

Standard Low Pass Filters



RLC Electronics' Standard Low Pass Filters are available with cut off frequencies ranging from 100MHz to 18 GHz. These filters combine minimum insertion loss and low VSWR in the Pass Band, together with sharp skirt selectivity and high rejection in the Stop Band. This is accomplished by the utilization of multisectional, modern network design. Miniaturization of these units is accomplished by utilizing advanced coaxial techniques and optimum selection of materials. Both lumped constant and distributive techniques are utilized in the fabrication of these filters.

Specifications

F-1-2-3

Model Number	Pass Band (MHz)	3 dB Point (Typical) (MHz)	30 dB Point (Typical) (MHz)	60 db (Min.) Stop Band	Insertion Loss dB Max. Pass Band
F-10-100	DC-100	125	150	180-500	.45
F-10-200	DC-200	250	300	360-1000	.35
F-10-300	DC-300	375	450	540-1500	.35
F-10-400	DC-400	500	600	720-2000	.25
F-10-500	DC-500	625	750	900-2500	.25
F-10-600	DC-600	750	900	1080-3000	.25
F-10-800	DC-800	1000	1200	1440-4000	.25
F-10-1000	DC-1000	1250	1500	1800-5000	.25
F-10-1500	DC-1500	1875	2250	2700-7500	.25
F-10-2000	DC-2000	2500	3000	3600-10000	.25
F-10-3000	DC-3000	3750	4500	5400-15000	.25
F-10-4000	DC-4000	5000	6000	7200-20000	.35
F-10-5000	DC-5000	6250	7500	9000-20000	.35
F-30-600	DC-600	630	720	810-3000	.45
F-30-800	DC-800	840	960	1080-4000	.45
F-30-1000	DC-1000	1050	1200	1350-5000	.45
F-30-1500	DC-1500	1575	1800	2025-7500	.45
F-30-2000	DC-2000	2100	2400	2700-10000	.25
F-30-3000	DC-3000	3150	3600	4050-15000	.25
F-30-4000	DC-4000	4200	4800	5400-20000	.35
F-30-5000	DC-5000	5250	6000	6750-20000	.35
F-30-6000	DC-6000	6300	7200	8100-30000	.35
F-30-7000	DC-7000	7350	8400	9450-35000	.35
F-30-8000	DC-8000	8400	9600	10800-40000	.35
F-30-10.0	DC-10000	10500	12000	13500-40000	.35
F-30-12.4	DC-12400	13000	14900	16740-40000	.45
F-30-18.0	DC-18000	18900	21600	24300-40000	.45

Pass Band VSWR:

1.35:1 to 8 GHz
1.45:1 to 12.4 GHz
1.55:1 to 18.0 GHz

Power Rating: 50 Watts Average

Impedance: 50 Ohms

Environmental: MIL-E-5400, Class 1A Except
Op temp. range -55C to +85C

Connector Types: (Male & Female)

Type- recommend Frequency Range:

N	DC - 12,400 (stopband level not guaranteed)
BNC	DC - 1,000
TNC	DC - 15,000
SMA	DC - 26,000

To designate the filter desired use:

1: 10 or 30 for model number

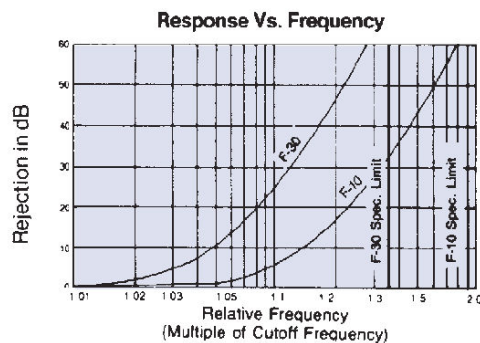
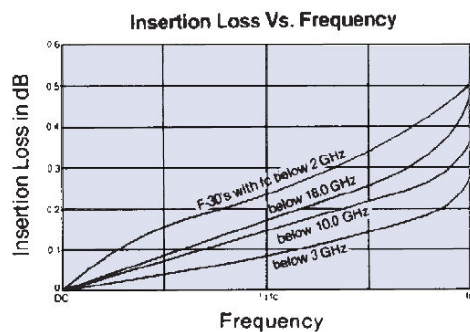
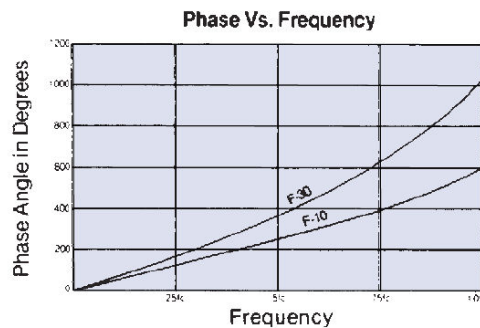
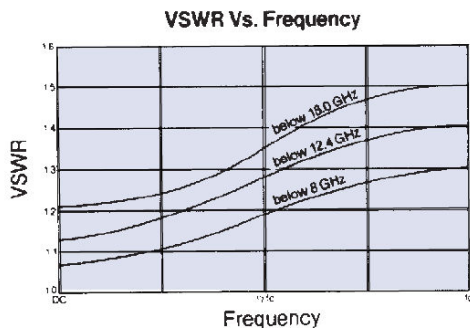
2: 100, 200 etc for cutoff frequency

3: "N" for type N, "B" for BNC, "T" for TNC or "R" for SMA connectors. Add "M" or "F" for two male or female.

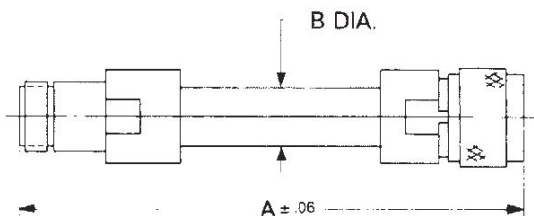
Example: F-30-1000-NF is a model 30, 1000 MHz cutoff with type N female connectors



Typical Operating Curves



Outline Drawing



MODEL	A			B		WEIGHT* (OUNCES)
	N	BNC/TNC	SMA	N.BNC TNC	SMA	
F-30-800	6.51	5.93	5.54	.50	.50	4.5
F-30-800	5.57	5.94	4.95	.50	.50	4.0
F-30-1000	5.28	5.01	4.62	.50	.50	3.0
F-30-1500	4.80	4.53	4.14	.50	.50	3.5
F-30-2000	7.00	6.93	6.48	.44	.44	3.5
F-30-3000	5.31	5.09	4.76	.44	.44	3.0
F-30-4000	4.44	4.23	3.90	.44	.44	2.5
F-30-5000	4.14	3.96	3.76	.44	.31	1.5
F-30-6000	3.92	3.67	3.12	.44	.31	1.5
F-30-7000	3.60	2.56	3.25	.44	.31	1.5
F-30-8000	3.40	3.06	2.94	.44	.31	1.5
F-30-10.0	3.35	3.28	2.68	.44	.31	1.0
F-30-12.4	3.12	2.90	2.13	.44	.31	1.0
F-30-18.0	—	—	1.61	—	.25	1.0

*Type SMA connector

MODEL	A			B		WEIGHT* (OUNCES)
	N	BNC/TNC	SMA	N.BNC TNC	SMA	
F-10-100	6.65	6.42	6.03	.50	.50	5.0
F-10-200	5.02	4.78	4.39	.50	.50	4.5
F-10-300	4.08	3.84	3.45	.50	.50	4.0
F-10-400	3.82	3.57	3.19	.50	.50	4.0
F-10-500	4.62	4.37	3.98	.50	.50	3.5
F-10-600	4.31	4.06	3.67	.50	.50	3.5
F-10-800	3.94	3.70	3.31	.50	.50	3.5
F-10-1000	3.72	3.53	3.14	.50	.50	3.0
F-10-1500	3.49	3.53	2.88	.50	.50	2.5
F-10-2000	6.00	5.40	4.96	.44	.44	2.5
F-10-3000	4.15	4.40	3.87	.44	.44	2.0
F-10-4000	4.00	3.48	3.17	.44	.44	2.0
F-10-5000	3.15	3.40	2.76	.44	.31	2.0

Tolerances unless otherwise specified are: .xx, $\pm .02$; .xxx, $\pm .005$.



RLC ELECTRONICS, INC.

83 Radio Circle, Mount Kisco, New York 10549 - Telephone: 914-241-1334 - Fax: 914-241-1753
e-mail: sales@rlcelectronics.com - www.rlcelectronics.com