Bandpass Filter · 1775–1825 MHz

Use the 37.4 × 9 mm hole-center spacing and allow mating clearance for the opposed SMA-K connectors. Minimum rejection is 33 dB from 1900 to 5000 MHz.

RF Performance

Parameter	Value
Passband	1775–1825 MHz
Passband Insertion Loss [1]	≤ 5.5 dB
Passband Ripple [1]	≤ 1.0 dB
Out-of-Band Rejection · DC–1700 MHz	≥ 30 dB
Out-of-Band Rejection · 1900–5000 MHz	≥ 33 dB
VSWR [1]	≤ 1.6

[1] 1775–1825 MHz

Design Ratings

Guaranteed by design

Parameter	Value
Power Handling	2 W
Operating Temperature	−40…+70 °C
Storage Temperature	−55…+85 °C

Typical measured response

Frequency	S11 VSWR	S22 VSWR	S12 loss (dB)	S12 rejection (dB)	S12 delay (ns)
1700 MHz	35.78	71.47	-40.68	-40.68	1.95
1714 MHz	22.84	33.9	-34.47	-34.47	3.08
1729 MHz	12.04	15.57	-26.16	-26.16	5.74
1743 MHz	5.21	5.89	-16.54	-16.54	11.34
1757 MHz	1.69	1.51	-7.95	-7.95	18.08
1771 MHz	1.07	1.45	-5.5	-5.5	15.06
1786 MHz	1.33	1.53	-4.93	-4.93	13.22
1800 MHz	1.21	1.27	-4.8	-4.8	13.02
1814 MHz	1.03	1.12	-5.1	-5.1	13.7
1829 MHz	1.39	1.63	-6.24	-6.24	14.86
1843 MHz	1.94	1.73	-8.52	-8.52	19.46

Typical measured response

Frequency	S11 VSWR	S22 VSWR	S12 loss (dB)	S12 rejection (dB)	S12 delay (ns)
1857 MHz	4.81	4.41	-17.59	-17.59	12.96
1871 MHz	10.94	12.08	-29.09	-29.09	5.64
1886 MHz	18.73	25.78	-38.96	-38.96	3.08
1900 MHz	27.69	47.16	-46.42	-46.42	2.23

Mechanical Specifications

Parameter	Value
RF Interface	SMA-K
RF Impedance	50 Ω
Surface Finish	Silver plating
Housing material	H62 brass
Connector material	Stainless steel
Housing dimensions	40.4 × 12 × 10 mm (Excluding connector protrusion)
Mounting holes	4 × M2 mounting threads (Hole-center spacing 37.4 × 9 mm)

Installation and handling

Clean the product surface without immersing the filter in cleaning liquid. Consult before ordering if the temperature of the complete unit will exceed 125 °C.

Document notice

Specifications are subject to revision. Before design release, confirm the current document revision and product-specific requirements with LCRF. The approved quotation and order documentation define the supplied configuration.