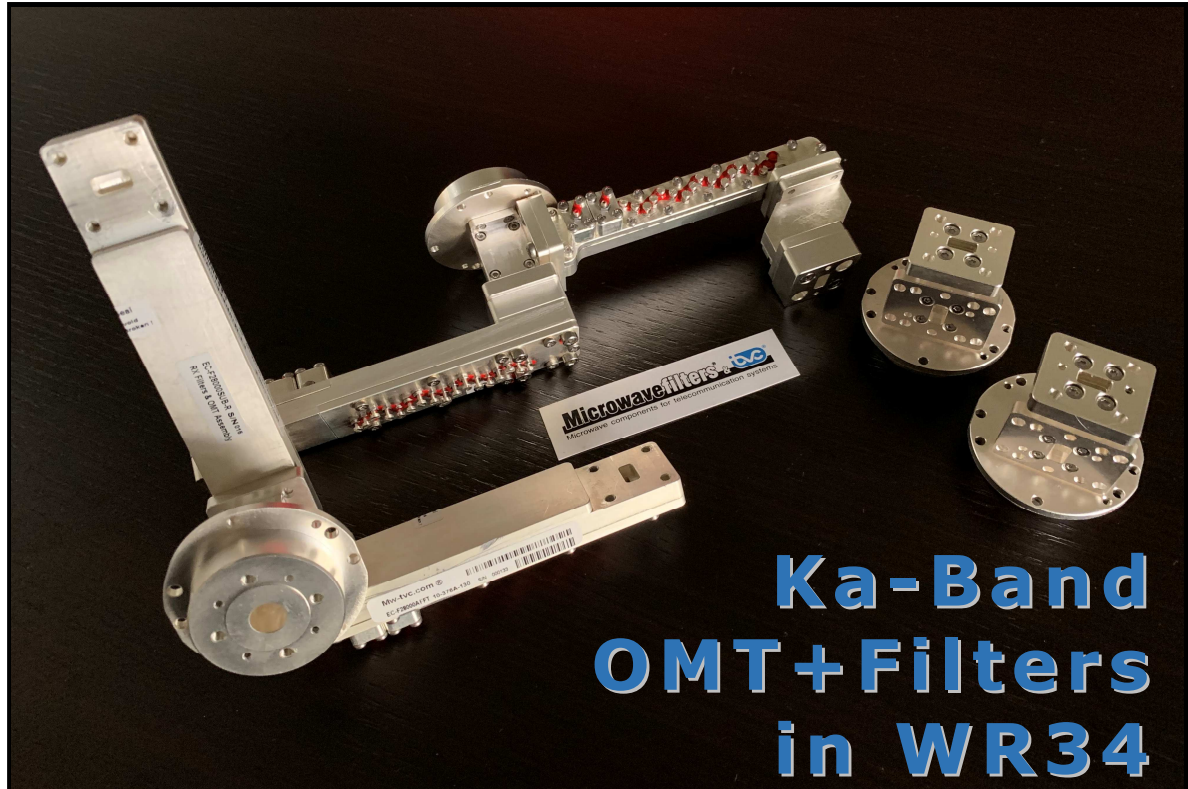


Microwavefilters® &

Microwave components for telecommunication systems



**Dual-Band Filters with Notch > 35 dB
between Passbands
H-V Isolation \geq 40 dB**

Microwavefilters & TVC srl

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Microwave components for telecommunication systems

MW&TVC presents a new family of Ka-Band (28 GHz) waveguide dual-band filters + OMT. There are three variants of filters that comply with the same electrical specifications (there are two tuning extensions), but have different mechanical outline. They can be mounted on the OMT in several combinations. Isolation between the H- and V-paths is more than 40 dB.

Electrical Specifications

Type A

Passband 1	27.60 ÷ 27.95 GHz
Passband 2	28.05 ÷ 28.35 GHz
Insertion Loss	≤ 1.5 dB
Return Loss	≥ 20 dB
Attenuation @ 26.5 GHz	≥ 60 dB
Attenuation btw 29.15÷30.65 GHz	≥ 60 dB
Attenuation @ 28 GHz	≥ 35 dB

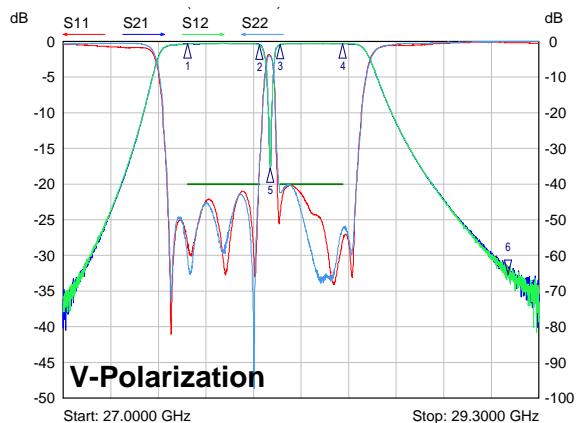
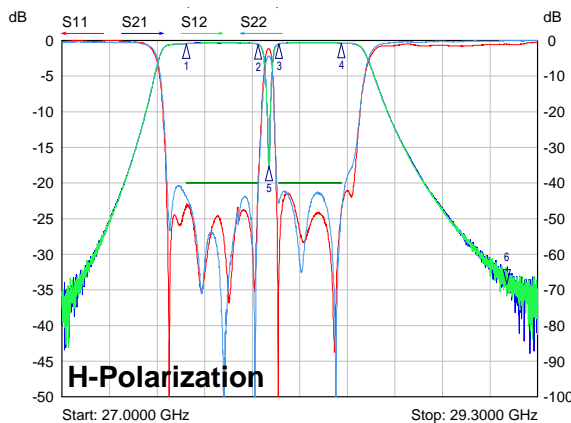
Type B

Passband 1	27.60 ÷ 27.85 GHz
Passband 2	28.05 ÷ 28.35 GHz
Insertion Loss	≤ 1.5 dB
Return Loss	≥ 20 dB
Attenuation @ 26.5 GHz	≥ 60 dB
Attenuation btw 28.95÷30.65 GHz	≥ 60 dB
Attenuation @ 27.95 GHz	≥ 35 dB

Group Delay	≤ 6 ns
Isolation between H & V polarizations (with circular port terminated)	≥ 40 dB

Operating Temperature	-35 ÷ +55 °C
Circular Waveguide	Ø8.33 mm (IEC C255)
H&V Ports	WR34 (R260) – WR28 (R320) also possible with waveguide adapters

Typical Measurements (Type A)

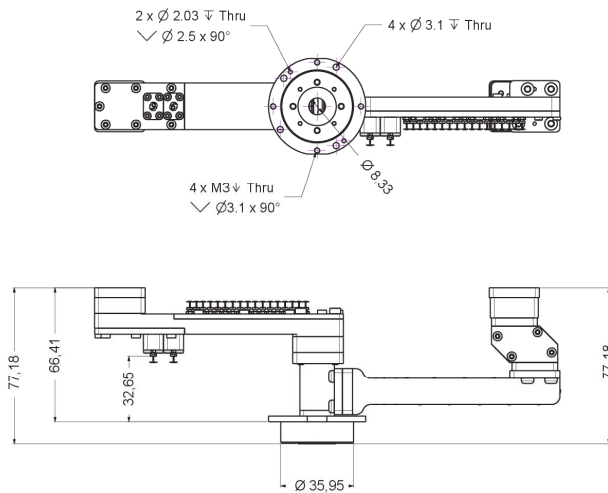


Mkr	Trace	X-Axis	Value	Notes
1	S21	27.6000 GHz	-0.93 dB	
2	S21	27.9500 GHz	-1.14 dB	
3	S21	28.0500 GHz	-0.97 dB	
4	S21	28.3500 GHz	-0.77 dB	
5	S21	28.0000 GHz	-35.31 dB	
6	S21	29.1500 GHz	-68.36 dB	

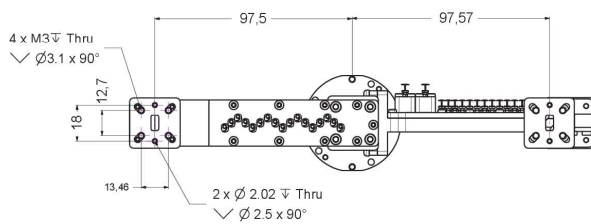
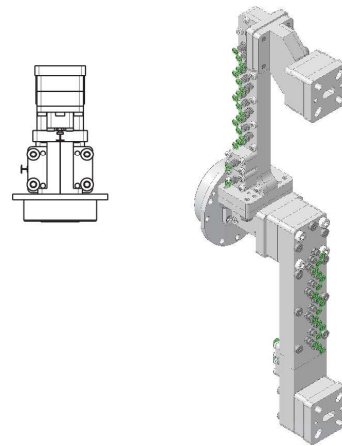
Mkr	Trace	X-Axis	Value	Notes
1	S21	27.6000 GHz	-0.70 dB	
2	S21	27.9500 GHz	-0.92 dB	
3	S21	28.0500 GHz	-0.91 dB	
4	S21	28.3500 GHz	-0.67 dB	
5	S21	28.0000 GHz	-35.55 dB	
6	S21	29.1500 GHz	-65.32 dB	

Microwave components for telecommunication systems

Examples of Mechanical Outlines



Variant with H & V Ports in WR28 Waveguide



Variant with H & V Ports in WR34 Waveguide

