Low-Pass Filter · DC–7000 MHz

Rejection is at least 40 dB in the 8050–14000 MHz stopband. The typical data include readings at 7500 and 7800 MHz, above the upper passband edge.

Plan for a 32 × 20 × 10 mm body plus the SMA connectors. Power handling is stated as 20 W. The −40…+85 °C operating range is guaranteed by design.

RF Performance

Parameter	Value
Passband	DC–7000 MHz
Passband Insertion Loss	≤ 1.5 dB
Out-of-band rejection	≥ 40 dB (8050–14000 MHz)
VSWR	≤ 1.8

Power and Temperature Ratings

Parameter	Value
Power Handling	20 W
Operating Temperature	−40…+85 °C (Guaranteed by design)

Typical Test Data

Parameter	S11 VSWR	S22 VSWR	S21 (dB)	S12 Delay (ns)
0.1	1.01	1.01	0.01	0.17
0.63	1.02	1.04	0.02	0.17
1.16	1.02	1.06	0.01	0.17
1.69	1.01	1.04	0.01	0.18
2.21	1.03	1.02	0.01	0.18
2.74	1.11	1.13	-0.02	0.18
3.27	1.25	1.28	-0.07	0.19
3.8	1.38	1.41	-0.1	0.2
4.33	1.4	1.42	-0.1	0.21
4.86	1.23	1.22	-0.07	0.23
5.39	1.12	1.14	-0.07	0.26
5.91	1.48	1.49	-0.21	0.29
6.44	1.31	1.31	-0.2	0.38
6.97	1.2	1.22	-0.4	0.69

Typical Test Data

Parameter	S11 VSWR	S22 VSWR	S21 (dB)	S12 Delay (ns)
7.5	41.75	47.19	-14.76	0.61
7.8	119	139	-33.1	2.15

Mechanical and Interface Specifications

Parameter	Value
RF Impedance	50 Ω
RF Interface	SMA-K
Body dimensions	32 × 20 × 10 mm (Excluding connectors)
Mounting hole center spans	28 × 16 mm
Mounting hole pattern	4 hole locations, Ø2.3 mm
Connector material	Stainless steel
Housing material	6061 aluminum
RF connector axis height above housing base	5 mm
Housing corner radius	1 mm

Assembly and Integration

Do not immerse the filter in cleaning solution. 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.