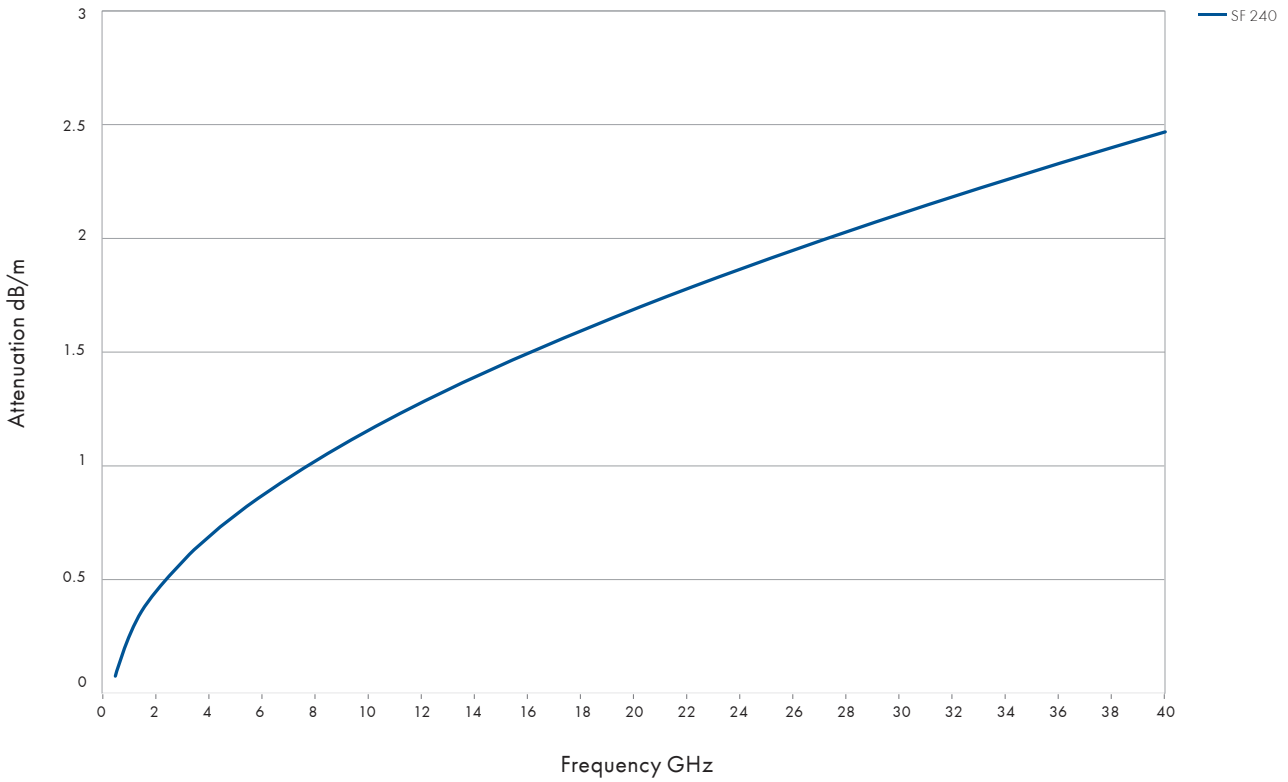
SUCOFLEX® 240

Assembly types

		SUCOFLEX 240
Construction		
Max. operating frequency	GHz	40
Application		static and dynamic
Velocity of propagation	%	82
Weight	g/m	31
Min. bending radius static	mm	8.4
Min. bending radius repeated	mm	25
Temperature range	°C	-55 to +125 (-65 to +200 on request)
Tensile load	N	133
Inner conductor		solid wire
Dielectric		PTFE microporous
Outer conductor		flat wire braid
Barrier		tape/braid
Jacket		FEP
Outer diameter	mm	4.2
Screening effectiveness (up to 18 GHz)	dB	> 90
Phase stability vs. flexure (360°, diameter 55 mm)	°el/GHz	< 0.65
Phase stability vs. temperature (-40 to +85 °C)	ppm	< 600
Assembly phase matching tolerances	°el/GHz	± 0.5
Cable attenuation at 25 °C	dB/m	see graph
Insertion loss stability vs. bending	dB	± 0.2
Insertion loss stability vs. temperature	%/°C	< 0.21
Insertion loss stability vs. shaking	dB	± 0.1
Power handling	watt	see graph
Ruggedisation		on request

SUCOFLEX[®] 240

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



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

