Coaxial

Low Pass Filter

VLF-2600+

50Ω *DC to 2600 MHz

Generic photo used for illustration purposes only

CASE STYLE: FF704

Connectors	Model
SMA	VLF-2600+

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C
DC Current Input to Output	0.5A max. at 25°C

** Passband rating, derate linearly to 3.5W at 100°C ambient.*
Permanent damage may occur if any of these limits are exceeded.

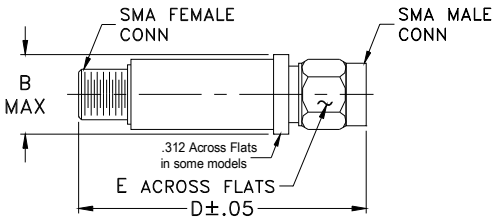
Features

- rugged uni-body construction, small size
- 7 sections
- excellent power handling, 10W
- temperature stable
- low cost
- protected by U.S. Patent 6,943,646

Applications

- harmonic rejection
- transmitters/receivers
- lab use

Outline Drawing



Outline Dimensions (inch / mm)

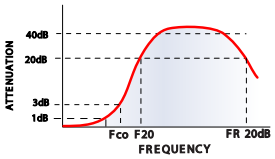
B	D	E	wt
.410	1.43	.312	grams
10.41	36.32	7.92	10.0

Electrical Specifications at 25°C

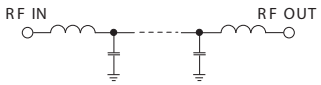
PASSBAND (MHz)	fco, MHz Nom.	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
(loss < 1.2 dB)	(loss 3 dB)	f 20	30	fr 20	Stopband	Passband	
Max.	Typ.	Min.	Typ.	Typ.	Typ.	Typ.	
*DC-2600	3125	3750	3900-6600	8400	20	1.2	7

** Not for use with DC voltage at input and output ports*

typical frequency response

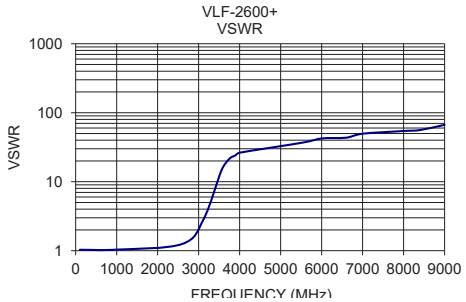


electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100	0.07	1.03
1000	0.25	1.04
2600	0.78	1.25
3125	2.97	2.89
3560	15.15	14.74
3750	23.32	21.46
3900	30.08	24.14
4000	34.10	26.33
5550	45.41	36.97
6000	39.18	42.38
6600	30.88	43.44
7000	27.65	49.64
8000	22.82	54.29
8400	21.58	56.04
9000	19.95	66.82



Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

Coaxial Low Pass Filter VLF-2600+

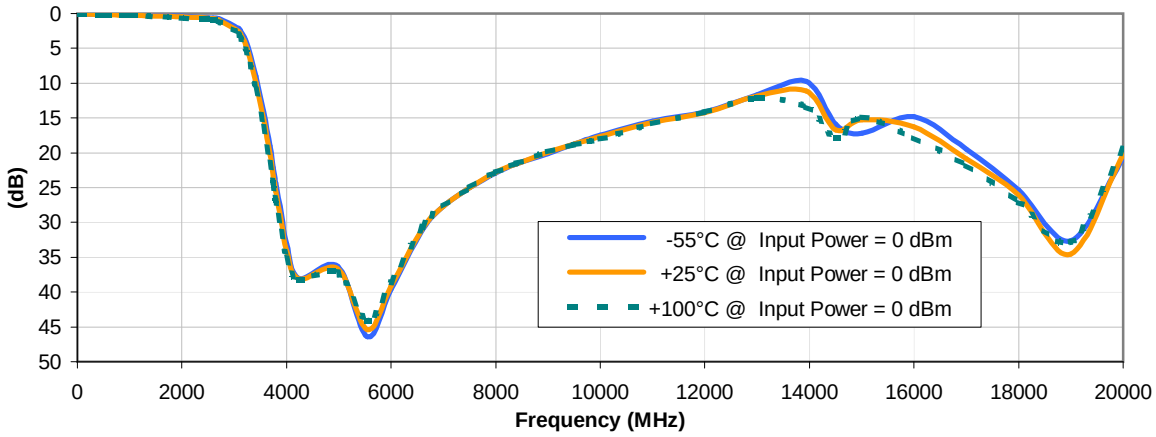
Typical Performance Data

FREQ. (MHz)	INSERTION LOSS (dB)			INPUT RETURN LOSS (dB)			OUTPUT RETURNLOSS (dB)		
	@ -55° C	@ +25° C	@ +100° C	@ -55° C	@ +25° C	@ +100° C	@ -55° C	@ +25° C	@ +100° C
50	0.06	0.06	0.09	36.09	34.63	33.83	35.26	34.23	33.61
100	0.07	0.07	0.09	37.96	36.39	35.15	38.11	36.64	35.67
500	0.12	0.16	0.21	35.88	37.93	40.63	33.78	34.12	34.51
1000	0.18	0.25	0.32	34.88	35.21	33.84	29.60	28.91	27.67
2000	0.38	0.49	0.61	19.21	19.62	19.94	19.40	19.67	19.88
2600	0.62	0.78	0.95	18.79	19.05	19.38	18.11	18.41	18.78
2710	0.70	0.88	1.08	17.84	17.51	17.28	17.01	16.81	16.76
3090	2.12	2.56	3.03	7.52	7.14	6.79	7.49	7.20	6.95
3125	2.49	2.97	3.49	6.57	6.26	5.97	6.57	6.34	6.14
3220	3.88	4.49	5.15	4.37	4.24	4.11	4.52	4.45	4.36
3420	9.02	9.93	10.88	1.73	1.83	1.93	2.00	2.10	2.18
3560	14.09	15.15	16.23	1.02	1.18	1.35	1.34	1.49	1.63
3680	19.06	20.23	21.44	0.72	0.91	1.09	1.09	1.26	1.41
3750	22.11	23.32	24.59	0.61	0.81	0.99	1.02	1.19	1.35
3800	24.32	25.57	26.85	0.58	0.77	0.95	1.00	1.17	1.33
3900	28.85	30.08	31.33	0.53	0.72	0.89	0.98	1.17	1.36
4000	33.06	34.10	35.13	0.46	0.66	0.82	0.93	1.13	1.35
4240	38.01	38.10	38.24	0.36	0.54	0.71	0.91	1.14	1.39
4980	36.31	36.67	37.18	0.29	0.46	0.59	0.72	0.92	1.10
5550	46.40	45.41	44.16	0.27	0.47	0.67	0.48	0.63	0.75
6000	39.62	39.18	38.60	0.18	0.41	0.68	0.36	0.50	0.65
6600	31.06	30.88	30.70	0.18	0.40	0.68	0.22	0.39	0.59
7000	27.67	27.65	27.67	0.14	0.35	0.59	0.24	0.42	0.63
7500	25.03	25.02	25.04	0.15	0.34	0.51	0.17	0.38	0.62
8000	22.87	22.82	22.82	0.11	0.32	0.49	0.19	0.42	0.68
8400	21.63	21.58	21.48	0.06	0.31	0.54	0.20	0.41	0.65
9000	20.14	19.95	19.85	0.03	0.26	0.58	0.19	0.42	0.67
9500	18.77	18.73	18.80	0.02	0.25	0.56	0.24	0.44	0.69
10000	17.47	17.66	18.01	0.04	0.29	0.53	0.30	0.48	0.66
11000	15.40	15.61	15.77	0.15	0.44	0.66	0.33	0.51	0.68
12000	14.11	14.21	14.19	0.21	0.63	1.11	0.41	0.63	0.83
13000	11.68	11.89	12.10	0.58	1.01	1.52	0.73	1.05	1.43
13940	9.76	11.08	13.39	3.61	6.16	8.92	1.28	1.57	1.88
14500	15.91	16.70	17.89	2.47	2.80	3.55	0.94	1.34	1.86
15000	17.17	15.28	14.88	7.43	18.89	15.45	2.86	4.25	3.84
16000	14.84	16.31	17.85	1.84	2.70	4.36	0.70	0.93	1.16
17000	19.52	20.83	21.76	0.67	0.96	1.32	0.59	0.91	1.27
18000	25.38	26.08	27.13	0.11	0.75	1.53	0.72	1.17	1.68
19000	32.62	34.54	32.77	0.71	1.12	1.57	1.27	2.11	3.54
20000	20.76	20.19	19.29	4.95	7.91	10.16	4.75	6.25	7.11

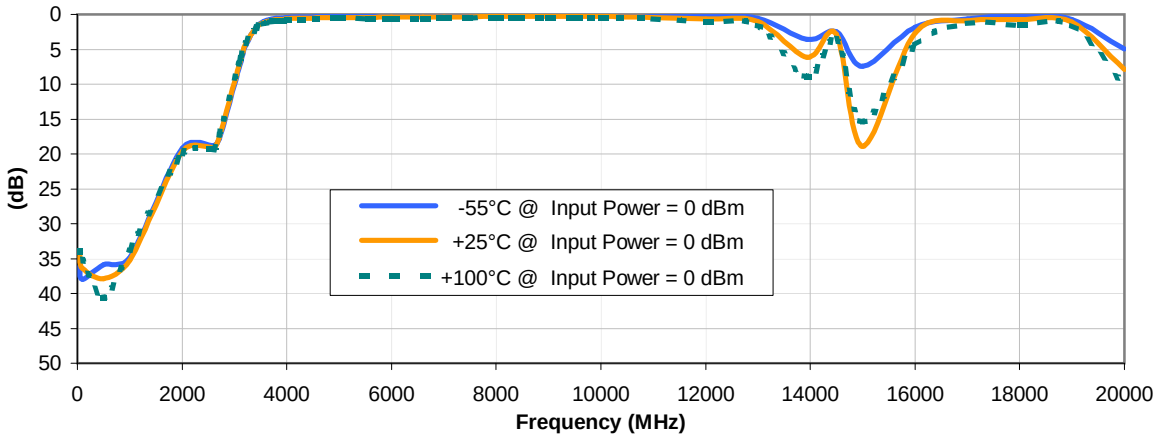
Coaxial Low Pass Filter VLF-2600+

Typical Performance Curves

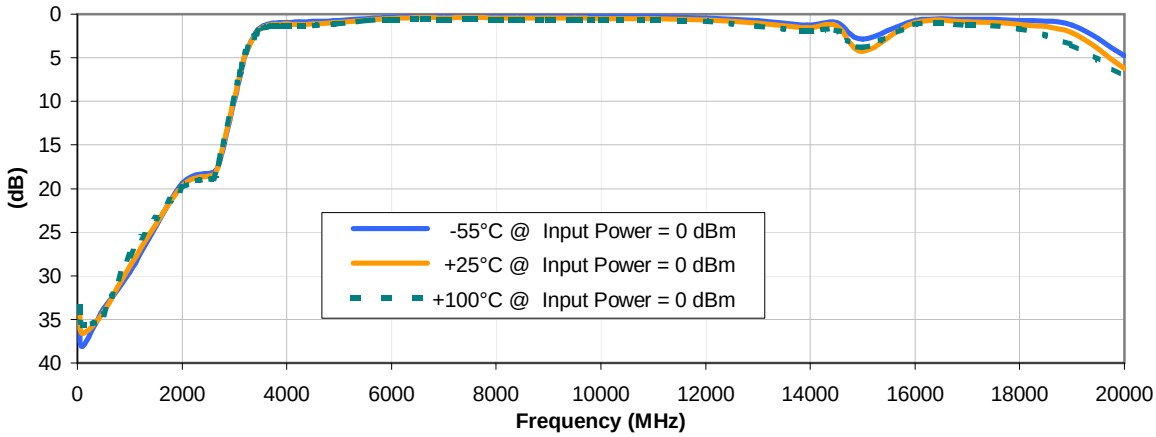
INSERTION LOSS vs. TEMPERATURE



INPUT RETURN LOSS vs. TEMPERATURE



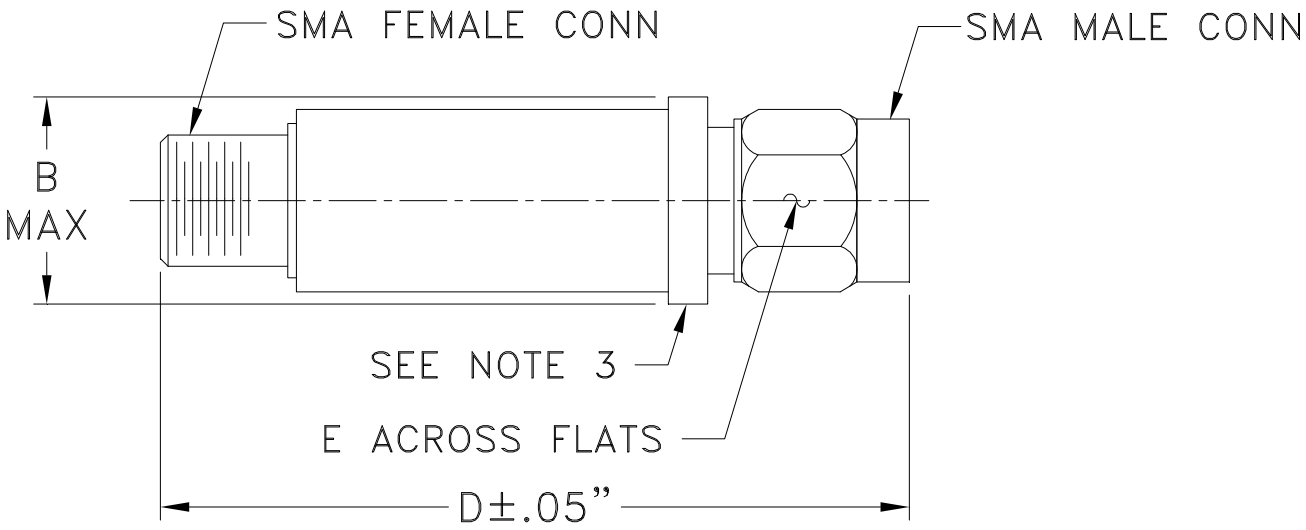
OUTPUT RETURN LOSS vs. TEMPERATURE



Case Style FF

FF704

Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF704	-- --	.410 (10.41)	-- --	1.43 (36.32)	.312 (7.92)	10.0

Dimensions are in inches (mm). Tolerances: 2Pl. ± .04; 3Pl. ± .030

Notes:

1. Case material: Stainless steel.
2. Case finish: Gold plated.
3. Round Flange may have .312 Across Flats in some models.

Mini-Circuits

Environmental Specifications ENV28

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I