FASNWAVE

PRODUCT CATALOG

Your Delicate RF & Microwave Components Partner

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About Us

Fasnwave Inc. is a specialized manufacturer of DC to 110GHz RF and microwave components, offering a comprehensive range from passive components and active devices to interconnect solutions. Our product portfolio includes filters, couplers, power dividers, switches, amplifiers, frequency sources, cable assemblies, connectors, attenuators, terminations, and circulators/isolators. These components are widely used in test & measurement, military & defense, and wireless communication applications.

With over a decade of industry expertise, we combine cutting-edge R&D with advanced manufacturing capabilities. Our engineering team consists of highly qualified professionals with both top-tier education and extensive industry experience. Our state-of-the-art manufacturing facility features advanced equipment, complete process control, and strict quality management throughout the entire production cycle – from raw material inspection to final shipment.

Backed by a professional global sales and technical support team, we provide customized solutions to clients worldwide, ensuring reliable performance, innovative designs, and responsive service. At Fasnwave, we go beyond manufacturing components – we enable the future of high-frequency connectivity.

Our Main Products:

Products	Description
Cables & Assemblies	Ultra Low Loss, Phase Stable Cable, VNA Cables, Ruggedized Test Cables, Ultra-Flexible Cable and Semi-rigid and Semi-flex cables & assemblies
Filters	Bandpass, bandstop, lowpass and highpass filters
Multiplexer/Combiners	Diplexers, Triplexers...Combiners
Couplers	Single Diectional, Bi-directional, dual directional, 90 & 180 deg. hybrid couplers
Power Dividers/Combiners	Resistive power dividers, Wilkinson power dividers
Amplifiers	Power Amplifiers, low noise amplifers
Attenuators	Fixed, rotary stepped and continously variable attenuators with wide frequency coverage and multiple power options.
Terminations	Terminations with wide frequency coverage and multiple power options.
Frequency Sources	DRO, OCXO, PLDRO, VCO
Switches	Coaxial Switches
Circulators &Isolators	Coaxial, drop-in and surface mount circulators &isolators

Our Advantages:

- With industry-leading performance and advanced technical capability
- 100% Inspection on All Products
- From Prototype to Production, Fully Supported
- Fast Delivery – Most Products Within 4 Weeks

Cables and Assemblies

Fasnwave cable assemblies feature specialized structural designs and advanced wrapping processes, delivering excellent electrical and mechanical performance. Supported by a professional laboratory and rigorous testing methods, Fasnwave products ensure high reliability and consistency. With frequency capability up to 110 GHz, they are well suited for phased array radar, satellite communications, aerospace, production lines, and laboratory testing, ect.

Our Main Cables and Assembly Series:

Series A: Low-Loss & Phase-Stable Cables and Assemblies

Series B: Low-Loss & High-Power Cables and Assemblies

Series C: Interconnection Cables and Assemblies

Series SF: Semi-Flexible RF Cables and Assemblies

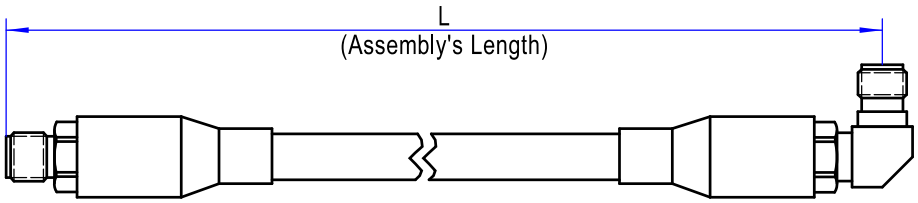
Series SR: Economical Semi-Rigid Cables and Assemblies

Series TR: High-Precision Test Cables and Assemblies

Series VN: VNA Test Cables & Assemblies

Series Z: Low-Loss and Ultra-Flexible Cables and Assemblies

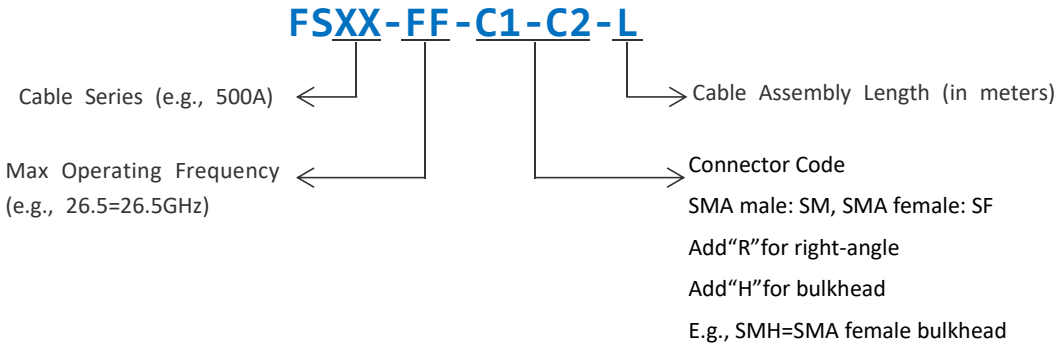
Cable Assembly Length Definition:



Notes:

- Length is measured from one connector end to the other connector end, as shown above. For right-angle connectors, the measurement starts from the centerline of the pin.
- Length is customizable.

Model Number System:



For Example: FS500A-26.5-SM-SFH-1 represent FS500A cable, 26.5GHz, SMA male to SMA female bulkhead, 1 meter length.

Cross Reference

The cross-reference information provided is based on a comparison between selected Fasnwave cable assemblies and comparable cable models from well-known international manufacturers. This reference is intended to assist customers in identifying alternative solutions with similar performance characteristics. Final product selection should be based on detailed specifications and application requirements.

Fasnwave Series	Fasnwave Model	Equivalent Manufacturer	Equivalent Model
A Series	FS150A	Gore	CXN3657
A Series	FS220A	Gore	CXN3506
A Series	FS360A	Gore	CXN3507
A Series	FS400A	Huber&Suhner	SUCOFLEX-102
A Series	FS800A	Huber&Suhner	SUCOFLEX-104
A Series	FS830A	Huber&Suhner	SUCOFLEX-106
B Series	FS460B	Times	SFT142
B Series	FS520B	Times	SFT205
B Series	FS635B	Times	SFT304
B Series	FS1000B	Times	SFT393
B Series	FS1500B	Times	SFT600
C Series	FS280C	Times	T-Flex405
C Series	FS280C	Huber&Suhner	Multiflex86
C Series	FS400C	Times	T-Flex402
C Series	FS400C	Huber&Suhner	Multiflex141
C Series	FS700C	Times	T-Flex401
Z Series	FS600Z	Huber&Suhner	SUCOFLEX-126
SR Series	FS086SR	Times	CLL50086
SR Series	FS141SR	Times	CLL50141
SF Series	FS086SF	Huber&Suhner	Sucoform_86
SF Series	FS141SF	Huber&Suhner	Sucoform_141
SF Series	FS250SF	Huber&Suhner	Sucoform_250

Series A：Low-Loss & Phase-Stable Cables and Assemblies

FASNWAVE's A-Series is a high-performance flexible RF cables and assemblies, available in enhan ced (AX) and armored (AR) versions. It supports frequencies up to 40 GHz with customizable len gths to meet specific application needs.

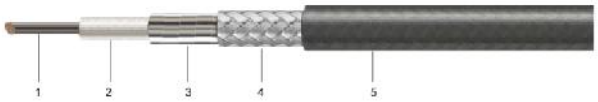
Key features:

- Ultra-low loss
- stable phase/amplitude
- Low PIM
- Excellent temperature phase stability

Applications:

- Phased array radar
- Avionics
- Electronic warfare
- Microwave testing

Cable Construction:



No	Description	Outer Diameter (mm)								Material
		FS150A	FS220A	FS360A	FS400A	FS500A	FS800A	FS830A	FS1000A	
1	Inner Conductor	0.30	0.50	0.91	1.05	1.45	2.30	2.44	3.00	Silver Plated Copper
2	Dielectric	0.88	1.38	2.50	2.85	3.99	6.20	6.50	8.24	Low Density PTFE
3	Inner Shield	1.00	1.54	2.66	3.05	4.19	6.44	6.90	8.48	SPC Strip
4	Outer Shield	1.18	1.95	3.11	3.40	4.60	7.05	7.65	9.20	SPC Braid
5	Jacket	1.50	2.20	3.60	4.00	5.20	7.90	8.30	10.00	PFA

Electronic and Mechanical Specifications:

Description	FS150A	FS220A	FS360A	FS400A	FS500A	FS800A	FS830A	FS1000A
Operating Freq.(GHz)	40	40	40	40	26.5	18	18	10
Cut-off Freq. (GHz)	128	83	46	41	29	18	18	13.5
Impedance	50Ω							
Velocity of Propagation	75%	81%	82%	82%	83%	83%	83%	83%
Shielding Effectiveness	>90dB							
Dielectric Withstanding Voltage(VDC)	600	1000	1000	1500	1500	3000	3000	3000
Passive Intermodulation (PIM)	-155dBc							
Phase Change vs Temperature	<1000PPM	<750PPM@-55~+85 °C						
Static Bending Radius (mm)	8	11	18	20	26	39	42	50
Dynamic Bending Radius (mm)	15	22	36	40	52	79	83	100
Weight (g/m)	5.4	16	33	36	60	130	162	206
Temperature	-55~+125°C			-55~+165°C				-55~+105°C

Typical Cable Attenuation(dB/100m) VS Frequency, @+25 °C, VSWR=1.0

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	16GHz	18GHz	26.5GHz	40GHz	K Factors
FS150A	113.7	161.6	198.5	282.9	328.0	368.0	411.3	-	499.3	611.5	760.4	K1: 3.557846 K2: 0.001221
FS220A	63.7	90.8	111.9	160.4	186.49	209.79	235.16	-	287.06	354.0	444.0	K1: 1.975832 K2: 0.001221
FS360A	37.5	53.4	65.6	93.8	108.9	122.3	136.9	-	166.7	204.8	255.7	K1: 1.168470 K2: 0.000550
FS400A	33.5	47.5	58.3	82.8	95.8	107.2	119.7	-	144.7	176.4	218.1	K1: 1.054470 K2: 0.000180
FS500A	23.4	33.3	41.0	58.5	67.9	76.3	85.4	-	103.8	127.5	-	K1: 0.730000 K2: 0.000328
FS800A	14.7	21	26	37.3	43.4	48.8	54.8	62.8	67	-	-	K1: 0.456300 K2: 0.000320
FS830A	13.3	18.9	23.4	33.6	39.1	44.1	49.5	56.9	60.6	-	-	K1: 0.408997 K2: 0.000320
FS1000A	10.4	15	18.7	27.2	31.9	36.1	40.8	47.2	50.5	-	-	K1: 0.316177 K2: 0.000448

Notes:

Typical attenuation values for Fasnwave cables at various frequencies are listed in the tables above. These values are calculable based on cable construction parameters. Cable attenuation is derived from factors related to the center con ductor characteristics and the dielectric properties of each cable type. The total insertion loss (IL_{total}) is the sum of ca ble attenuation and the loss of both connectors.

Total IL Calculation: $IL_{total} = Atten_{cable} + IL_{conn1} + IL_{conn2}$

Cable attenuation(dB/100m)= $K1*\sqrt{F(MHz)} + K2*F(MHz)$; Connector attenuation(dB) = $0.03*\sqrt{F(GHz)}$

Power Handling(W) VS Frequency, @+40 °C, VSWR=1.0, Sea Level

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	16GHz	18GHz	26.5GHz	40GHz
FS150A	39	27	22	16	14	12	11	-	9	7	6
FS220A	110	77	63	44	38	33	30	-	24	20	16
FS360A	509	358	291	203	175	156	139	-	115	93	75
FS400A	634	447	365	257	222	198	178	-	147	120	97
FS500A	1128	793	645	451	389	346	309	-	254	207	-
FS800A	2303	1614	1309	912	783	696	620	541	507	-	-
FS830A	2433	1703	1380	960	824	731	651	567	532	-	-
FS1000A	3512	2440	1996	1350	1151	1016	900	778	727	-	-

Connectors Options and VSWR

Connectors	FS150A	FS220A	FS360A	FS400A	FS500A	FS800A	FS830A	FS1000A	Freq.(Max)	VSWR (Max)
1.0mm(W)	√								110GHz	1.30:1
1.85mm(V)	√	√							67GHz	1.30:1
2.4mm(2)	√	√	√						40GHz	1.30:1
2.92mm(K)	√	√	√	√	√				40GHz	1.30:1
SSMA(J)		√	√						40GHz	1.30:1
SMP(P)		√							40GHz	1.30:1
SSMP(M)	√	√							40GHz	1.30:1
3.5mm(3)		√	√	√	√				33GHz	1.25:1
SMA(S)	√	√	√	√	√	√	√		26.5GHz	1.25:1

Connectors	FS150A	FS220A	FS360A	FS400A	FS500A	FS800A	FS830A	FS1000A	Freq.(Max)	VSWR (Max)
N(N)		√	√	√	√	√	√	√	18GHz	1.25:1
TNC(T)			√	√	√	√			18GHz	1.25:1
SC (E)						√	√	√	6GHz	1.25:1
BNC(B)		√	√	√	√				4GHz	1.25:1

Note: Connector material, gender and other connector options may be available upon request. Please contact Fasnwave to confirm availability and current stock. The connectors listed above represent standard options and may not include the full range of Fasnwave connector offerings.

Series AX: Enhanced Low-Loss & Phase-Stable Cables and Assemblies

Fasnwave's AX Series is an enhance version of our A-series cable assemblies , supporting up to 40 GHz with customizable lengths.

Key features:

- Ultra-low loss
- stable phase/amplitude
- Low PIM
- Excellent temperature phase stability

Applications:

- Phased array radar
- Avionics
- Electronic warfare
- Microwave testing

Cable Construction:

No	Description	Outer Diameter (mm)				Material
		FS360AX	FS400AX	FS500AX	FS750AX	
1	Inner Conductor	0.91	1.05	1.45	2.10	Silver plated Copper
2	Dielectric	2.50	2.85	3.99	5.70	Low Density PTFE
3	Inner Shield	2.66	3.05	4.19	5.95	SPC Strip
4	Interlayer	2.95	3.30	4.45	6.20	Low Density PTFE
5	Outer Shield	3.35	3.65	4.85	6.80	SPC Braid
6	Jacket	3.90	4.20	5.40	7.60	PFA

Electronic and Mechanical Specifications:

Description	FS360AX	FS400AX	FS500AX	FS750AX
Operating Freq.(GHz)	40	40	26.5	18
Cut-off Freq. (GHz)	46	41	29	20
Impedance	50Ω			
Velocity of Propagation	82%		83%	
Shielding Effectiveness	>90dB			
Dielectric Withstanding Voltage(VDC)	1000	1500	1500	2500
Passive Intermodulation (PIM)	-155dBc			
Phase Change vs Temperature	<750PPM@-55~+85 °C			
Static Bending Radius (mm)	20	21	27	37
Dynamic Bending Radius (mm)	40	42	54	74
Weight (g/m)	35	37	63	118
Temperature	-55~+165°C			

Typical Cable Attenuation(dB/100m) VS Frequency, @+25 °C, VSWR=1.0

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	18GHz	26.5GHz	40GHz	K Factors
FS360AX	37.5	53.4	65.6	93.8	108.9	122.3	136.9	166.7	204.8	255.7	K1: 1.168470 K2: 0.000550
FS400AX	33.5	47.5	58.3	82.8	95.8	107.2	119.7	144.7	176.4	218.1	K1: 1.054470 K2: 0.000180

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	18GHz	26.5GHz	40GHz	K Factors
FS500AX	23.4	33.3	41.0	58.5	67.9	76.3	85.4	103.8	127.5	-	K1: 0.730000 K2: 0.000328
FS750AX	16.7	23.7	29.1	41.4	47.9	53.7	59.9	68.2	72.5	-	K1: 0.526279 K2: 0.000104

Notes:

Typical attenuation values for Fasnwave cables at various frequencies are listed in the tables above. These values are calculable based on cable construction parameters. Cable attenuation is derived from factors related to the center con ductor characteristics and the dielectric properties of each cable type. The total insertion loss (IL_{total}) is the sum of ca ble attenuation and the loss of both connectors.

Total IL Calculation: $IL_{total} = Atten_{cable} + IL_{conn1} + IL_{conn2}$

Cable attenuation(dB/100m)= $K1*\sqrt{F(MHz)} + K2*F(MHz)$; Connector attenuation(dB) = $0.03*\sqrt{F(GHz)}$

Power Handling(W) VS Frequency, @+40 °C, VSWR=1.0, Sea Level

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	18GHz	26.5GHz	40GHz
FS360AX	509	358	291	203	175	156	139	115	93	75
FS400AX	634	447	365	257	222	198	178	147	120	97
FS500AX	1128	793	645	451	389	346	309	254	207	-
FS750AX	1740	1227	1000	704	608	543	487	427	402	-

Connectors Options and VSWR

Connectors	FS360AX	FS400AX	FS500AX	FS750AX	Freq.(Max)	VSWR (Max)
2.4mm(2)	√				40GHz	1.30:1
2.92mm(K)	√	√	√		40GHz	1.30:1
SSMA(J)	√				40GHz	1.30:1
3.5mm(3)	√	√	√		33GHz	1.25:1
SMA(S)	√	√	√	√	26.5GHz	1.25:1
N(N)	√	√	√	√	18GHz	1.25:1
TNC(T)	√	√	√	√	18GHz	1.25:1
SC(E)				√	6GHz	1.25:1
BNC(B)	√	√	√	√	4GHz	1.25:1

Note 1: Connector material, gender and other connector options may be available upon request. Please contact Fasnw ave to confirm availability and current stock. The connectors listed above represent standard options and may not inc lude the full range of Fasnwave connector offerings.

Series B: Low Loss & High Power Cables & Assemblies

Fasnwave's B Series offers low-loss, high-power RF cables and assemblies designed for reliable p erformance up to 18 GHz, with fully customizable lengths.

Key features:

- High power handling
- Low loss & stable VSWR
- High shielding effectiveness
- Low PIM performamce

Applications:

- High Power Transmission
- Wireless Telecom
- Aviation Electronics
- Electronic Warfare

Cable Construction:

No	Description	Outer Diameter (mm)							Material
		FS460B	FS520B	FS635B	FS800B	FS1000B	FS1200B	FS1500B	
1	Inner Conductor	1.02	1.29	1.57	2.06	2.44	3.50	4.40	Silver plated Copper
2	Dielectric	3.07	3.85	4.72	5.89	7.24	9.90	12.50	Low Density PTFE
3	Inner Shield	3.27	4.05	4.96	6.05	7.48	10.17	12.74	SPC Strip
4	Interlayer	3.43	4.20	5.10	6.17	7.61	10.30	12.85	High-Temp Aluminum Foil
5	Outer Shield	4.00	4.80	5.66	6.81	8.19	11.02	13.60	SPC Braid
6	Jacket	4.60	5.20	6.35	7.62	9.30	12.00	14.70	PFA

Electronic and Mechanical Specifications:

Description	FS460B	FS520B	FS635B	FS800B	FS1000B	FS1200B	FS1500B
Operating Freq.(GHz)	18	18	18	18	10	10	6
Cut-off Freq. (GHz)	35	28	27	19	15	11	8
Impedance	50Ω						
Velocity of Propagation	76%						
Shielding Effectiveness	>90dB						
Dielectric Withstanding Voltage(VDC)	1500	2000	2500	3000	4000		
Passive Intermodulation (PIM)	-155dBc						
Static Bending Radius (mm)	23	26	32	38	47	60	74
Dynamic Bending Radius (mm)	46	52	64	76	93	120	147
Weight (g/m)	53	67	93	130	193	300	432
Temperature	-55~+200°C						

Typical Cable Attenuation(dB/100m) VS Frequency, @+25 °C, VSWR=1.0

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	16GHz	18GHz	K Factors
FS460B	35.4	50.4	62	88.8	103.2	116	129.9	148.7	158.3	K1: 1.099485 K2: 0.000602
FS520B	27.7	39.5	48.7	69.9	81.3	91.5	102.7	117.8	125.5	K1: 0.856234 K2: 0.000591

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	16GHz	18GHz	K Factors
FS635B	22.2	31.7	39.2	56.4	65.8	74.2	83.4	95.8	102.2	K1: 0.682743 K2: 0.000591
FS800B	17.6	25.2	31.2	45.1	52.7	59.5	67.1	77.3	82.6	K1: 0.536417 K2: 0.000591

Model	1GHz	2GHz	3GHz	4GHz	5GHz	6GHz	7GHz	8GHz	10GHz	K Factors
FS1000B	14.7	21.1	26.2	30.6	34.5	38.2	41.5	44.7	50.6	K1: 0.446080 K2: 0.000600
FS1200B	13.0	18.7	23.3	27.2	30.7	33.9	37.0	39.8	45.2	K1: 0.391680 K2: 0.000600

Model	0.1GHz	0.3GHz	0.5GHz	0.8GHz	1GHz	2GHz	3GHz	4GHz	5GHz	K Factors
FS1500B	3.1	5.4	7.1	9.1	10.2	14.8	18.4	24.5	27.1	K1: 0.304208 K2: 0.000591

Notes:

Typical attenuation values for Fasnwave cables at various frequencies are listed in the tables above. These values are calculable based on cable construction parameters. Cable attenuation is derived from factors related to the center con ductor characteristics and the dielectric properties of each cable type. The total insertion loss (IL_{total}) is the sum of ca ble attenuation and the loss of both connectors.

Total IL Calculation: $IL_{total} = Atten_{cable} + IL_{conn1} + IL_{conn2}$

Cable attenuation(dB/100m)= $K1*\sqrt{F(MHz)} + K2*F(MHz)$; Connector attenuation(dB) = $0.03*\sqrt{F(GHz)}$

Power Handling(W) VS Frequency, @+40 °C, VSWR=1.0, Sea Level

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	16GHz	18GHz
FS460B	569	400	324	227	195	174	155	135	127
FS520B	750	526	426	297	255	227	202	176	165
FS635B	1020	713	557	401	344	305	271	236	221
FS800B	1892	1098	887	613	524	464	412	358	335

Model	1GHz	2GHz	3GHz	4GHz	5GHz	6GHz	7GHz	8GHz	10GHz
FS1000B	2485	1728	1393	1194	1058	958	880	818	722
FS1200B	3323	2306	1856	1588	1406	1271	1167	1083	955

Model	0.1GHz	0.3GHz	0.5GHz	0.8GHz	1GHz	2GHz	3GHz	4GHz	5GHz
FS1500B	14724	8384	6433	5031	4472	3088	2477	1866	1684

Connectors Options and VSWR

Connectors	FS460B	FS520B	FS635B	FS800B	FS1000B	FS1200B	FS1500B	Freq.(Max)	VSWR (Max)
SMA(S)	√	√	√	√	√	√	√	26.5GHz	1.25:1
N(N)	√	√	√	√	√	√	√	18GHz	1.25:1

Note: Connector material, gender and other connector options may be available upon request. Please contact Fasnwav e to confirm availability and current stock. The connectors listed above represent standard options and may not inclu de the full range of Fasnwave connector offerings.

Series C: Interconnection Cables & Assemblies

Fasnwave's C Series is a cost-effective interconnect cable solution, offering a flexible alternative t o semi-flex and semi-rigid cables and supporting frequencies up to 67 GHz.

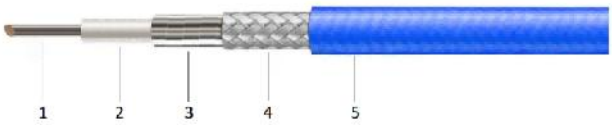
Key features:

- Low VSWR
- Stable phase performance

Applications:

- Cabinet & chassis interconnect
- RF/microwave test setups

Cable Construction:



Description	Outer Diameter (mm)				Material
	FS160C	FS280C	FS400C	FS700C	
Inner Conductor	0.30	0.53	0.94	1.63	Silver plated Copper
Dielectric	0.97	1.63	3.00	5.30	PTFE
Inner Shield	1.12	1.83	3.20	5.55	SPC Strip
Outer Shield	1.32	2.18	3.55	6.17	SPC Braid
Jacket	1.60	2.65	4.00	7.00	FEP

Electronic and Mechanical Specifications:

Description	FS160C	FS280C	FS400C	FS700C
Operating Freq.(GHz)	67	40	26.5	18
Cut-off Freq. (GHz)	110	61	34	19
Impedance	50Ω			
Velocity of Propagation	70%			
Shielding Effectiveness	>90dB			
Dielectric Withstanding Voltage(VDC)	500	1000	1500	3000
Static Bending Radius (mm)	8	14	20	35
Dynamic Bending Radius (mm)	15	27	40	70
Weight (g/m)	6	20	41	140
Temperature	-55~+125°C			

Typical Cable Attenuation(dB/100m) VS Frequency, @+25 °C, VSWR=1.0

Model	0.5GHz	1GHz	3GHz	6GHz	10GHz	16GHz	18GHz	26.5GHz	40GHz	67GHz	K Factors
FS160C	95.4	135.2	235.1	334.0	433.0	550.49	584.7	713.3	882.46	1154.5	K1: 4.248276 K2: 0.000820

Model	1GHz	2GHz	3GHz	6GHz	8GHz	12.4GHz	18GHz	26.5GHz	40GHz	-	K Factors
FS280C	62.8	91.1	113.7	167.7	197.9	256.0	320.4	407.2	529.5	-	K1: 1.860236 K2: 0.003937

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	18GHz	26.5GHz	-	K Factors
FS400C	37.6	55.1	69.3	103.9	123.5	141.6	161.9	205.3	264.7	-	K1: 1.082677 K2: 0.003337

FS700C	25.7	38.7	49.5	77.0	93.1	108.3	125.5	163.3	-	-	K1: 0.688976 K2: 0.003937

Notes:

Typical attenuation values for Fasnwave cables at various frequencies are listed in the tables above. These values are calculable based on cable construction parameters. Cable attenuation is derived from factors related to the center con ductor characteristics and the dielectric properties of each cable type. The total insertion loss (IL_{total}) is the sum of ca ble attenuation and the loss of both connectors.

Total IL Calculation: $IL_{total} = Atten_{cable} + IL_{conn1} + IL_{conn2}$

Cable attenuation(dB/100m)= $K1*\sqrt{F(MHz)} +K2*F(MHz)$; Connector attenuation(dB) = $0.03*\sqrt{F(GHz)}$

Power Handling(W) VS Frequency, @+40 °C, VSWR=1.0, Sea Level

Model	0.5GHz	1GHz	3GHz	6GHz	10GHz	16GHz	18GHz	26.5GHz	40GHz	67GHz
FS160C	100	71	41	29	22	17	16	13	11	8

Model	1GHz	2GHz	3GHz	6GHz	8GHz	12.4GHz	18GHz	26.5GHz	40GHz	-
FS280C	119	82	66	45	38	29	23	18	14	-

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	18GHz	26.5GHz	-
FS400C	290	198	157	105	88	77	67	53	41	-
FS700C	561	373	291	187	155	133	115	88	-	-

Connectors Options and VSWR

Connectors	FS160C	FS280C	FS400C	FS700C	Freq.(Max)	VSWR (Max)
1.85mm(V)	√	√			67GHz	1.30:1
SSMP(M)	√	√			67GHz	1.30:1
2.4mm(2)	√	√			40GHz	1.30:1
2.92mm(K)	√	√	√		40GHz	1.30:1
SSMA(J)	√	√			40GHz	1.30:1
SMP(P)	√	√			40GHz	1.30:1
3.5mm(3)	√	√	√		33GHz	1.25:1
SMA(S)	√	√	√	√	26.5GHz	1.25:1
N(N)		√	√	√	18GHz	1.25:1
TNC(T)			√		18GHz	1.25:1
MCX(C)	√	√		√	6GHz	1.25:1
MMCX(X)	√	√			6GHz	1.25:1
BNC(B)		√	√		4GHz	1.25:1

Note: Connector material, gender and other connector options may be available upon request. Please contact Fasnwav e to confirm availability and current stock. The connectors listed above represent standard options and may not inclu de the full range of Fasnwave connector offerings.

Series SF:Semi-Flexible RF Cables & Assemblies

Fasnwave's Semi-Flexible RF Cable (SF Series), operates up to 40 GHz and is available in both st andard and FEP-jacketed versions.

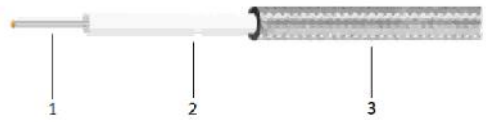
Key features:

- Hand Formable
- Small bend radius
- Cost-Effective Cable

Applications:

- RF module interconnections
- Radar and antenna feed systems
- Rack/cabinet wiring in limited-space

Cable Construction:



Series SF

Series SF-F

No	Description	Outer Diameter (mm)								Material
		FS047SF	FS047SF-F	FS086SF	FS086SF-F	FS141SF	FS141SF-F	FS250SF	FS250SF-F	
1	Inner Conductor	0.29	0.29	0.52	0.52	0.93	0.93	1.63	1.63	Silver plated Copper
2	Dielectric	0.94	0.94	1.65	1.65	2.98	2.98	5.30	5.30	PTFE
3	Outer Shield	1.19	1.19	2.15	2.15	3.52	3.52	6.20	6.20	Tinned Copper Braid
4	Jacket	-	1.65	-	2.65	-	4.15	-	7.00	FEP

Electronic and Mechanical Specifications:

Description	FS047SF	FS047SF-F	FS086SF	FS086SF-F	FS141SF	FS141SF-F	FS250SF	FS250SF-F
Operating Freq.(GHz)	40	40	40	40	33	33	18	18
Impedance	50Ω							
Signal delay	4.7ns/m							
Velocity of Propagation	70%							
Shielding Effectiveness	>100dB							
Dielectric Withstanding Voltage(VDC)	500		1000		1500		2500	
Static Bending Radius (mm)	3.18	4.0	6.0	6.0	8.0	8.0	30	30
Dynamic Bending Radius (mm)	12	20	20	20	40	40	120	120
Weight (g/m)	6	8	16	19	44	52	120	140
Temperature	-55~+125°C							

Typical Cable Attenuation(dB/100m) VS Frequency, @+25 °C, VSWR=1.0

Model	0.5GHz	1GHz	2GHz	3GHz	5GHz	6GHz	10GHz	18GHz	26.5GHz	33GHz	40GHz	K Factors
FS047SF FS047SF-F	82	118	171	213	-	313	420	595	753	-	977	K1: 3.512916 K2: 0.006852
FS086SF FS086SF-F	50	72	105	131	-	194	261	374	477	-	623	K1: 2.115000 K2: 0.004990
FS141SF FS141SF-F	28	41	60	75	-	112	152	219	281	369	-	K1: 1.193399 K2: 0.003261
FS250SF FS250SF-F	16	24	35	45	62	69	96	144	-	-	-	K1: 0.645600 K2: 0.003180

Notes:

Typical attenuation values for Fasnwave cables at various frequencies are listed in the tables above. These values are calculable based on cable construction parameters. Cable attenuation is derived from factors related to the center con ductor characteristics and the dielectric properties of each cable type. The total insertion loss (IL_{total}) is the sum of ca ble attenuation and the loss of both connectors.

Total IL Calculation: $IL_{total} = Atten_{cable} + IL_{conn1} + IL_{conn2}$

Cable attenuation(dB/100m)= $K1*\sqrt{F(MHz)} + K2*F(MHz)$; Connector attenuation(dB) = $0.03*\sqrt{F(GHz)}$

Power Handling(W) VS Frequency, @+40 °C, VSWR=1.0, Sea Level

Model	0.5GHz	1GHz	2GHz	3GHz	5GHz	6GHz	10GHz	18GHz	26.5GHz	33GHz	40GHz
FS047SF FS047SF-F	45	32	23	18	-	13	10	8	6	-	5
FS086SF FS086SF-F	229	162	115	94	-	66	51	38	31	-	26
FS141SF FS141SF-F	601	425	301	245	-	174	134	100	83	74	-
FS250SF FS250SF-F	1301	920	651	531	411	376	291	217	-	-	-

Connectors Options and VSWR

Connectors	FS047SF	FS047SF-F	FS086SF	FS086SF-F	FS141SF	FS141SF-F	FS250SF	FS250SF-F	Freq.(Max)	VSWR (Max)
1.85mm(V)	√	√	√	√					67GHz	1.30:1
SSMP(M)	√	√	√	√					67GHz	1.30:1
2.4mm(2)	√	√	√	√					40GHz	1.30:1
2.92mm(K)	√	√	√	√	√	√			40GHz	1.30:1
SSMA(J)	√	√	√	√					40GHz	1.30:1
SMP(P)	√	√	√	√					40GHz	1.30:1
3.5mm(3)	√	√	√	√			√	√	33GHz	1.25:1
SMA(S)	√	√	√	√	√	√	√	√	26.5GHz	1.25:1
N(N)					√	√	√	√	18GHz	1.25:1
MCX(C)	√	√	√	√					6GHz	1.25:1

Note: Connector material, gender and other connector options may be available upon request. Please contact Fasnwave to confirm availability and current stock. The connectors listed above represent standard options and may not include the full range of Fasnwave connector offerings.

Series SR: Semi-Rigid Cables & Assemblies

Fasnwave's SR Series offers two semi-rigid cable options—standard cost-effective SR and low-loss SR-X—supporting frequencies up to 40 GHz.

Key features:

- High shielding effectiveness
- Low PIM
- Low loss and low VSWR

Applications:

- Board-to-board interconnect
- Module interconnect
- Airborne/phased-array radar
- Missile-borne systems

Cable Construction:

No	Description	Outer Diameter (mm)							Material
		FS047SR	FS086SR	FS141SR	FS250SR	FS086SR-X	FS141SR-X	FS250SR-X	
1	Inner Conductor	0.29	0.53	0.94	1.63	0.56	0.99	1.78	Silver plated Copper
2	Dielectric	0.95	1.68	2.98	5.28	1.68	3.00	5.33	PTFE
3	Outer Conductor	1.22	2.18	3.58	6.35	2.18	3.58	6.35	Tri-metal plated seamless copper tube

Electronic and Mechanical Specifications:

Description	FS047SR	FS086SR	FS141SR	FS250SR	FS086SR-X	FS141SR-X	FS250SR-X
Operating Freq.(GHz)	40	40	26.5	18	40	26.5	18
Cut-off Freq.(GHz)	110	59	34	24	64	36	19
Impedance	50Ω						
Velocity of Propagation	70%				76%		
Shielding Effectiveness	>165dB						
Dielectric Withstanding Voltage(VDC)	100	500	500	500	500	1000	2200
Static Bending Radius (mm)	4.2	7	10	30	7	15	32
Weight (g/m)	4	21	47	146	21	47	136
Temperature	-55~+125°C				-55~+250°C		

Typical Cable Attenuation(dB/100m) VS Frequency, @+25 °C, VSWR=1.0

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	18GHz	26.5GHz	40GHz	K Factors
FS047SR	113.6	162.4	-	288.6	336.4	-	425.9	522.0	646.9	816.3	K1: 3.5016 K2: 0.0029
FS086SR	64.9	93.1	-	166.6	194.7	-	247.6	304.9	379.9	482.7	K1: 1.985320 K2: 0.002140
FS086SR-X	58.3	82.8	-	144.9	168.0	-	210.6	255.5	312.8	388.7	K1: 1.825328 K2: 0.000590
FS141SR	38.2	55.5	-	102.4	120.8	137.7	156.4	195.9	249.2	-	K1: 1.131702 K2: 0.002450
FS141SR-X	31.7	45.5	-	81.7	95.6	108.1	121.8	150.3	187.7	-	K1: 0.965845 K2: 0.001151

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	18GHz	26.5GHz	40GHz	K Factors
FS250SR	22.5	34.1	44.0	69.1	84.0	98.1	114.2	149.7	-	-	K1: 0.587270 K2: 0.003937
FS250SR-X	18.3	26.2	32.4	47.0	54.9	62.1	69.9	86.1	-	-	K1: 0.557600 K2: 0.000630

Notes:

Typical attenuation values for Fasnwave cables at various frequencies are listed in the tables above. These values are calculable based on cable construction parameters. Cable attenuation is derived from factors related to the center con ductor characteristics and the dielectric properties of each cable type. The total insertion loss (IL_{total}) is the sum of ca ble attenuation and the loss of both connectors.

Total IL Calculation: $IL_{total} = Atten_{cable} + IL_{conn1} + IL_{conn2}$

Cable attenuation(dB/100m)= $K1*\sqrt{F(MHz)} + K2*F(MHz)$; Connector attenuation(dB) = $0.03*\sqrt{F(GHz)}$

Power Handling(W) VS Frequency, @+40 °C, VSWR=1.0, Sea Level

Model	1GHz	2GHz	3GHz	6GHz	8GHz	10GHz	12.4GHz	18GHz	26.5GHz	40GHz
FS047SR	147	103	-	58	50	-	39	32	26	20
FS086SR	256	179	-	100	85	-	67	55	44	34
FS086SR-X	259	182	-	104	90	-	72	59	48	39
FS141SR	1121	772	-	419	355	311	274	219	172	-
FS141SR-X	1121	781	-	435	372	329	292	236	189	-
FS250SR	1455	959	745	474	390	334	287	219	-	-
FS250SR-X	1455	1014	819	566	484	428	380	308	-	-

Connectors Options1 and VSWR

	FS047SR	FS086SR	FS086SR-X	FS141SR	FS141SR-X	FS250SR	FS250SR-X	Freq.(Max)	VSWR (Max)
1.85mm(V)	√	√	√					67GHz	1.30:1
SSMP(M)	√	√	√					67GHz	1.30:1
2.4mm(2)	√	√	√					40GHz	1.30:1
2.92mm(K)	√	√	√	√	√			40GHz	1.30:1
SSMA(J)	√	√	√					40GHz	1.30:1
SMP(P)	√	√	√					40GHz	1.30:1
3.5mm(3)	√	√	√					33GHz	1.25:1
SMA(S)	√	√	√	√	√	√	√	26.5GHz	1.25:1
N(N)				√	√	√	√	18GHz	1.25:1
MCX(C)	√	√	√					6GHz	1.25:1

Note: Connector material, gender and other connector options may be available upon request. Please contact Fasnwav e to confirm availability and current stock. The connectors listed above represent standard options and may not inclu de the full range of Fasnwave connector offerings.

Series TR: High Precision Test Cables & Assemblies

Fasnwave's TR series test cables feature an integrated armored structure with multi-layer protect ion. Frequency is up to 110 GHz and length is customizable.

Key features:

- Stable phase&amplitude performance
- Integrated armored design
- Low VSWR and low IL

Applications:

- VNA testing
- microwave labs
- production line testing
- automated test systems

Cable Construction:

No	Description	Outer Diameter (mm)					Material
		FS18TR	FS26TR	FS50TR	FS67TR	FS110TR	
1	Inner Conductor	2.39	1.44	0.72	0.5	0.31	Silver plated Copper
2	Dielectric	6.16	3.85	2.10	1.38	0.88	Low Density PTFE
3	Inner Shield	6.40	4.05	2.25	1.54	1.00	Silver Plated Copper Strip
4	Interlayer	6.70	4.30	2.55	1.82	1.20	Low Density PTFE
5	Outer Shield	7.25	4.65	3.01	2.17	1.45	Silver Plated Copper Braid
6	Jacket	7.80	5.10	3.60	2.45	1.85	FEP
7	Armor* 7-8	9.45	6.70	5.10	3.60	2.70	Silver plated Copper
8	Armor* 9-10	10.40	7.60	6.10	4.80	3.90	PTFE

Electronic and Mechanical Specifications:

Description	FS18TR	FS26TR	FS50TR	FS67TR	FS110TR
Operating Freq.(GHz)	18	26.5	50	67	110
Cut-off Freq.(GHz)	18	29	50	82	128
Impedance	50Ω				
VSWR	≤1.2@18 GHz	≤1.25@26.5 GHz	≤1.25@50 GHz	≤1.3@67GHz	≤1.5@110GHz
Phase Stability	±3°	±5°	±7°	±7°	±10°
Amplitude Stability	±0.10dB	±0.05dB	±0.05dB	±0.05dB	±0.1dB
Velocity of Propagation	84%	82%	76%	81%	77%
Shielding Effectiveness	>90dB				
Dielectric Withstanding Voltage(VDC)	2500	1500	1200	800	600
Static Bending Radius (mm) without armor	39	25.5	18	13	10
Static Bending Radius (mm) with armor	52	38	30	24	20
Dynamic Bending Radius(mm) without armor	78	51	36	25	20
Dynamic Bending Radius(mm) with armor	104	76	60	48	40
Weight (g/m) without armor	123	55	31	16	8
Weight (g/m) with armor	220	135	95	52	33
Temperature	-55~+125°C				

Typical Cable Attenuation(dB/100m) VS Frequency, @+25 °C, VSWR=1.0

Model	1 GHz	2 GHz	3 GHz	6 GHz	8 GHz	10 GHz	12.4 GHz	18 GHz	26.5 GHz	40 GHz	50 GHz	67 GHz	75 GHz	110 GHz	K Factors
FS18TR	16.7	23.8	29.3	42.1	48.9	55.0	61.7	75.3	-	-	-	-	-	-	K1: 0.518300 K2: 0.000320
FS26TR	27.1	38.9	48.1	69.6	81.3	91.9	103.5	127.4	158.8	-	-	-	-	-	K1: 0.828800 K2: 0.000900
FS50TR	48.1	68.3	83.9	119.4	138.4	155.2	173.4	210.2	257.1	319.2	359.2	-	-	-	K1: 1.507808 K2: 0.000440
FS67TR	63.7	90.8	111.9	160.4	186.5	209.8	235.2	287.1	354.0	444.0	502.9	593.2	-	-	K1: 1.975832 K2: 0.001221
FS110TR	113.7	161.6	198.5	282.9	328.0	368.0	411.3	499.3	611.5	760.4	856.6	1002.7	1065.9	1314.3	K1: 3.557846 K2: 0.001221

Notes:

Typical attenuation values for Fasnwave cables at various frequencies are listed in the tables above. These values are calculable based on cable construction parameters. Cable attenuation is derived from factors related to the center con ductor characteristics and the dielectric properties of each cable type. The total insertion loss (IL_{total}) is the sum of ca ble attenuation and the loss of both connectors.

Total IL Calculation: $IL_{total} = Atten_{cable} + IL_{conn1} + IL_{conn2}$

Cable attenuation(dB/100m)= $K1*\sqrt{F(MHz)} + K2*F(MHz)$; Connector attenuation(dB) = $0.03*\sqrt{F(GHz)}$

Power Handling(W) VS Frequency, @+40 °C, VSWR=1.0, Sea Level

Model	1 GHz	2 GHz	3 GHz	6 GHz	8 GHz	10 GHz	12.4 GHz	18 GHz	26.5 GHz	40 GHz	50 GHz	67 GHz	75 GHz	110 GHz
FS18TR	1602	1124	912	636	547	486	434	356	-	-	-	-	-	-
FS26TR	821	573	463	320	274	242	215	175	140	-	-	-	-	-
FS50TR	506	356	290	204	176	157	140	116	95	76	68	-	-	-
FS67TR	110	77	63	44	38	33	30	24	20	16	-	12	-	-
FS110TR	39	27	22	16	14	-	-	9	7	6	-	4	4	3

Connectors Options and VSWR

Connectors	FS18TR	FS26TR	FS50TR	FS67TR	FS110TR	Freq.(Max)	VSWR (Max)
1.0mm(W)					√	110GHz	1.30:1
1.85mm(V)				√	√	67GHz	1.30:1
SSMP(M)				√	√	67GHz	1.30:1
2.4mm(2)			√	√	√	40GHz	1.30:1
2.92mm(K)		√	√	√	√	40GHz	1.30:1
SSMA(J)			√	√	√	40GHz	1.30:1
SMP(P)				√	√	40GHz	1.30:1
3.5mm(3)		√	√	√	√	33GHz	1.25:1
SMA(S)	√	√	√	√	√	26.5GHz	1.25:1
N(N)	√	√	√	√		18GHz	1.25:1
TNC(T)	√	√				18GHz	1.25:1
MCX(C)				√	√	6GHz	1.25:1
MMCX(X)				√	√	6GHz	1.25:1
BNC(B)		√				4GHz	1.25:1

Series VN: VNA Test Cables & Assemblies

VN Series VNA cables & assemblies are designed for high-precision VNA test. They support frequ encies up to 110 GHz and offer customizable lengths.

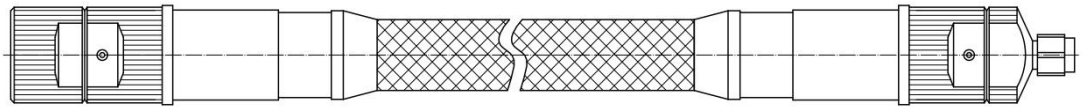
Key features:

- Reinforced NMD connectors
- Optimized mechanical structure
- Low VSWR & IL
- Phase and amplitude stability

Applications:

- Laboratories
- Production lines
- And microwave test systems

Cable Construction:



Electronic and Mechanical Specifications:

Description	FSVN18		FSVN26		FSVN40		FSVN50		FSVN67		FSVN110	
Electrical Specifications												
Operating Freq.(GHz)	18		26.5		40		50		67		110	
Impedance	50											
VSWR(Max.)	1.25:1		1.25:1		1.30:1		1.30:1		1.30:1		1.40:1	
Velocity of Propagation(RMS)	76%				83%		76%					
Shielding Effectiveness	≥90dB											
Dielectric Withstanding Voltage	2KV(RMS)		1KV(RMS)		1KV(RMS)		1KV(RMS)		500V(RMS)		300V(RMS)	
Phase Change VS Bending(Max.)	±2.4° @18GHz		±2.7° @26.5GHz		±4° @40GHz		±7° @50GHz		±6.7° @67GHz		±9.0° @110GHz	
Amp. Change VS Bending(Max. dB)	±0.03 @18GHz		±0.03 @26.5GHz		±0.04 @40GHz		±0.05 @50GHz		±0.08 @67GHz		±0.15 @110GHz	
Mechanical Specifications												
Outer Braid	Polyester-PET											
Outer Diameter(mm)	15.2										8.0	
Dynamic Bending Radius(mm)	150										75	
Connector(Standard or NMD Optional)	N		3.5mm		2.92mm		2.4mm		1.85mm		1.0mm	
Standard Lengths(M)	0.61	0.91	0.61	0.91	0.61	0.91	0.61	0.91	0.61	0.91	0.61	0.91
Standard Lengths VS IL.(dB typ.)	1.2	1.6	1.7	2.4	2.0	2.8	2.8	3.8	4.6	6.5	9.2	13.2
Environmental Specifications												
Temperature	-55°C~+105 °C											

Series Z: Low Loss and Ultra-Flexible Cables & Assemblies

Fasnwave's Z Series is our ultra-flexible RF cable line, supporting frequencies up to 40 GHz with fully customizable lengths.

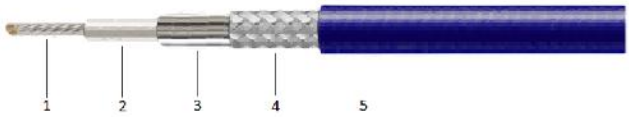
Key features:

- Stranded inner conductor
- Ultra-flexible cable
- Resistant to harsh outdoor enviro nments

Applications:

- Test and Measurement
- Phase Array Radar
- Mobile Device

Cable Construction:



No	Description	Outer Diameter (mm)				Material
		FS360Z	FS500Z	FS600Z	FS800Z	
1	Inner Conductor	0.72	1.02	1.44	1.88	Silver plated Copper
2	Dielectric	2.05	3.00	4.15	5.50	Low Density PTFE
3	Inner Shield	2.22	3.20	4.35	5.74	SPC Strip
4	Outer Shield	2.66	3.78	4.80	6.31	SPC Braid
5	Jacket	3.60	5.00	6.00	8.00	PUA

Electronic and Mechanical Specifications:

Description	FS360Z	FS500Z	FS600Z	FS800Z
Operating Freq.(GHz)	40	26.5	26.5	18
Cut-off Freq. (GHz)	51	35	29.5	20
Impedance	50Ω			
Velocity of Propagation	76%			
Shielding Effectiveness	>90dB			
Dielectric Withstanding Voltage(VDC)	500	1600	1700	2000
Static Bending Radius (mm)	18	25	30	40
Dynamic Bending Radius (mm)	36	50	60	80
Weight (g/m)	27	51	72	116
Temperature	-55~+85°C			

Typical Cable Attenuation(dB/100m) VS Frequency, @+25 °C, VSWR=1.0

Model	0.3 GHz	0.5 GHz	1 GHz	2 GHz	3 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12.4 GHz	18 GHz	26.5 GHz	40 GHz	K Factors
FS360Z	-	-	51.9	74.4	92.1	-	133.4	156.0	176.4	198.7	244.9	305.5	388.8	K1: 1.582929 K2: 0.001806
FS500Z	-	26.7	38.5	55.9	69.8	-	103.2	121.9	139.0	157.9	198.0	252.1	-	K1: 1.136600 K2: 0.002530
FS600Z	-	-	28.7	41.2	50.9	59.3	73.6	86	97.1	109.2	134.3	167.2	-	K1: 0.880600 K2: 0.000900
FS800Z	9.5	12.5	18.2	26.7	33.8	-	50.9	60.7	69.8	80	101.9	-	-	K1: 0.517315 K2: 0.001806

Notes:

Typical attenuation values for Fasnwave cables at various frequencies are listed in the tables above. These values are calculable based on cable construction parameters. Cable attenuation is derived from factors related to the center con ductor characteristics and the dielectric properties of each cable type. The total insertion loss (IL_{total}) is the sum of ca ble attenuation and the loss of both connectors.

Total IL Calculation: $IL_{total} = Atten_{cable} + IL_{conn1} + IL_{conn2}$

Cable attenuation(dB/100m)= $K1*\sqrt{F(MHz)} + K2*F(MHz)$; Connector attenuation(dB) = $0.03*\sqrt{F(GHz)}$

Power Handling(W) VS Frequency, @+40 °C, VSWR=1.0, Sea Level

Model	0.3 GHz	0.5 GHz	1 GHz	2 GHz	3 GHz	4 GHz	6 GHz	8 GHz	10 GHz	12.4 GHz	18 GHz	26.5 GHz	40 GHz
FS360Z	-	-	119	83	67	-	46	40	35	31	25	20	16
FS500Z	-	215	149	103	82	-	56	47	41	36	29	23	-
FS600Z	-	-	175	122	99	85	68	59	52	46	37	30	-
FS800Z	626	477	327	222	176	-	117	98	85	74	58	-	-

Connectors Options and VSWR

	FS360Z	FS500Z	FS600Z	FS800Z	Freq.(Max)	VSWR (Max)
1.85mm(V)	√				67GHz	1.30:1
2.4mm(2)	√				40GHz	1.30:1
2.92mm(K)	√	√			40GHz	1.30:1
SSMA(J)	√				40GHz	1.30:1
3.5mm(3)	√	√			33GHz	1.25:1
SMA(S)	√	√	√	√	26.5GHz	1.25:1
N(N)	√	√	√	√	18GHz	1.25:1

Note 1: Connector material, gender and other connector options may be available upon request. Please contact Fasnw ave to confirm availability and current stock. The connectors listed above represent standard options and may not inc lude the full range of Fasnwave connector offerings.

Attenuators

An RF attenuator is a critical component used to reduce the power level of a signal without significantly distorting its waveform. It acts as a "precision volume control" for microwave signals, essential for protecting sensitive equipment, matching impedance, and controlling signal levels in complex RF chains.

FASNWAVE INC. is a leading manufacturer of high-performance RF and microwave components. We provide a One-Stop Solution for all attenuation needs, offering a product line that rivals international Tier-1 brands in precision and reliability.

Key features:

- Complete Product Portfolio
- Ultra-Wide Frequency
- High Power Handling
- Fully Customizable

Applications:

- 5G/6G Communication Testing
- Radar & Electronic Warfare Systems
- Satcom(Ground Stations)
- Laboratory Precision Measurement

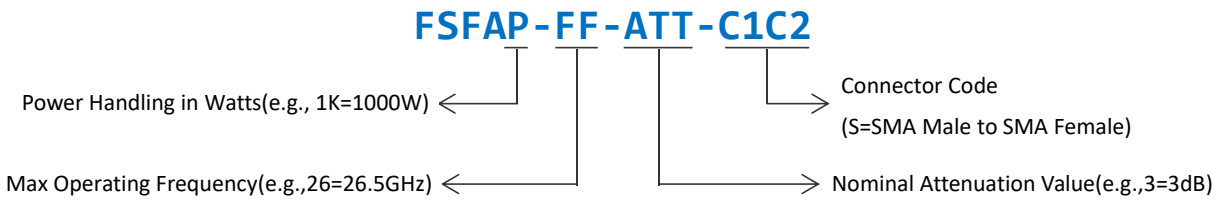
Product Range Overview

Category	Max Frequency	Key Feature
Fixed Attenuators	Up to 110GHz	High stability, wide power range (up to 500W)
Rotary Stepped Attenuators	Up to 40GHz	Precision manual increments
Continuously Variable Attenuators	Up to 18GHz	Seamless, gapless tuning
Programmable Attenuators	Up to 40GHz	High-speed automated switching
Digitally Controlled Attenuators	Up to 40GHz	Precise logic-level control

Fixed Attenuators

FASNWAVE provides a comprehensive line of 50 Ω fixed attenuators ranging from DC to 110GHz, with power handling up to 500W at 18GHz. Built to international standards, our products deliver high attenuation accuracy and low VSWR for critical 5G/6G, radar, and lab testing. We offer fully customizable attenuation values and connectors with no MOQ, providing a flexible, one-stop solution for any precision signal control requirement.

Model Number System:



For Example: FSFA100-18-20-N represent fixed attenuator, 18GHz, 20dB attenuation, N male to N female.

110GHz Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)			Connector	Dimension (mm)
				3	6	10		
FSFA1-110-XX-W	110	1	1.60	-1.0/+2.0	-1.0/+2.0	-1.0/+2.0	1.0mm	L=15.4

67GHz Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)				Connector	Dimension (mm)
				1~9	10	20	30		
FSFA2-67-XX-V	67	2	1.35	-1.0/+1.5		-1.2/+1.5	-1.5/+2.0	1.85mm	Φ9*18.5
FSFA5-67-XX-V	67	5	1.40	-1.0/+1.2		±1.2	±1.5	1.85mm	Φ31.8*17.8
FSFA10-67-XX-V	67	10	1.45	-	-1.0/+1.2	±1.2	±1.5	1.85mm	Φ40*25.2

50GHz Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)			Connector	Dimension (mm)
				1~10	20	30		
FSFA2-50-XX-2	50	2	1.30	±1.0	-1.0/+1.2	-1.0/+1.2	2.4mm	Φ9*19.7
FSFA5-50-XX-2	50	5	**1.30**	-1.0/+1.2	-1.0/+1.2	-1.0/+1.2	2.4mm	Φ31.8*17.8
FSFA10-50-XX-2	50	10	1.40	-1.5/+2.0	-1.5/+2.0	-1.5/+2.0	2.4mm	Φ40*25.2

40GHz Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)					Connector	Dimension (mm)
				1~10	20	30	40	50		
FSFA2-40-XX-K	40	2	1.25	-0.7/+0.8	-0.8/+1.0		-	-	2.92mm	Φ9*23.2
FSFA5-40-XX-K	40	5	1.25	0.7/+1.0			-	-	2.92mm	Φ15.8*39.6
FSFA10-40-XX-K	40	10	1.25	0.7/+1.0			-	-	2.92mm	Φ30.8*39.6
FSFA20-40-XX-K	40	20	1.30	±1.5(3~10)	±1.5	±1.5	±1.5	-	2.92mm	Φ44*55.6
FSFA30-40-XX-K	40	30	1.35	-	-1.5/+2.0			-	2.92mm	-
FSFA50-40-XX-K	40	50	1.35	-	±3.0	±3.0	±3.0	-	2.92mm	Φ54*110.6
FSFA100-40-XX-K	40	100	1.40	-	±4.0	±4.0	±4.0	±4.0	2.92mm	180*90*160

26.5GHz Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)				Connector	Dimension (mm)
				1~10	20	30	40		
FSFA2-26.5-XX-S	26.5	2	1.30	±0.7	±0.7	±0.8	±0.9	SMA	Φ9*27/30
FSFA5-26.5-XX-S	26.5	5	1.25	-0.6/+0.8	-0.6/+0.8	-0.8/+1.0	-	SMA	Φ15.8*38.7
FSFA20-26.5-XX-S	26.5	10	1.25	-0.6/+0.8	-0.6/+0.8	-0.8/+1.0	-	SMA	Φ31.8*38.7
FSFA20-26.5-XX-S	26.5	20	1.30	±1.5(10)	±1.5	±1.5	-	SMA	Φ44*54.7
FSFA30-26.5-XX-S	26.5	30	1.30	-	±1.5	±1.5	±1.5	SMA	Φ54*62.7
FSFA50-26.5-XX-S	26.5	50	1.30		±2.0	±2.0	±2.0	SMA	Φ54*109.7

18GHz, SMA Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)					Dimension (mm)
				1~10	11~20	21~30	31~40	41~60	
FSFA2-18-XX-S	18	2	1.30	±0.5	±0.7	±1.0	±1.5	±1.5	Φ9*24~30
FSFA5-18-XX-S	18	5	1.30	±0.6	±0.8	±1.0	-	-	Φ19*27
FSFA10-18-XX-S	18	10	1.35	±0.6	±0.8	±1.0	±1.2	-	Φ15.8*47.5
FSFA20-18-XX-S	18	20	1.35	±0.6	±0.8	±1.0	±1.2	-	Φ38*47.5
FSFA30-18-XX-S	18	30	1.35	±0.6	±0.8	±1.0	±1.2	±1.3(50~60)	Φ38*110[1]
FSFA50-18-XX-S	18	50	1.45	±0.8	±0.9(20)	±1.1(30)	±1.2~1.3(40~50)		Φ64*110
FSFA100-18-XX-S	18	100	1.45	±1.5(6-10)	±1.5(20)	±1.3(30)	±1.3(40)	±1.4(50~70)	Φ64*161

1. Smaller dimensions are available.

18GHz, N-Type Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)					Dimension (mm)
				1~10	11~20	21~30	31~40	41~60	
FSFA2-18-XX-N	18	2	1.35	±0.7	±0.8(20)	±1.0(30)	±1.2(40)	±1.3(50,60)	Φ16.5*45
FSFA5-18-XX-N	18	5	1.35	±0.7	±0.8(20)	±1.0(30)	±1.2(40)	±1.3(50,60)	Φ16.5*58
FSFA10-18-XX-N	18	10	1.45	±0.6	±0.8	±1.0	±1.2	±1.3~1.5	Φ30*58
FSFA20-18-XX-N	18	20	1.45	±0.6	±0.8	±1.0	±1.2	±1.3(41~50)	Φ38*84.5
FSFA30-18-XX-N	18	30	1.45	±0.6	±0.9(20)	±1.0(30)	±1.2(40)	±1.3(50~60)	Φ38*105
FSFA50-18-XX-N	18	50	1.45	±0.8	±0.9(20)	±1.0(30)	±1.2~1.3(40~50)		Φ64*105[1]
FSFA100-18-XX-N	18	100	1.45	±1.5(6-10)	±1.5(20)	±1.3(30)	±1.3(40)	±1.4(50~60)	Φ64*161
FSFA200-18-XX-N	18	200	1.45	±3.5(10)	±2.5(20)	±1.5(30)	±1.3(40)	±1.4(50~60)	258*110*120
FSFA250-18-XX-N	18	250	1.45	±3.0(10)	-	±1.5(30)	±1.3(40)	±1.4(50~60)	309*110*120
FSFA300-18-XX-N	18	300	1.45	±4.0(10)	±3.0(20)	±1.5(30)	±1.3(40,50)	±1.4(60)	360*110*120
FSFA400-18-XX-N	18	400	1.45	-	±3.0(20)	±1.5(30)	±1.3(40)	±1.4(50~60)	462*110*120
FSFA500-18-XX-N[2]	18	500	1.45	±3.0(10)	±3.0(20)	±1.5(30)	±1.5(40)	±1.5(50，60)	435*130*220

1. Block heatsink option is available.
2. The listed parameters are measured with a cooling fan. A fanless option is also available.

12.4GHz, SMA Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)					Dimension (mm)
				1~10	11~20	21~30	31~40	41~60	
FSFA2-12.4-XX-S	12.4	2	1.25	±0.5	±0.7	±0.9	±1.0	±1.0	Φ9*24~30
FSFA5-12.4-XX-S	12.4	5	1.25	±0.6	±0.8	±0.9	-	-	Φ19*27
FSFA10-12.4-XX-S	12.4	10	1.25	±0.6	±0.7	±0.8	±0.9	-	Φ15.8*47.5

FSFA20-12.4-XX-S	12.4	20	1.25	±0.6	±0.7	±0.8	±0.9	-	Φ38*47.5
FSFA30-12.4-XX-S	12.4	30	1.35	±0.6	±0.7	±0.8	±1.0	±1.0(50~60)	Φ38*110[1]
FSFA50-12.4-XX-S	12.4	50	1.35	±0.6	±0.7(20)	±0.8(30)	±1.0~1.1(40~50)		Φ64*110
FSFA100-12.4-XX-S	12.4	100	1.35	±1.2(6-10)	±0.9(20)	±1.0(30)	±1.0(40)	±1.1(50~70)	Φ64*161

12.4GHz, N-Type Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)					Dimension (mm)
				1~10	11~20	21~30	31~40	41~60	
FSFA2-12.4-XX-N	12.4	2	1.30	±0.6	±0.7(20)	±0.8(30)	±0.9(40)	±1.1(50,60)	Φ16.5*45
FSFA5-12.4-XX-N	12.4	5	1.30	±0.6	±0.7(20)	±0.8(30)	±0.9(40)	±1.0(50,60)	Φ16.5*58
FSFA10-12.4-XX-N	12.4	10	1.35	±0.6	±0.7	±0.8	±0.9	±1.0~1.2	Φ30*58
FSFA20-12.4-XX-N	12.4	20	1.35	±0.6	±0.7	±0.8	±0.9	±1.1(41~50)	Φ38*84.5
FSFA30-12.4-XX-N	12.4	30	1.35	±0.6	±0.7(20)	±0.8(30)	±1.0(40)	±1.0(50~60)	Φ38*105
FSFA50-12.4-XX-N	12.4	50	1.35	±0.6	±0.7(20)	±0.8(30)	±1.0(40~50)		Φ64*105[1]
FSFA100-12.4-XX-N	12.4	100	1.35	±1.2(6-10)	±0.9(20)	±1.0(30)	±1.0(40)	±1.1(50~60)	Φ64*161
FSFA200-12.4-XX-N	12.4	200	1.35	±1.5(10)	±0.9(20)	±1.0(30)	±1.1(40)	±1.1(50~60)	258*110*120
FSFA250-12.4-XX-N	12.4	250	1.35	±2.5(10)	±0.9(20)	±1.0(30)	±1.1(40)	±1.1(50~60)	309*110*120
FSFA300-12.4-XX-N	12.4	300	1.35	±3.0(10)	±0.9(20)	±1.0(30)	±1.1(40,50)	±1.1(60)	360*110*120
FSFA400-12.4-XX-N	12.4	400	1.35	-	±0.9(20)	±1.0(30)	±1.1(40)	±1.1(50~60)	462*110*120
FSFA500-12.4-XX-N[2]	12.4	500	1.35	±2.5(10)	±0.9(20)	±1.0(30)	±1.1(40)	±1.1(50, 60)	435*130*220

1. Block heatsink option is available.
2. The listed parameters are measured with a cooling fan. A fanless option is also available.

8GHz, SMA Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)					Dimension (mm)
				1~10	11~20	21~30	31~40	41~60	
FSFA2-8-XX-S	8	2	1.20	±0.5	±0.6	±0.8	±0.8	±0.9	Φ9*24~30
FSFA5-8-XX-S	8	5	1.25	±0.5	±0.6	±0.8	-	-	Φ19*27
FSFA10-8-XX-S	8	10	1.20	±0.5	±0.6	±0.8	±0.8	-	Φ15.8*47.5
FSFA20-8-XX-S	8	20	1.20	±0.5	±0.6	±0.8	±0.8	-	Φ38*47.5
FSFA30-8-XX-S	8	30	1.25	±0.5	±0.6	±0.8	±0.8	±0.8(50~60)	Φ38*110[1]
FSFA50-8-XX-S	8	50	1.25	±0.5	±0.6(20)	±0.8(30)	±0.8(40~50)		Φ64*110
FSFA100-8-XX-S	8	100	1.25	±0.8(6-10)	±0.8(20)	±0.9(30)	±0.9(40)	±1.0(50~70)	Φ64*161
FSFA100-8-XX-S-1	8	100	1.30	±1.0(10)	±1.1(20)	±1.3(30)	-	-	Φ38*185

8GHz, N-Type Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)					Dimension (mm)
				1~10	11~20	21~30	31~40	41~60	
FSFA2-8-XX-N	8	2	1.25	±0.5	±0.6(20)	±0.8(30)	±0.8(40)	±0.9(50,60)	Φ16.5*45
FSFA5-8-XX-N	8	5	1.20	±0.5	±0.6(20)	±0.8(30)	±0.8(40)	±0.9(50,60)	Φ16.5*58
FSFA10-8-XX-N	8	10	1.25	±0.5	±0.6	±0.8	±0.8	±0.8~1.0	Φ30*58
FSFA20-8-XX-N	8	20	1.25	±0.5	±0.6	±0.8	±0.8	±0.8(41~50)	Φ38*84.5
FSFA30-8-XX-N	8	30	1.25	±0.5	±0.6(20)	±0.8(30)	±0.8(40)	±0.8(50~60)	Φ38*105
FSFA50-8-XX-N	8	50	1.25	±0.5	±0.6(20)	±0.8(30)	±0.8(40~50)		Φ64*105[1]
FSFA100-8-XX-N	8	100	1.25	±0.8(6-10)	±0.8(20)	±0.9(30)	±0.9(40)	±1.0(50~60)	Φ64*161
FSFA100-8-XX-N-1	8	100	1.30	±1.0(10)	±1.1(20)	±1.3(30)	-	-	Φ38*185

FSFA200-8-XX-N	8	200	1.25	±1.5(10)	±0.8(20)	±0.9(30)	±0.9(40)	±0.9(50~60)	258*110*120
FSFA250-8-XX-N	8	250	1.25	±0.8(10)	±0.8(20)	±0.9(30)	±0.9(40)	±0.9(50~60)	309*110*120
FSFA300-8-XX-N	8	300	1.25	±0.8(10)	±0.8(20)	±0.9(30)	±0.9(40,50)	±0.9(60)	360*110*120
FSFA400-8-XX-N	8	400	1.25	-	±0.8(20)	±0.9(30)	±0.9(40)	±0.9(50~60)	462*110*120
FSFA500-8-XX-N[2]	8	500	1.25	±0.8(10)	±0.8(20)	±0.9(30)	±0.9(40)	±0.9(50,60)	435*130*220

1. Block heatsink option is available.
2. The listed parameters are measured with a cooling fan. A fanless option is also available.

4GHz, SMA Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)					Dimension (mm)
				1~10	11~20	21~30	31~40	41~60	
FSFA2-4-XX-S	4	2	1.15	±0.5	±0.5	±0.7	±0.7	±0.8	Φ9*24~30
FSFA5-4-XX-S	4	5	1.20	±0.4	±0.5	±0.7	-	-	Φ19*27
FSFA10-4-XX-S	4	10	1.15	±0.4	±0.5	±0.6	±0.7	-	Φ15.4*47.5
FSFA20-4-XX-S	4	20	1.15	±0.4	±0.5	±0.6	±0.7	-	Φ34*47.5
FSFA30-4-XX-S	4	30	1.20	±0.4	±0.5	±0.7	±0.7	±0.7(50~60)	Φ34*110[1]
FSFA50-4-XX-S	4	50	1.20	±0.4	±0.5(20)	±0.7(30)	±0.7(40~50)		Φ64*110
FSFA100-4-XX-S	4	100	1.20	±0.7(6-10)	±0.7(20)	±0.8(30)	±0.8(40)	±0.9~1.0(50~70)	Φ64*161

4GHz, N-Type Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)					Dimension (mm)
				1~10	11~20	21~30	31~40	41~60	
FSFA2-4-XX-N	4	2	1.15	±0.4	±0.5(20)	±0.6(30)	±0.7(40)	±0.8(50,60)	Φ16.5*45
FSFA5-4-XX-N	4	5	1.15	±0.4	±0.5(20)	±0.6(30)	±0.7(40)	±0.8(50,60)	Φ16.5*54
FSFA10-4-XX-N	4	10	1.20	±0.4	±0.5	±0.6	±0.7	±0.8~0.9	Φ30*54
FSFA20-4-XX-N	4	20	1.20	±0.4	±0.5	±0.6	±0.7	±0.7(41~50)	Φ34*44.5
FSFA30-4-XX-N	4	30	1.20	±0.4	±0.5(20)	±0.7(30)	±0.7(40)	±0.7(50~60)	Φ34*105
FSFA50-4-XX-N	4	50	1.20	±0.4	±0.5(20)	±0.7(30)	±0.7(40~50)		Φ64*105[1]
FSFA100-4-XX-N	4	100	1.20	±0.7(6-10)	±0.7(20)	±0.8(30)	±0.8(40)	±1.0(50~60)	Φ64*161
FSFA200-4-XX-N	4	200	1.20	±0.7(10)	±0.7(20)	±0.8(30)	±0.9(40)	±0.9(50~60)	254*110*120
FSFA250-4-XX-N	4	250	1.20	±0.7(10)	±0.7(20)	±0.8(30)	±0.9(40)	±0.9(50~60)	309*110*120
FSFA300-4-XX-N	4	300	1.20	±0.7(10)	±0.7(20)	±0.8(30)	±0.9(40,50)	±0.9(60)	360*110*120
FSFA400-4-XX-N	4	400	1.20	-	±0.7(20)	±0.8(30)	±0.9(40)	±0.9(50~60)	462*110*120
FSFA500-4-XX-N[2]	4	500	1.20	±0.7(10)	±0.7(20)	±0.8(30)	±0.9(40)	±0.9(50，60)	435*130*220
FSFA1K-4-XX-N	4	400	1.20	-	±0.7(20)	±0.8(30)	±0.9(40)	±0.9(50~60)	462*110*120

1. Block heatsink option is available.
2. The listed parameters are measured with a cooling fan. A fanless option is also available.

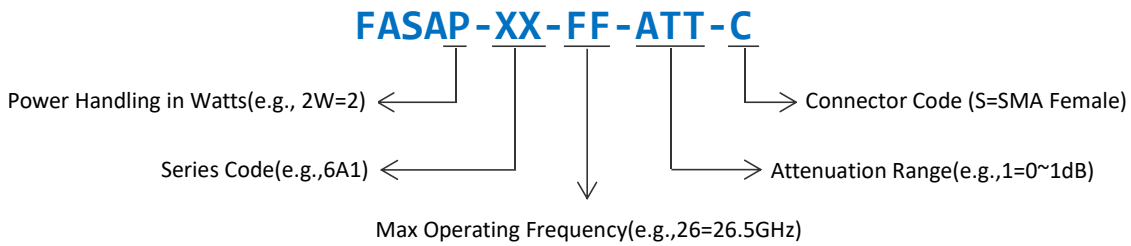
High Power Series

Model Number	Freq. (GHz)	Power (W)	VSWR (Max.)	Attenuation(dB) & Accuracy (dB)				Connector	Dimension (mm)
				30	40	50	60		
FSFA1K-6-XX-N	6	1000	1.45	±5.0	-1/+8	±4.0	±4.0	N	486*220*508
FSFA2K-3-XX-L29	3	2000	1.40	-	±2.0	±2.0	-	L29,N	658*170*410

Rotary Stepped Attenuators

Fasnwave offers 50 Ω rotary stepped attenuators designed for precise and reliable RF and micro wave signal level control. Covering frequencies up to 40 GHz, the series is available in single-rot or, dual-rotor, and three-rotor configurations, offering attenuation ranges up to 101 dB with step sizes down to 0.1 dB. These attenuators deliver high attenuation accuracy, excellent repeatabilit y, and long-term stability, making them ideal for RF/microwave test benches and panel-mounted installations.

Model Number System:

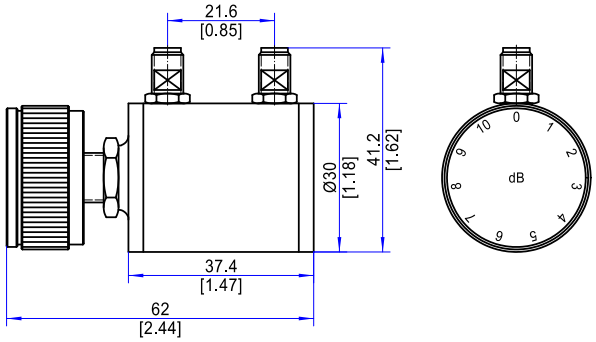


For Example: FSSA2-6-1-N represent rotary stepped attenuator, DC~6GHz, 0~1dB Attenuation, N female.

FSSAXX-6A1

Freq. (GHz)	Attenuation/Step	Accuracy(dB)	VSWR (Max.)	IL (dB.Max.)	Power(W)	Connector
DC~2.5	0~1dB in 0.1dB Steps	±0.2	1.25	0.4	2,10	SMA, N
DC~3			1.30	0.5	2,10	SMA, N
DC~4.3		±0.3	1.35	0.75	2,10	SMA, N
DC~6		±0.4	1.40	1.0	2,10	SMA, N
DC~2.5	0~10dB in 1dB Steps	±0.4	1.25	0.4	2,10	SMA, N
DC~3		±0.5	1.30	0.5	2,10	SMA, N
DC~4.3			1.35	0.75	2,10	SMA, N
DC~6			1.40	1.0	2,10	SMA, N
DC~2.5	0~90dB in 10dB Steps	±0.5 (0~39dB)	1.25	0.4	2,10	SMA, N
DC~3		±0.8 or 3%/3.5% (40~90dB)	1.30	0.5	2,10	SMA, N
DC~4.3	0~60dB in 10dB Steps	±0.5 (0~39dB)	1.35	0.75	2,10	SMA, N
DC~6		±0.8 or 3% (40~90dB)	1.40	1.0	2,10	SMA, N
Peak Power		100W (5μs pulse width, 2% duty cycle)				
Working Temperature		-20°C~+85°C				

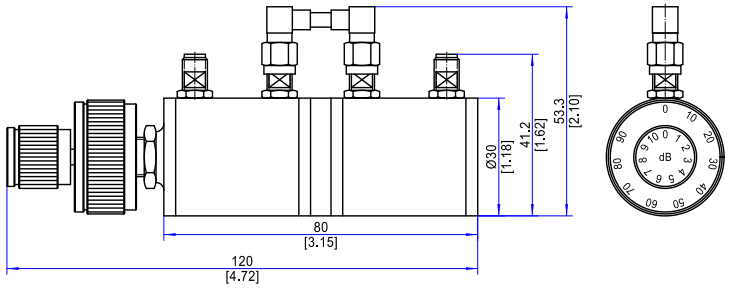
Outline Drawing (Units: mm/[inch], Tolerance: ±2%)



FSSAXX-6B2

Freq. (GHz)	Attenuation/Step	Accuracy(dB)	VSWR (Max.)		IL (dB.Max.)	Power(W)	Connector
			SMA	N			
DC~2.5	0~11dB in 0.1dB Steps	±0.2 (1dB), ±0.4 (2~10dB)	1.30	1.45	1.0	2,10	SMA, N
DC~3		±0.3 (0~0.9dB) ±0.5 (1~11dB)	1.35	1.45	1.2	2,10	SMA, N
DC~4.3			1.40	1.55	1.5	2,10	SMA, N
DC~6			1.55	1.60	1.8	2,10	SMA, N
DC~2.5	0~50dB in 1dB Steps	±0.5 (0~10dB) ±0.8 or 3% (11~50dB)	1.30	1.35	1.0	2,10	SMA, N
DC~2.5	0~70dB in 1dB Steps	±0.5 (0~10dB) ±0.8 or 3% (11~69dB) ±3.5% (70dB)	1.30	1.45	1.0	2,10	SMA, N
DC~3			1.35	1.45	1.2	2,10	SMA, N
DC~4.3			1.40	1.55	1.5	2,10	SMA, N
DC~6			1.55	1.60	1.8	2,10	SMA, N
DC~2.5	0~100dB in 1dB Steps	±0.5 (0~10dB) ±0.8 or 3% (11~69dB) ±3.5% (70~100dB)	1.30	1.45	1.0	2,10	SMA, N
DC~3			1.35	1.45	1.2	2,10	SMA, N
Peak Power		00W (5μs pulse width, 2% duty cycle)					
Working Temperature		-20°C~+85°C					

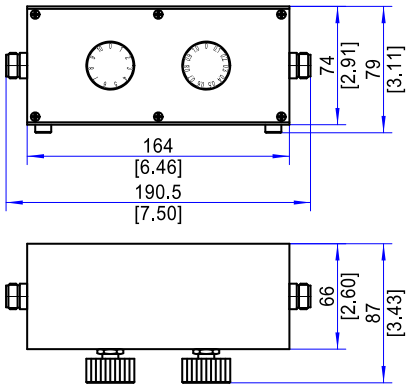
Outline Drawing (Units: mm/[inch], Tolerance: ±2%)



FSSAXX-6C2

Freq. (GHz)	Attenuation/Step	Accuracy(dB)	VSWR (Max.)	IL (dB.Max.)	Power(W)	Connector
DC~2.5	0~11dB in 0.1dB Steps	±0.3 (0~0.9dB) ±0.5 (1~11dB)	1.40	1.2	2,10	N
DC~3			1.45	1.2	2,10	N
DC~4.3			1.50	1.5	2,10	N
DC~6			1.65	1.8	2,10	N
DC~2.5	0~70dB in 1dB Steps	±0.5 (0~10dB) ±0.8 or 3% (11~69dB) ±3.5% (70dB)	1.40	1.2	2,10	N
DC~3			1.45	1.2	2,10	N
DC~4.3			1.50	1.5	2,10	N
DC~6			1.65	1.8	2,10	N
DC~2.5	0~100dB in 1dB Steps	±0.5 (0~10dB) ±0.8 or 3% (11~69dB) ±3.5% (70~100dB)	1.40	1.2	2,10	N
DC~3			1.45	1.2	2,10	N
Peak Power		100W (5μs pulse width, 2% duty cycle)				
Working Temperature		-20°C~+85°C				

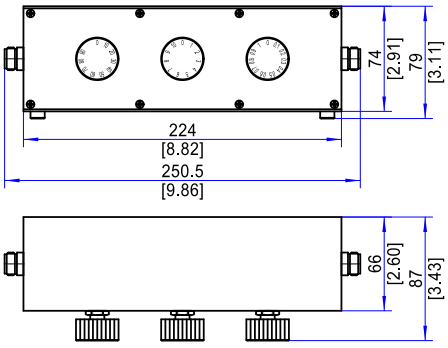
Outline Drawing (Units: mm/[inch], Tolerance: ± 2%)



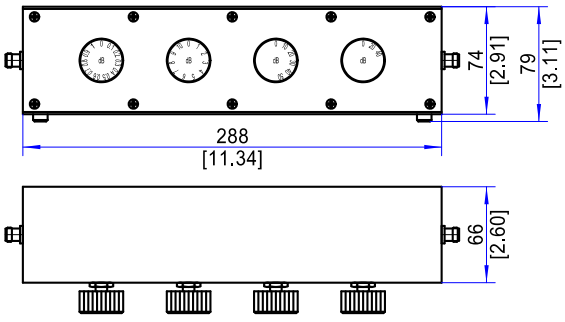
FSSAXX-6D3

Freq. (GHz)	Attenuation/Step	Accuracy(dB)	VSWR (Max.)	IL (dB.Max.)	Power(W)	Connector
DC~2.5	0~71dB in 0.1dB Steps	±0.3 (0~0.9dB)	1.50	1.5	2,10	N
DC~3		±0.5 (1~10dB)	1.60	1.7	2,10	N
DC~4.3		±0.8 or 3% (10.1~69.9dB)	1.70	2.0	2,10	N
DC~6		±3.5% (70~71dB)	1.75	2.5	2,10	N
DC~0.03[1]	0~101dB in 0.1dB Steps	±0.09dB(0~15dB) ±0.5%+0.02dB(15.1~101dB)	1.1	0.8	2,10	N
DC~2.5		±0.3 (0~0.9dB)	1.50	1.5	2,10	N
DC~3		±0.5 (1~10dB) ±0.8 or 3% (10.1~69.9dB) ±3.5% (70~101dB)	1.60	1.7	2,10	N
Peak Power		100W (5μs pulse width, 2% duty cycle)				
Working Temperature		-20°C~+85°C				

Outline Drawing (Units: mm/[inch], Tolerance: ± 2%)



Outline A



Outline B: DC~0.03GHz

Note 1:

The DC–0.03 GHz version is a precision type, available with an average power rating of 2 W only.

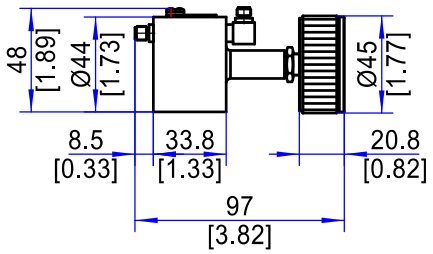
Connector options include N, BNC, and SMA.

Due to mechanical wear during rotation, attenuation accuracy may gradually degrade. It is recommended that the unit be returned to the factory for maintenance, recalibration, and replacement of worn parts after approximately 60,000 knob rotations.

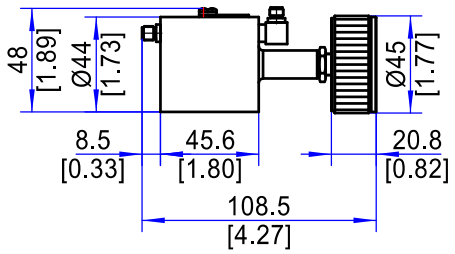
FSSAXX-26A1

Freq. (GHz)	Attenuation/Step	Accuracy(dB)	VSWR (Max.)	IL (dB.Max.)	Power(W)	Connector
DC~8	0~9dB in 1dB Steps	±0.6	1.40	0.8	2,10	SMA, 3.5mm
DC~12.4		±0.8	1.50	1.0		SMA, 3.5mm
DC~18		±1.0	1.60	1.2		SMA, 3.5mm
DC~26.5		±1.0	1.75	1.8		SMA, 3.5mm
DC~8	0~90dB in 10dB Steps	±1.5 (10~60dB) ±2.5 or 3.5% (70~90dB)	1.40	1.0	2,10	SMA, 3.5mm
DC~12.4			1.50	1.2		SMA, 3.5mm
DC~18			1.60	1.5	2,10	SMA, 3.5mm
DC~18	0~70dB in 10dB Steps	±1.5 or 4%	1.65	1.0	25	SMA, 3.5mm
DC~26.5	0~60dB in 10dB Steps		1.75 1.80	1.8	10,25	SMA, 3.5mm
Peak Power		200W (5μs pulse width, 2% duty cycle)				
Working Temperature		0°C~+54°C				

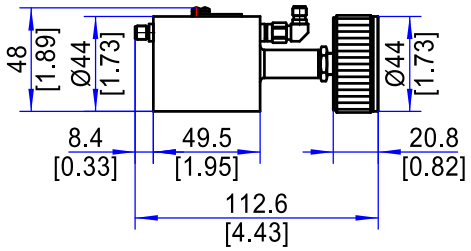
Outline Drawing(Units: mm/[inch], Tolerance: ± 2%)



Outline A(0~9dB/2W)



Outline B(0~90dB/2W,10W)

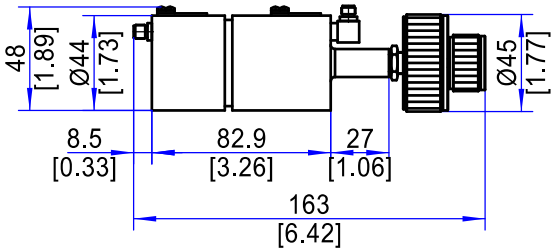


Outline C(0~90dB/25W)

FSSAXX-26B2

Freq. (GHz)	Attenuation/Step	Accuracy(dB)	VSWR (Max.)	IL (dB.Max.)	Power(W)	Connector
DC~8	0~69dB in 1dB Steps	±0.5dB (0~9dB) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB)	1.50	1.0	2,5	SMA
DC~12.4		±0.8dB (0~9dB) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB)	1.60	1.25	2,5	SMA
DC~18			1.75	1.5	2,5	SMA
DC~26.5		±1.5dB (1~9dB) ±1.75dB(10~19dB) ±2.0dB(20~49dB) ±2.5dB(50~69dB)	2.0	2.0	2,5	3.5mm
DC~8	0~99dB in 1dB Steps	±0.5dB (0~9dB) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB) ±2.5dB or 3.5%(70~99dB)	1.50	1.0	2,5	SMA
DC~12.4		±0.8dB (0~9dB) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB) ±2.5dB or 3.5%(70~99dB)	1.60	1.25	2,5	SMA
DC~18			1.75	1.5	2,10	SMA
Peak Power		200W (5μs pulse width, 2% duty cycle)				
Working Temperature		0°C~+54°C				

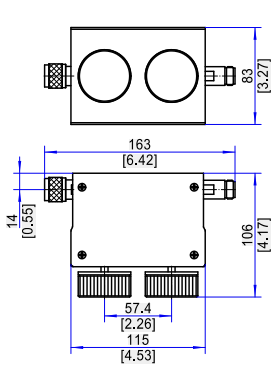
Outline Drawing(Units: mm/[inch], Tolerance: ±2%)



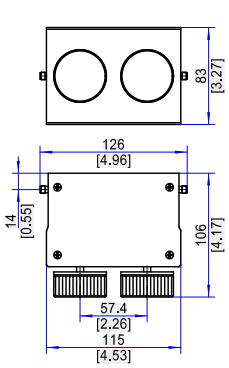
FSSAXX-26C2

Freq. (GHz)	Attenuation/Step	Accuracy(dB)	VSWR (Max.)	IL (dB.Max.)	Power(W)	Connector
DC~8	0~69dB in 1dB Steps	±0.5dB(1~9dB DC~8G) ±0.8dB(1~9dB >8G) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB)	1.50	1.25	2,10	SMA, N
DC~12.4			1.50	1.50	2,10	SMA, N
DC~18			1.75	1.50	2,10	SMA, N
DC~26.5		±1.5dB (0~9dB) ±1.75dB(10~19dB) ±2.0dB(20~49dB) ±2.5dB(50~69dB)	1.85	2.2	2,10	3.5mm
DC~8	0~99dB in 1dB Steps	±0.5dB (0~9dB,DC~8G) ±0.8dB (0~9dB,DC>8G) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB) ±2.5dB or 3.5%(70-99dB)	1.50	1.25	2,10	SMA, N
DC~12.4			1.50(2W) 1.60(10W)	1.50	2,10	SMA, N
DC~18			1.75	1.50(2W) 1.75(10W)	2,10	SMA, N
Peak Power		200W (5μs pulse width, 2% duty cycle)				
Working Temperature		0°C~+54°C				

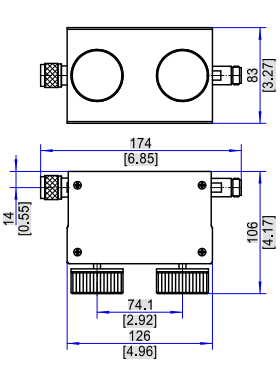
Outline Drawing(Units: mm/[inch], Tolerance: ±2%)



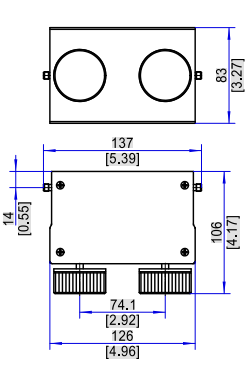
Outline A: 2W,N



Outline B: 2W,SMA,3.5mm



Outline C: 10W, N

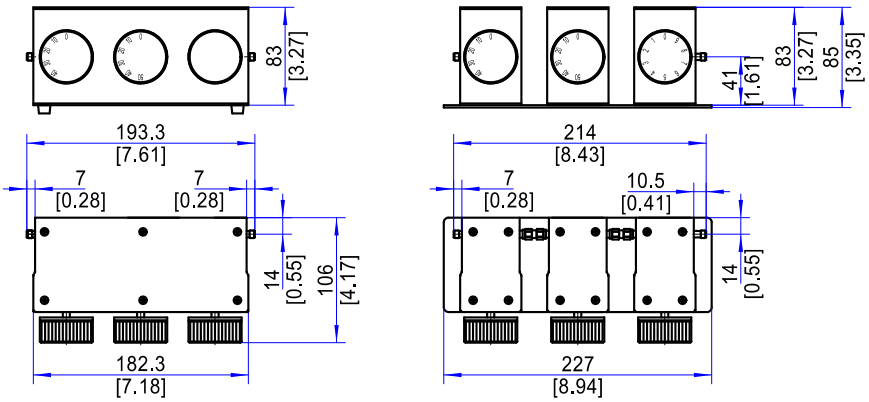


Outline D: 10W,SMA,3.5mm

FSSAXX-26D3

Freq. (GHz)	Attenuation/Step	Accuracy(dB)	VSWR (Max.)	IL (dB.Max.)	Power(W)	Connector
DC~8	0~99.9dB in 0.1dB Steps	±0.5(0~0.9dB)	1.50	1.3	2, 5	SMA, N
DC~12.4		±0.8(1~9.9dB/0.1~8GHz)	1.65	1.6	2, 5	SMA, N
DC~18		±1.0(1~9.9dB/8~18GHz) ±1.5(10~19.9dB) ±2.0(20~49.9dB) ±2.5(50~69.9dB) ±3.0 or 3.5%(70~99.9dB)	2.0	1.7	2, 5	SMA, N
DC~12.4	0~109dB, 0~119dB, 0~129dB in 1dB Steps	±0.8dB(1~9dB)	1.7	1.6	2, 5	SMA, N
DC~18		±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB) ±2.5dB or 3.5%(70~99dB) ±4%(>99dB)	2.0	1.8	2, 5	SMA, N
DC~26.5	0~99dB, 0~109dB in 1dB Steps	±1.5(0~9dB)	2.0	3.0	5	3.5mm
DC~28		±2.5 or 5%(10~99dB)				
Peak Power		100W (5μs pulse width, 2% duty cycle)				
Working Temperature		-20°C~+85°C				

Outline Drawing(Units: mm/[inch], Tolerance: ±2%)

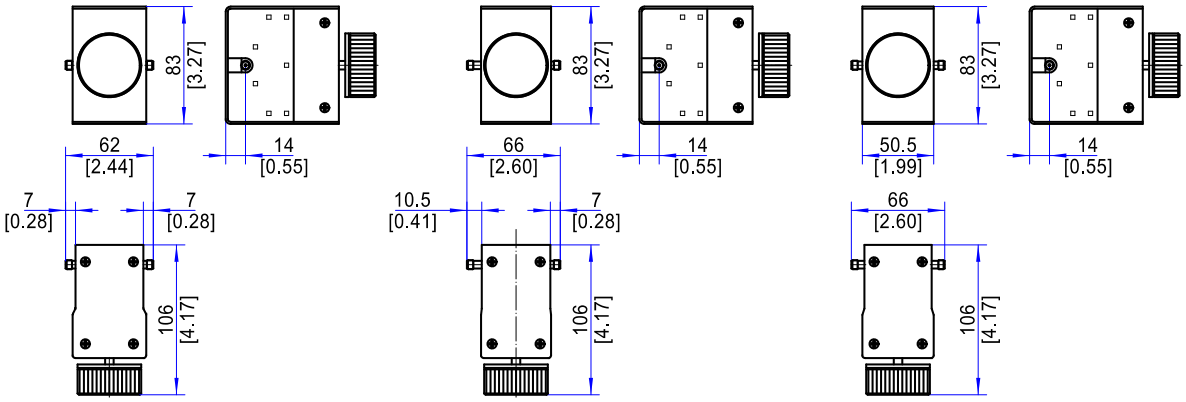


Outline A: SMA or N connectors Outline B: 3.5mm connector (26.5/28GHz)

FSSAXX-40A1

Freq. (GHz)	Attenuation/Step	Accuracy(dB)	VSWR (Max.)	IL (dB.Max.)	Power(W)	Connector
DC~28	0~9dB in 1dB Steps	±1.5	1.75	1.8	10	3.5mm
DC~32		±1.2	1.9	2.0	2	2.92mm
DC~40		±1.5	2.0	2.5	2	2.92mm
DC~26.5	0~60dB in 10dB Steps	±1.5 or 4%	1.75	1.8	2	3.5mm
DC~18	0~70dB in 10dB Steps	±1.5 or 4%	1.60	1.0	2,10	SMA
DC~26.5		±1.5 or 4%	1.75	1.8	25	3.5mm
DC~28		±2.0 or 5%	1.75	1.8		3.5mm
Peak Power		200W (5μs pulse width, 2% duty cycle)				
Working Temperature		0°C~+54°C				

Outline Drawing(Units: mm/[inch], Tolerance: ±2%)



Outline A: 2W, 0~60dB,0~70dB
10W, 0~9dB,0~70dB

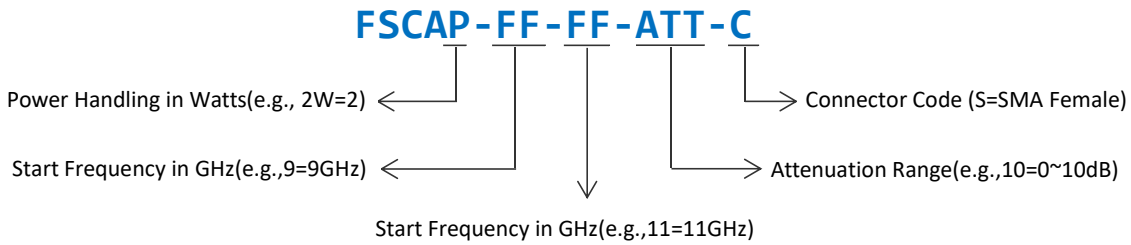
Outline B: 2W, 0~9dB

Outline C: 25W, 0~70dB

Continuously Variable Attenuators

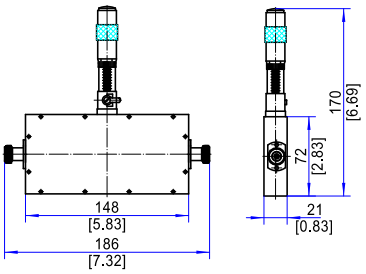
Fasnwave 50 Ω continuously variable attenuators provide broadband, high-power RF signal control up to 18 GHz, with power handling up to 300 W. Designed for smooth, continuous attenuation adjustment, the series offers multiple attenuation ranges, low VSWR, and excellent long-term stability, making it ideal for demanding RF and microwave test and system applications.

Model Number System:



For Example: FSCA1-0-2.5-10-N represent continuously variable attenuator, DC-2.5GHz, 0~10dB attenuation, N female

Model	Frequency (GHz)	Attenuation Range(dB)	Power (W)	VSWR (Max.)	IL. (dB.Max.)	Connector	Dimension (mm)
FSCA1-0-2.5-10-X	DC~2.5	0~10	1	-	-	SMA,N	SMA: 41*20*38
FSCA1-0-2.5-16-X		0~16	1	-	-	SMA,N	N: 47.5*20*42
FSCA5-2-4-8-S-XX	2~4	0~8	5	≤1.50	≤0.5	SMA	Standard: 73.5*69.7*14.3 With Knob: 87.6*69.7*17.8 With Dial: 87.6*69.7*23.4
FSCA5-4-8-10-S-XX	4~8	0~10	5			SMA	
FSCA5-4-8-20-S-XX		0~20	5			SMA	
FSCA5-7-10-10-S-XX	7~10	0~10	5			SMA	
FSCA5-7-10-20-S-XX		0~20	5			SMA	
FSCA5-7-10-30-S-XX		0~30	5			SMA	
FSCA5-7-10-40-S-XX		0~40	5			SMA	
FSCA5-8-12.4-10-S-XX	8~12.4	0~10	5	≤1.60	≤0.75	SMA	
FSCA5-8-12.4-20-S-XX		0~20	5			SMA	
FSCA5-8-12.4-30-S-XX		0~30	5			SMA	
FSCA5-8-12.4-40-S-XX		0~40	5			SMA	
FSCA5-12.4-18-10-S-XX	12.4~18	0~10	5		≤0.75	SMA	
FSCA5-12.4-18-20-S-XX		0~20	5			SMA	
FSCA5-12.4-18-30-S-XX		0~30	5			SMA	
FSCA5-12.4-18-40-S-XX		0~40	5			SMA	



High Power Version

Model	Freq. (GHz)	Bandwidth (MHz)	Attenuation Range(dB)	Accuracy (dB)	Power (W)	Connector	Dimension (mm)
FSCA50-X-X-10-N	0.9~4	100	0~10	±0.5	50	N	120*96.5*75
FSCA50-X-X-10-N		200		±0.75			
FSCA50-X-X-10-N	4~5	100	0~10	±0.5		N	
FSCA50-X-X-10-N		200		±0.75			
FSCA50-X-10-N		Spot		N/A			
FSCA50-X-X-10-N	9~11	100	0~10	±0.5		N	
FSCA50-X-X-10-N		200		±0.75			
FSCA50-X-10-N		Spot		N/A			
FSCA100-X-X-10-N	0.9~4	100	0~10	±0.5	100	N	189*102* 75
FSCA100-X-X-10-N		200		±0.75			
FSCA100-X-X-20-N		100	0~20	±0.5			
FSCA100-X-X-20-N		200		±0.75			
FSCA100-X-X-10-N	4~5	100	0~10	±0.5		N	
FSCA100-X-X-10-N		200		±0.75			
FSCA100-X-10-N		Spot		N/A			
FSCA100-X-X-15-N		100	0~15	±0.5			
FSCA100-X-X-15-N		200		±0.75			
FSCA100-X-20-N		Spot	0~20	N/A			
FSCA100-X-30-N		Spot	0~30	N/A			
FSCA100-X-X-10-N	9~11	100	0~10	±0.5		N	
FSCA100-X-X-10-N		200		±0.75			
FSCA100-X-10-N		Spot		N/A			
FSCA100-X-20-N		Spot	0~20	N/A			
FSCA100-X-30-N		Spot	0~30	N/A			
FSCA300-X-X-10-N	0.9~4	100	0~10	±0.5	300	N	259*102* 75
FSCA300-X-X-10-N		200		±0.75			
FSCA300-X-X-20-N		100	0~20	±0.5			
FSCA300-X-X-20-N		200		±0.75			
FSCA300-X-X-10-N	4~5	100	0~10	±0.5		N	
FSCA300-X-X-10-N		200		±0.75			
FSCA300-X-20-N		100	0~20	±0.5			
FSCA300-X-X-20-N		200		±0.75			
FSCA300-X-20-N		Spot		N/A			
FSCA300-X-X-10-N	9~11	100	0~10	±0.5		N	
FSCA300-X-X-10-N		200		±0.75			
FSCA300-X-X-15-N		100	0~15	±0.5			
FSCA300-X-X-15-N		200		±0.75			
FSCA300-X-15-N		Spot		N/A			
FSCA300-X-10-N	11-12.4	Spot	0~10	N/A		N	