E-band

Bandpass Waveguide Filter (71-76 GHz)

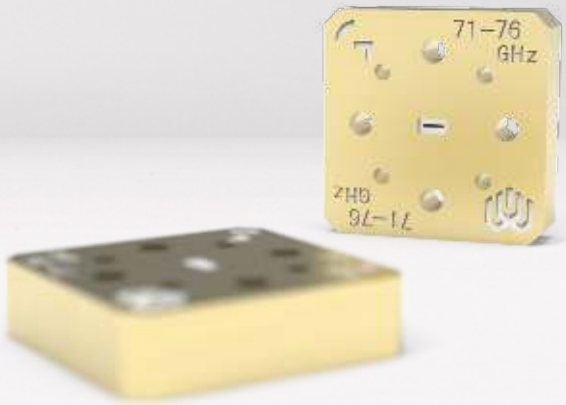
Gapwaves offers the E-band ultra-thin waveguide bandpass filter with a passband of 71-76 GHz. The filter has a typical insertion loss of 0.65 dB and typical rejection of 60 dB at 81 GHz. Custom designs with different passband and rejection are available.

Summary

- Ultra-thin
- Low Cost
- Low Insertion Loss
- High Rejection

Application

- E-band communication radios
- Small cell backhaul
- Radar systems
- Instrumentation



Gapwaves Technology

The innovation in our solutions lies in the patented Gapwaves waveguide technology based on an Artificial Magnetic Conductor (AMC) surface that enables propagation of electromagnetic waves in contactless artificial waveguide structures. This is the key to designing high performance waveguide antenna structures with a high degree of flexibility using well-established, high-volume production processes.

The technology has its most advantages within radar antennas for automotive, last mile delivery and traffic managmement, phased array antenna solutions for 5G mmWave and products for test & measurements.

About Gapwaves

Gapwaves originates from research conducted at Chalmers University of Technology and was founded in 2011. Gapwaves vision is to be the most innovative provider of mmWave antenna systems and the preferred partner to those pioneering next generation wireless technology. By leveraging the disruptive Gapwaves technology we help pioneers within the telecom and radar antenna industry to create highly efficient mmWave antenna systems that contributes to re-defining everyday life. Gapwaves markets are e.g. mmWave in 5G telecom and radar antennas.

Electrical Specification	Minimum	Typical	Maximum
Passband	71 GHz		76 GHz
Return loss		>17 dB	
Insertion loss		0.65 dB	
Passband ripple		0.1 dB	
Rejection		>60 dB @ 81 GHz	
Operating temperatur	-45°C	+85°C	

Mechanical specification	Minimum
In/Out	WR-12 with UG-387/U flange
Material	Brass
Weight	<15g
Finishing	Silver (tarnish resist)
Size	22 mm (L) x 22mm (W) x 6 mm (H)

info@gapwaves.com | gapwaves.com

GAPWAVES