

Dual-mode Channel Filters

7.1 - 7.9 GHz



Main Electrical & Mechanical Characteristics

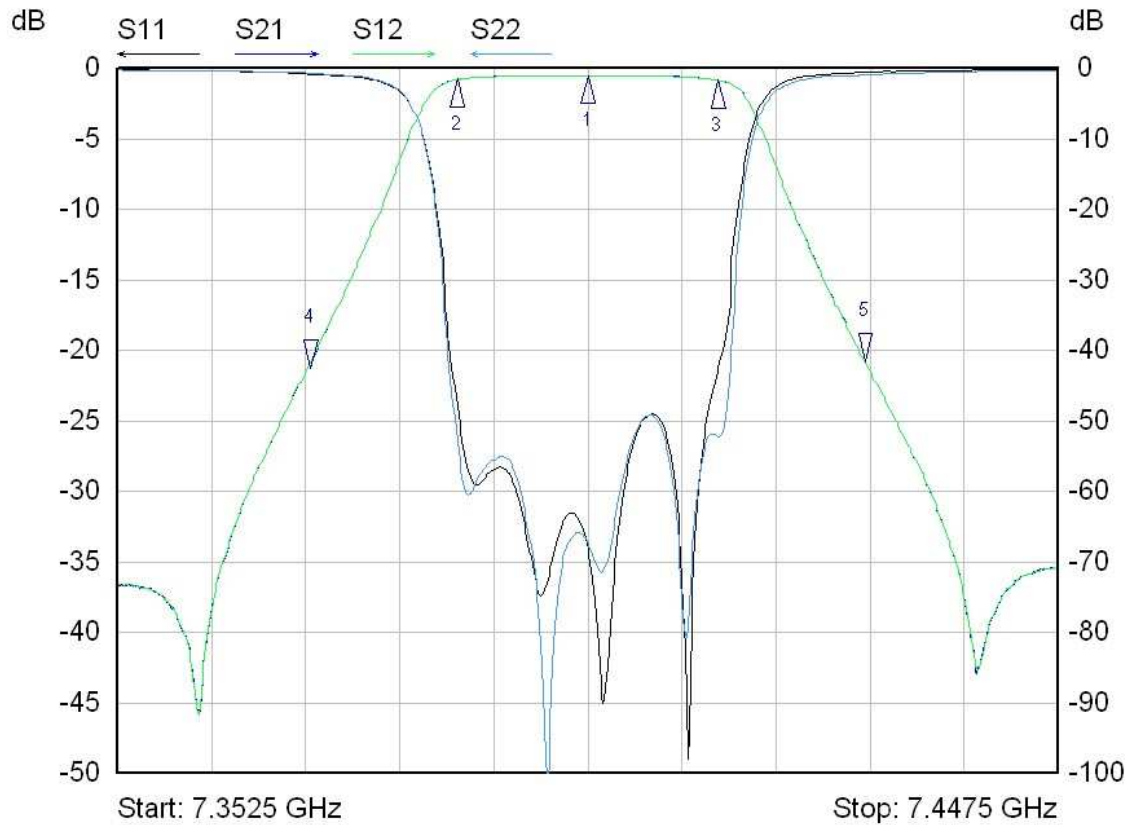
Center Frequency Range	7.100 ÷ 7.900 GHz
Bandwidths	from 28 to 56 MHz
Number of Resonators	3 dual-mode resonators
Insertion Loss	< 1.5 dB (BW 28 MHz)
	< 1.0 dB (BW 56 MHz)
Return Loss	> 23 dB
Dimensions	124.7 x 51.2 x 34.9 mm (7.1 ÷ 7.45 GHz)
	117.5 x 51.2 x 34.9 mm (7.4 ÷ 7.65 GHz)
	111.5 x 51.2 x 34.9 mm (7.6 ÷ 7.9 GHz)
Connectors	90 ° SMA-Female Connector and
	UER 84 Flange

Measured Frequency Response

Frequency Response @ $f_0 = 7.4 \text{ GHz}$ BW = 28 MHz

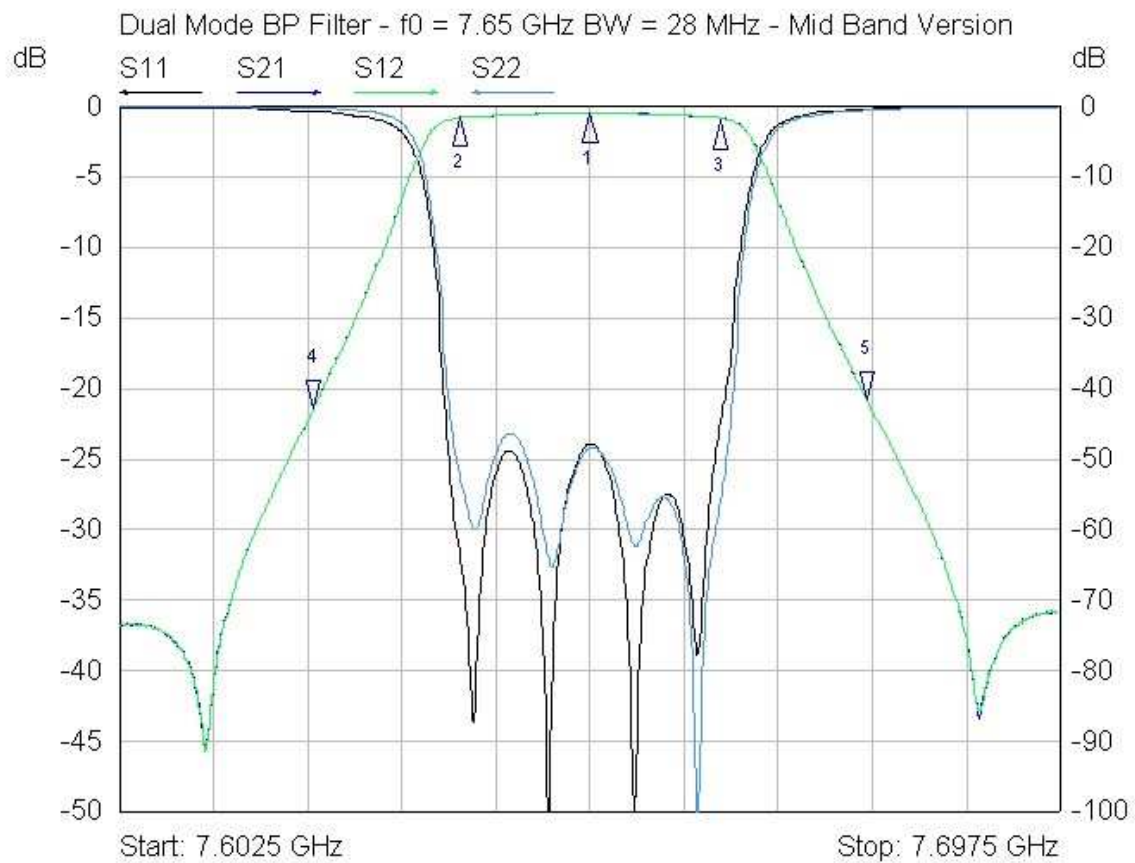
Dual Mode BP Filter - $f_0 = 7.4 \text{ GHz}$ BW = 28 MHz - Lower Band

Version



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S21	7.4000 GHz	-1.07 dB	
2 ▾	S21	7.3868 GHz	-1.61 dB	
3 ▾	S21	7.4132 GHz	-1.74 dB	
4 ▾	S21	7.3720 GHz	-41.68 dB	
5 ▾	S21	7.4280 GHz	-41.61 dB	

Frequency Response @ $f_0 = 7.65 \text{ GHz}$ BW = 28 MHz

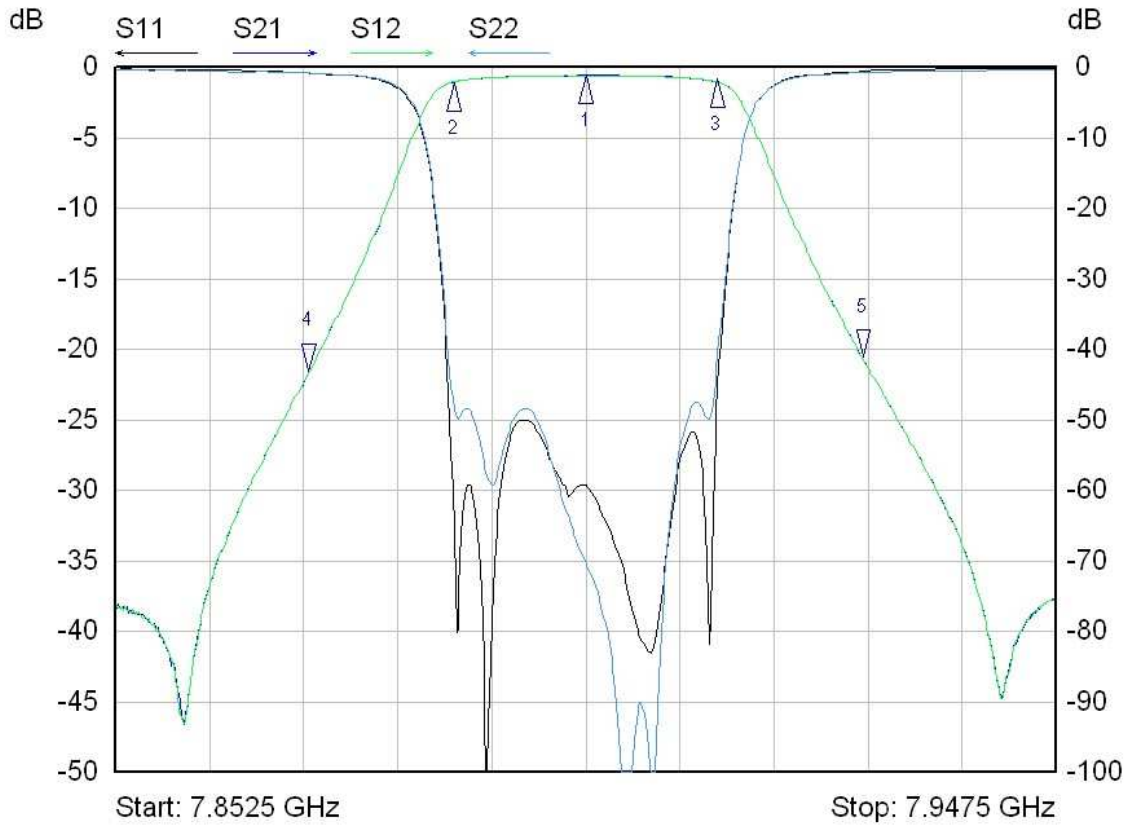


Mkr	Trace	X-Axis	Value	Notes
1 ▽	S21	7.6500 GHz	-1.04 dB	
2 ▽	S21	7.6368 GHz	-1.58 dB	
3 ▽	S21	7.6632 GHz	-1.63 dB	
4 ▽	S21	7.6220 GHz	-42.94 dB	
5 ▽	S21	7.6780 GHz	-41.69 dB	

Frequency Response @ $f_0 = 7.9 \text{ GHz}$ $BW = 28 \text{ MHz}$

Dual Mode BP Filter - $f_0 = 7.9 \text{ GHz}$ $BW = 28 \text{ MHz}$ - Upper Band

Version

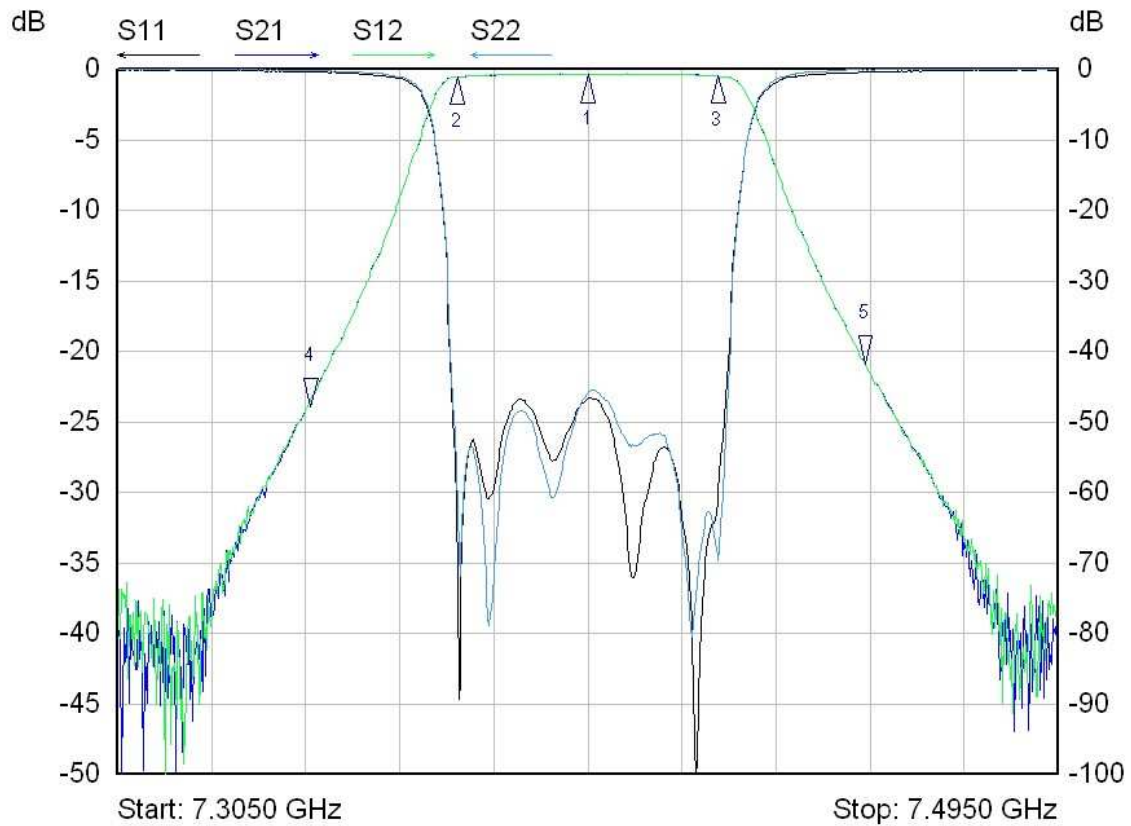


Mkr	Trace	X-Axis	Value	Notes
1 ▽	S21	7.9000 GHz	-1.24 dB	
2 ▽	S21	7.8868 GHz	-1.97 dB	
3 ▽	S21	7.9132 GHz	-2.01 dB	
4 ▽	S21	7.8720 GHz	-43.26 dB	
5 ▽	S21	7.9280 GHz	-41.33 dB	

Frequency Response @ $f_0 = 7.4 \text{ GHz}$ $BW = 56 \text{ MHz}$

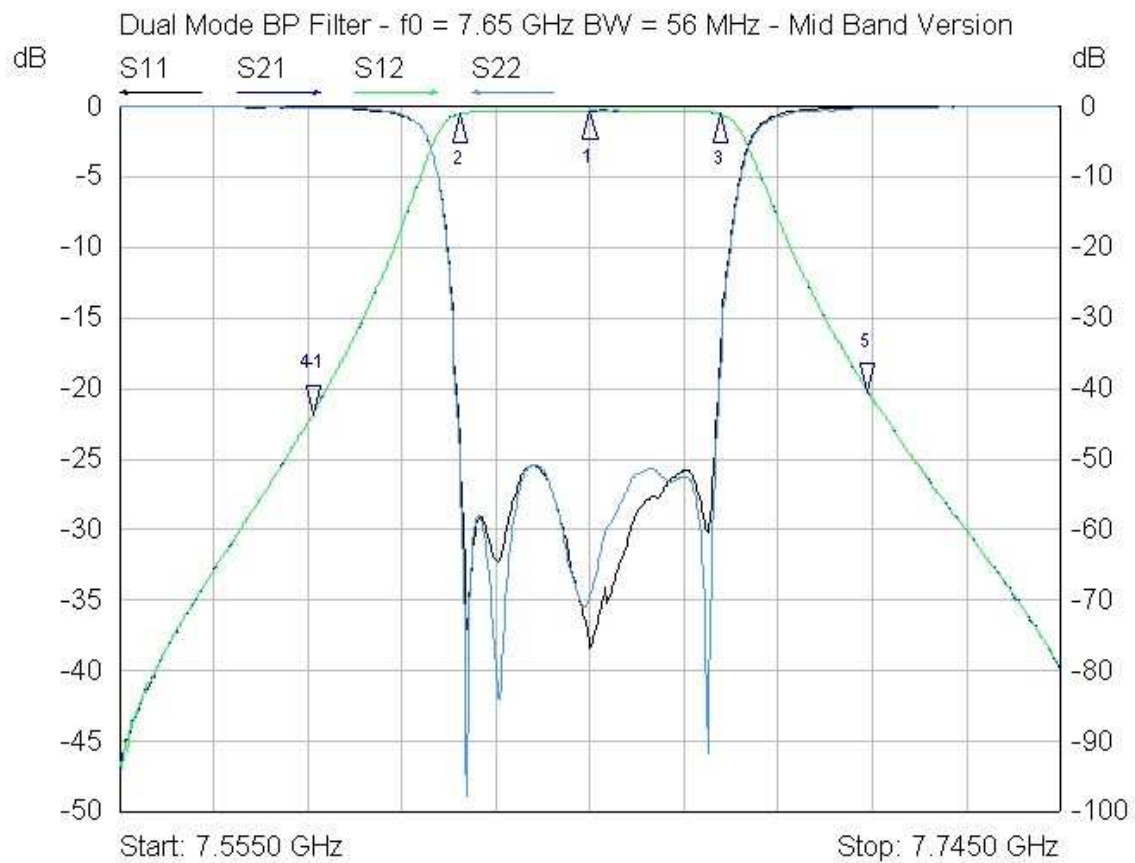
Dual Mode BP Filter - $f_0 = 7.4 \text{ GHz}$ $BW = 56 \text{ MHz}$ - Lower Band

Version



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S21	7.4000 GHz	-0.60 dB	
2 ▾	S21	7.3736 GHz	-1.01 dB	
3 ▾	S21	7.4264 GHz	-0.89 dB	
4 ▾	S21	7.3440 GHz	-47.54 dB	
5 ▾	S21	7.4560 GHz	-41.98 dB	

Frequency Response @ $f_0 = 7.65 \text{ GHz}$ BW = 56 MHz

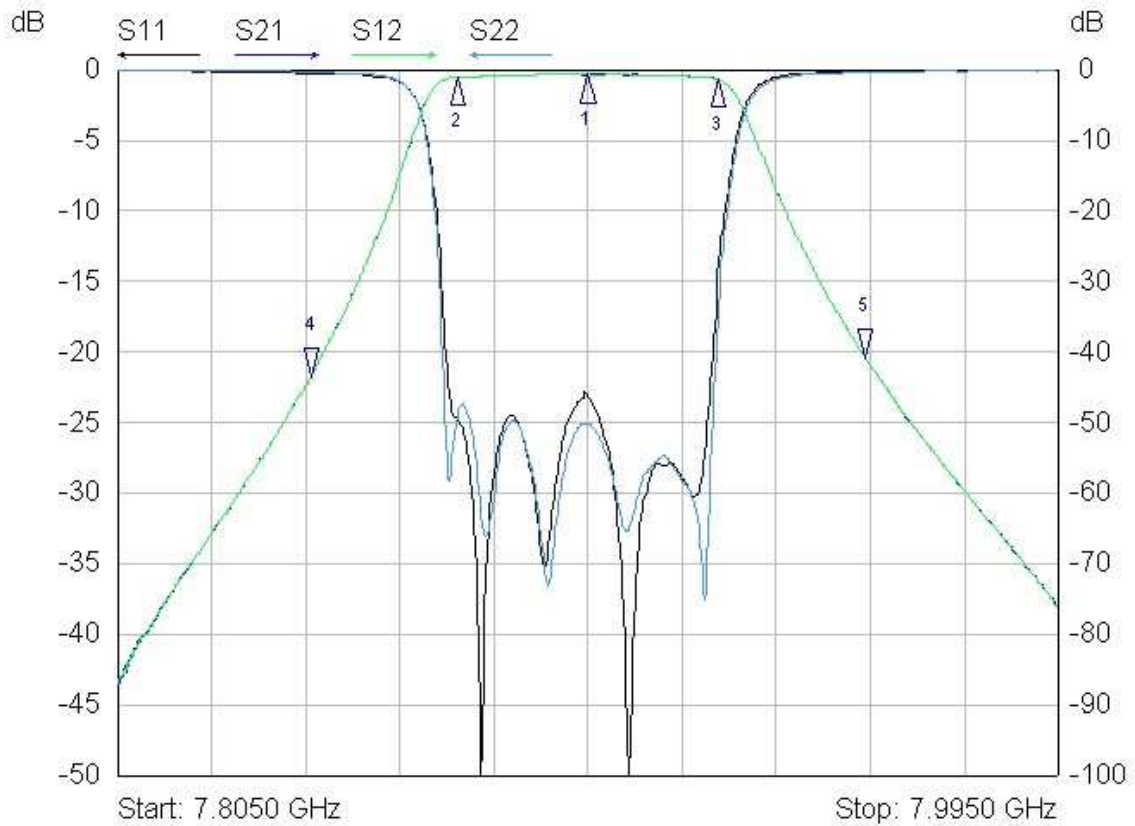


Mkr	Trace	X-Axis	Value	Notes
1 ▽	S21	7.6500 GHz	-0.59 dB	
2 ▽	S21	7.6236 GHz	-1.06 dB	
3 ▽	S21	7.6764 GHz	-1.12 dB	
41 ▽	S21	-56.0000 MHz	-42.93 dB	
5 ▽	S21	7.7060 GHz	-40.34 dB	

Frequency Response @ $f_0 = 7.9 \text{ GHz}$ BW = 56 MHz

Dual Mode BP Filter - $f_0 = 7.9 \text{ GHz}$ BW = 56 MHz - Upper Band

Version



Mkr	Trace	X-Axis	Value	Notes
1 ▽	S21	7.9000 GHz	-0.75 dB	
2 ▽	S21	7.8736 GHz	-1.10 dB	
3 ▽	S21	7.9264 GHz	-1.46 dB	
4 ▽	S21	7.8440 GHz	-43.52 dB	
5 ▽	S21	7.9560 GHz	-40.83 dB	