Five-path bandpass filter bank

The five nested passbands offer different bandwidths. The maximum bandwidth at −40 dB ranges from 24 MHz on CH1 to 120 MHz on CH5.

Each channel uses a pair of opposing round RF pins. Both pins carry that channel's mark (CH1–CH5).

RF Performance

Parameter	Value
Passband CH1	137.5–142.5 MHz
Passband CH2	135–145 MHz
Passband CH3	130–150 MHz
Passband CH4	120–160 MHz
Passband CH5	110–170 MHz
Passband Insertion Loss	≤ 5 dB
Passband ripple	≤ 0.5 dB
VSWR	≤ 1.5
Bandwidth at −40 dB CH1	≤ 24 MHz
Bandwidth at −40 dB CH2	≤ 40 MHz
Bandwidth at −40 dB CH3	≤ 60 MHz
Bandwidth at −40 dB CH4	≤ 92 MHz
Bandwidth at −40 dB CH5	≤ 120 MHz
Out-of-band rejection CH1	≥ 40 dB (DC–128 MHz)
Out-of-band rejection CH1	≥ 40 dB (152–280 MHz)
Out-of-band rejection CH2	≥ 40 dB (DC–120 MHz)
Out-of-band rejection CH2	≥ 40 dB (160–280 MHz)
Out-of-band rejection CH3	≥ 40 dB (DC–110 MHz)
Out-of-band rejection CH3	≥ 40 dB (170–280 MHz)
Out-of-band rejection CH4	≥ 40 dB (DC–94 MHz)
Out-of-band rejection CH4	≥ 40 dB (186–280 MHz)
Out-of-band rejection CH5	≥ 40 dB (DC–80 MHz)
Out-of-band rejection CH5	≥ 40 dB (200–280 MHz)
Out-of-band rejection CH1–CH5	≥ 45 dBc (280–400 MHz)

Temperature and power

Guaranteed by design

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

RF path connections

Parameter	Value
Independent RF paths	5
RF terminals	10
CH1 [1]	CH1
CH2 [1]	CH2
CH3 [1]	CH3
CH4 [1]	CH4
CH5 [1]	CH5

[1] One pair of opposing RF pins

Mechanical Specifications

Parameter	Value
RF Interface	Ø0.38 mm round microstrip pins
RF Impedance	50 Ω
Surface finish	Silver plated
Housing material	6061 aluminum
Housing dimensions	25 × 49 × 7 mm
Pin spacing on the same side	9.5 mm
Mounting holes	4 × M1.6 (Thread depth 4 mm)
Mounting hole-center spacing	22.5 × 46.5 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.