RADIO FREQUENCY SYSTEMS
The Clear Choice®

Coaxial Filter

This series of DAB filters are tunable over the entire VHF Band III. The filters offer a compact and flexible solution for both transmitter mask filtering and digital RF channel combining.

The DAB filter range is founded on RFS' world-leading RF combining technology and utilizes a similar platform of components to the company's VHF Band III digital television combiners.

DAB filters can be incorporated within transmitters to provide critical mask filtering of the digital RF signal, in keeping with global DAB standards. When used as the key components of a balanced DAB combiner, the filters can achieve both critical transmitter masking and adjacent channel combining simultaneously, eliminating the need for additional filters within the transmitter. The 100-mm models can be installed within a standard 19-inch rack. The nominal bandwidth of all models is 1.54 MHz, as specified by the global "Eureka 147" DAB standard.

Showing 8PX100DAB filter

FEATURES / BENEFITS

- **Compact design**
- **6 and 8 pole versions are available**
- **Tunable for various emission masks**
- **Available in 3 cavity sizes 100 mm, 180 mm and 270 mm**
- **Natural convection cooling for all power levels**
- **Low loss for all cavity sizes**
- **RFS R series connectors provide "mix and match" interface to common standards**

Technical Features

ELECTRICAL SPECIFICATIONS

Model	6PX100DAB	6PX180DAB	6PX270DAB	6PX270DAB
Frequency Range	MHz	174 - 240	174 - 240	174 - 240
Input Connector	16R Note 1	31R Note 1	31R Note 1	31R Note 1
Filter Type	6 Pole, single cross coupling	6 Pole, single cross coupling	6 Pole, single cross coupling	6 Pole, single cross coupling
Input Power (maximum)	kW Average	0.5	1.5	1.5
Insertion Loss at Channel Centre Frequency	dB	<1.3	<0.8	<0.8
Input Return Loss, dB	dB	>23	>23	>23
Filter Selectivity, dB	dB	< 1.5 ±0.77MHz > 9 ±0.97MHz > 42 ±1.75MHz > 55 ±3.0MHz	< 1.0 ±0.77MHz > 9 ±0.97MHz > 42 ±1.75MHz > 55 ±3.0MHz	< 1.0 ±0.77MHz > 9 ±0.97MHz > 42 ±1.75MHz > 55 ±3.0MHz
Operating Temperature Range	°C	0 to 45	0 to 45	0 to 45
Weight	kg (lb)	17 (37.4)	39 (86)	39 (86)
Dimensions (Height or Length)	cm (in)	65 (25.59)	65 (25.59)	65 (25.59)
Dimensions (Width)	cm (in)	11 (4.33)	37.5 (14.76)	37.5 (14.76)
Dimensions (Depth)	cm (in)	84 (33.07)	78.5 (30.91)	78.5 (30.91)
Model	8PX100DAB	8PXX180DAB	8PXX270DAB	8PXX270DAB
Frequency Range	MHz	174 - 240	174 - 240	174 - 240
Input Connector	16R Note 1	31R Note 1	31R Note 1	31R Note 1
Filter Type	8 Pole, single cross coupling	8 Pole, dual cross coupling	8 Pole, dual cross coupling	8 Pole, dual cross coupling
Input Power (maximum)	kW Average	0.5	1.5	1.5
Insertion Loss at Channel Centre Frequency	dB	<1.7	<0.9	<0.9
Input Return Loss, dB	dB	>23	>23	>23
Filter Selectivity, dB	dB	< 1.8 ±0.77MHz > 15 ±0.97MHz > 47 ±1.75MHz > 70 ±3.0MHz	< 1.0 ±0.77MHz > 18 ±0.97MHz > 66 ±2.2MHz > 66 ±3.0MHz	< 1.0 ±0.77MHz > 18 ±0.97MHz > 66 ±2.2MHz > 66 ±3.0MHz
Operating Temperature Range	°C	0 to 45	0 to 45	0 to 45
Weight	kg (lb)	22 (48.4)	47 (103.4)	47 (103.4)

Coaxial Filter

Dimensions (Height or Length)	cm (in)	65 (25.59)	65 (25.59)	65 (25.59)
Dimensions (Width)	cm (in)	11 (4.33)	37.5 (14.76)	37.5 (14.76)
Dimensions (Depth)	cm (in)	106 (41.73)	101.5 (39.96)	101.5 (39.96)

External Document Links

Notes

Note 1 The RFS R series provides a "mix and match" interface to 50 ohm EIA/IEC standard connectors