

Product features

High precision silicon-based MEMS processing technology,
50 Ω coplanar waveguide output, gold wire bonding.

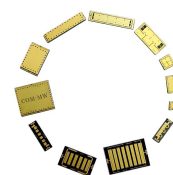
Main specifications

Parameters	Frequency	/	Min	Typical	Max	Units
Passband	/	/	32000	~	40000	MHz
Center loss	/	/		1.8		dB
Ripple	/	/			1.2	dB
Rejection	30.2&42.8	GHz $\geq$	20			dB
Rejection	30.0	GHz $\geq$	30			dB
Rejection	DC-27.9	GHz $\geq$	40			dB
Passband VSWR	/	/			1.8	

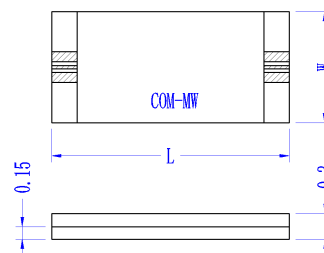
Other parameters

Connector	Microstrip pad
Impedance	50 Ω
Power Capacity	35dBm Design assurance
Delay ripple	$\leq$ 0.6ns
Phase balance	$\leq \pm 5^\circ$
Operation Temp.	-55~+85°C Design assurance
Storage Temp.	-55~+125°C Design assurance
Quality Grade	Industrial grade
ROHS	Compliant Available
Filter Category	MEMS

Reference picture

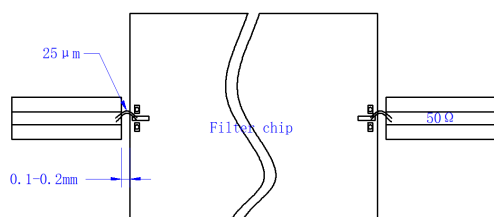


Configuration(mm)



Size Code	Mini value (mm)	Nominal value (mm)	Max value (mm)
L	2.9	3.0	3.1
W	1.5	1.6	1.7

Assembly diagram

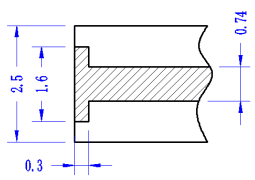
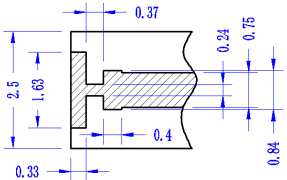


Note: The specifications and performance data contained in this data sheet are based on tests established by CMW.

Assembly instructions

1. The chip is recommended to be installed in a metal cavity, with a distance of 0.1mm from the side walls on both sides of the chip, and a gap of ≥ 3 mm between the upper surface of the chip and the metal shielding cover plate,
2. It is recommended to use low-temperature solder or low stress conductive adhesive for chip soldering,
3. The chip should be installed on a carrier with a thermal expansion coefficient equivalent to that of silicon (2.9ppm/ $^{\circ}$ C), such as Kovar, with a carrier thickness of ≥ 0.2 mm,
4. When bonding microstrip lines to chips, it is recommended to use a $50\mu\text{m} \times 10\mu\text{m}$ gold strip or two $25\mu\text{m}$ gold wires, with the gold wire (gold strip) as short as possible,
5. When the passband frequency of silicon-based MEMS microstrip bandpass filters is above 10GHz, it is recommended to use a T-shaped structure for matching at the microstrip line bonding.

Suggested PCB Layout

ER:2.2 H:0.254mm	ER:2.2 H:0.254mm
	
Frequency range 10-20GHz	Frequency range >20GHz

Typical test curve

