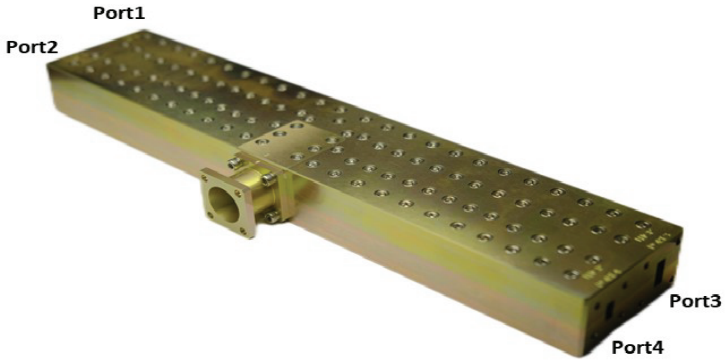
SW-WDA-K1

K & Ka band dual channel & dual circular polarized probe antenna

Applications

1-Satellite communications
2-Radar applications
3-5G systems
4-Communication systems



General description

Open-ended waveguide is a broadband antenna equipped with a diplexer, operating in the frequency ranges of 16.7 GHz to 18.7 GHz and 26.5 GHz to 28.5 GHz. Combined diplexer and antenna supports both the K and Ka bands, commonly used for satellite communications. It is capable of transmitting and receiving in both left-hand circular polarization (LHCP) and right-hand circular polarization (RHCP) across both bands, offering high port isolation, low VSWR, and minimal insertion loss. The antenna gain is 7 dBi for the K band and 10 dBi for the Ka band. This horn antenna provides typical isolation of 40 dB between the K and Ka band ports. The antenna ports are compatible with WR28 and WR42 waveguides. Port 1 & 2 are used to excite RHCP and Port 3

Electrical Specifications

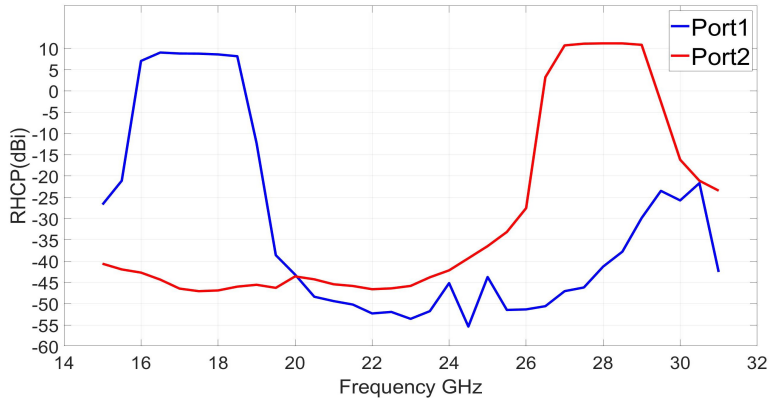
Frequency Range: 16.7 -18.7GHz & 26.5 GHz to 28.5 GHz
Polarization: Circular RHCP and LHCP
Return loss: ≤15 dB
Gain: 7 to 10 dBi
Connector: waveguide WR42&WR28
Tx and Rx isolation : 40dB
Insersion loss: 1dB

Mechanical Specifications

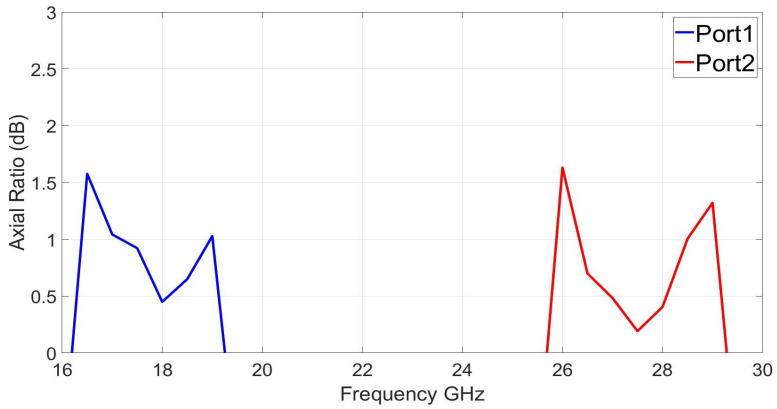
Material : Aluminium
Finish: Alodine
Weight : 2 lb (920 g)
Dimensions: 258 mm × 54 mm × 25 mm

Contact information: For technical support
Email: info@gigawavesystem.com

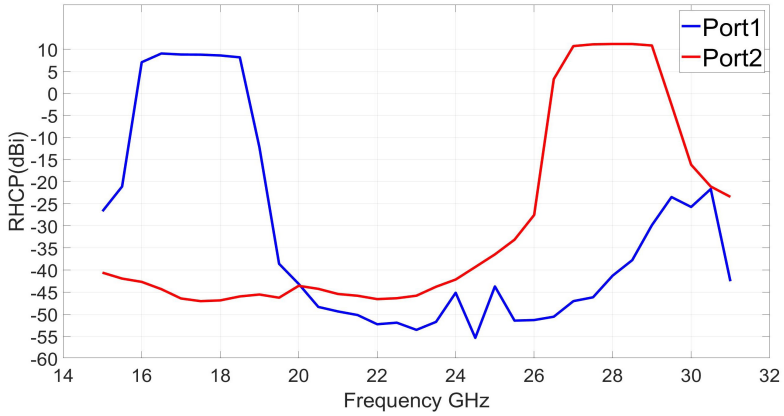
Maximum antenna gain vs Frequency



AR vs Frequency



Return loss & Isolation vs Frequency



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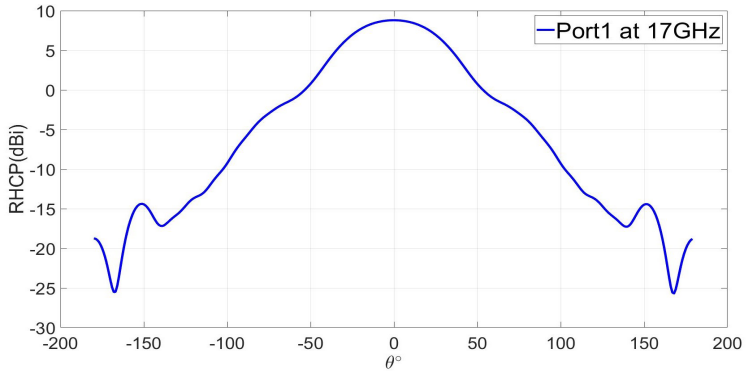
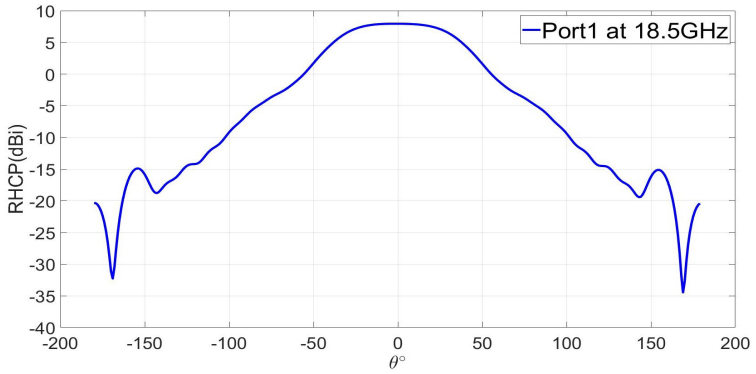
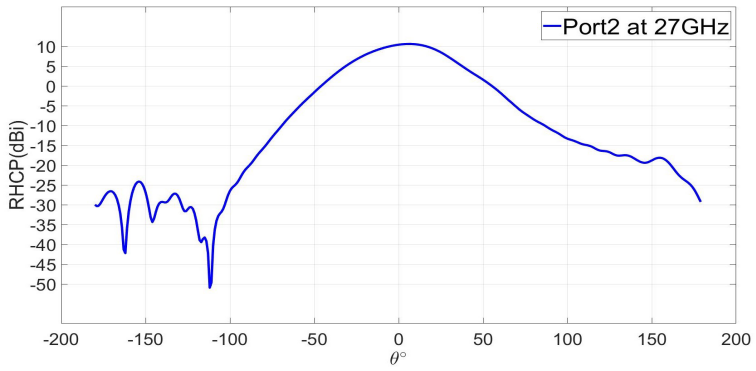
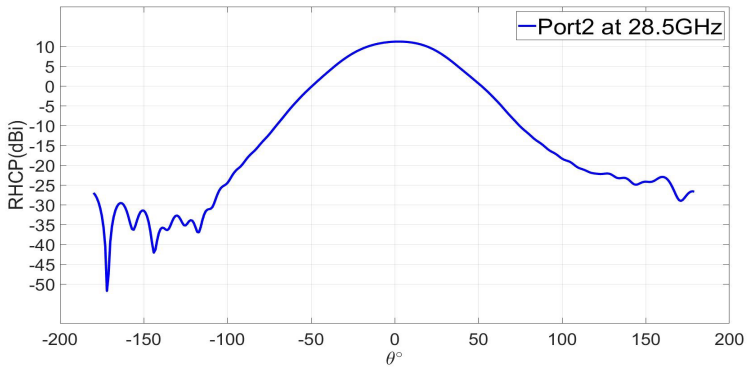
Antenna Radiation measured pattern in the whole frequency range









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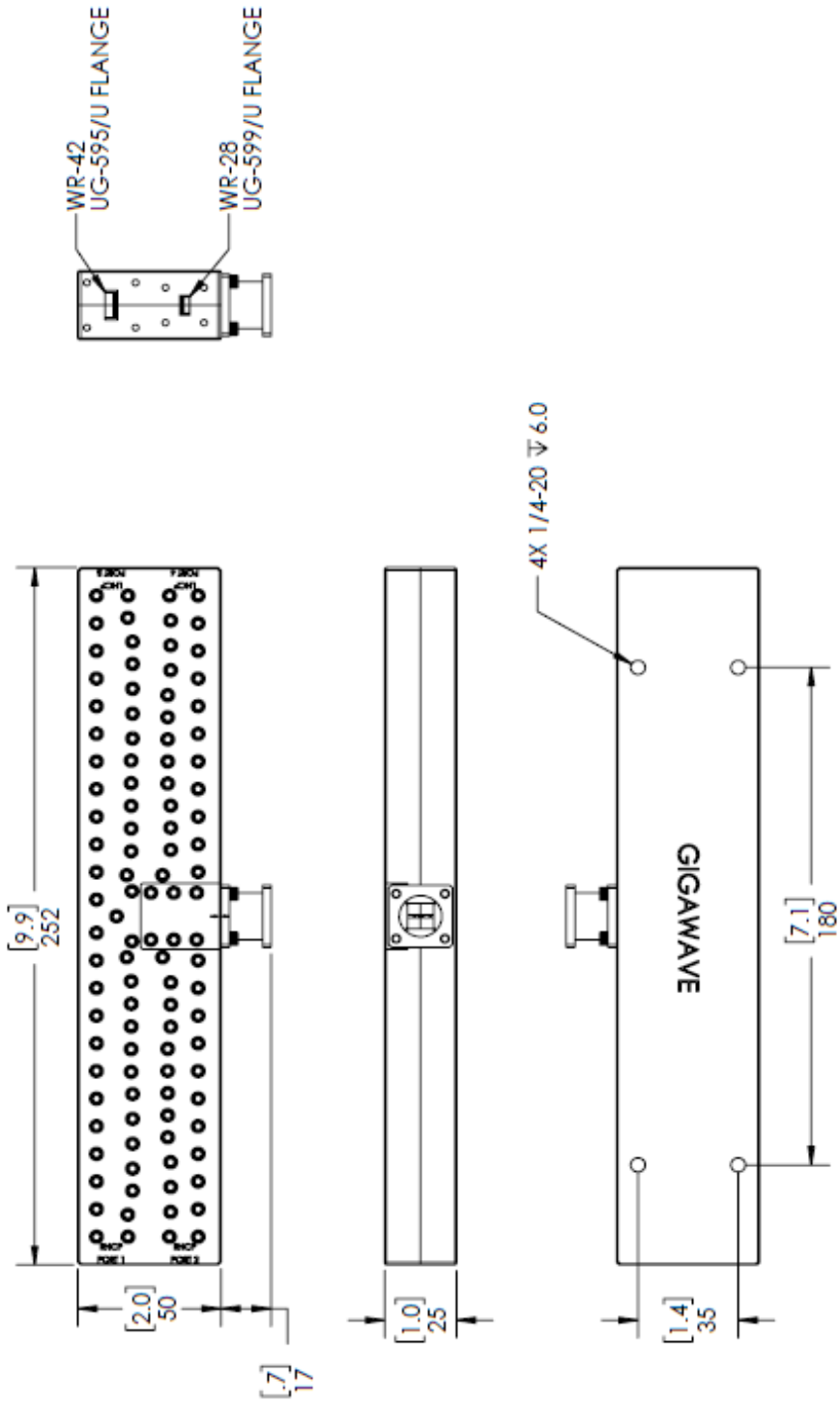

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