



Features

- WM-2032 (WR8) to WM-250 (WR1.0)
- Smallest aperture size 250 μm x 125 μm
- IEEE std 1785 to Class 1.0
- Seamless construction

Flann are proud to announce a new range of seamless precision waveguide operating up to 1 THz.

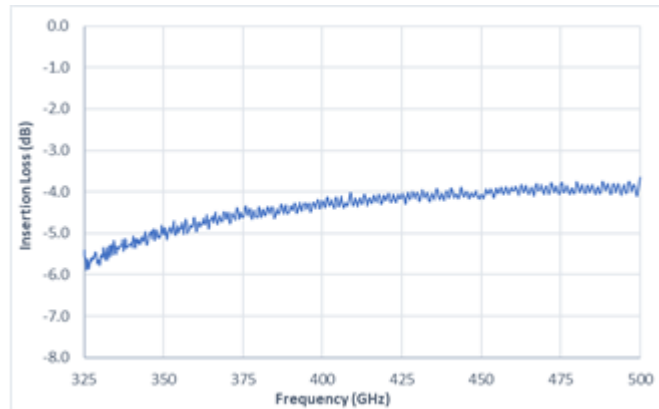
Standard seamless waveguide is not commercially available above 220 GHz resulting in the necessity to machine waveguide instruments and assemblies. While this is suitable in some instances, the higher mass and bulk of the instrument can cause difficulties in critical scenarios where lower mass or a more complex waveguide structure is required.

Our bespoke process allows the seamless waveguide to be manufactured up to a length of 400 mm in a choice of thin or ultra-thin wall thickness. Available materials are copper or nickel with an internal surface finish $<0.2\mu\text{m Ra}$.

Suitable for many waveguide applications which require straights, bends, twists, or custom built assemblies comprising of a combination of these.

RF performance matches or exceeds that of commercially available standard waveguide where available and is comparable to that of precision machined waveguide of split-block construction.

This capability allows the potential to create custom instruments, reducing the number of mating interfaces and resulting in further improvement to RF performance in comparison to COTS (commercial off the shelf) solutions. When combined with HRC-mini style flanges, its low mass enables the perfect alternative to machined waveguide for use in weight critical applications.



Applications

- 6G systems
- Astronomical research
- Terahertz imaging
- Characterisation of materials
- Test and Measurement

Related Products

- Series 246 - Near Field Probe
- Series 441 - Waveguide Straight, Flange to Flange Adapter
- Series 450 - Waveguide Twist
- Series 460/470 - Waveguide Bend, E & H-Plane
- Series 480 - Waveguide Assembly

FLANN MICROWAVE LTD.

Dunmere Road
Bodmin
Cornwall
PL31 2QL
Tel: +44 (0)1208 77777
Fax: +44 (0)1208 76426

sales@flann.com
www.flann.com

FLANN MICROWAVE INC.

One Boston Place
Suite 2600
Boston
MA 02108-4407
Tel: +617 621 7034
Fax: +617 577 8234



FLANN MICROWAVE

Sub-Millimetre Seamless Waveguide

WG	R	WR	Frequency (GHz)	Aperture dimensions (mm)	Insertion Loss per 100 mm (dB)
28	1200	8	90 - 140	2.032 x 1.016	0.8
29	1400	6	110 - 173	1.651 x 0.826	1.15
30	1800	5	140 - 220	1.295 x 0.648	1.7
31	2200	4	170 - 261	1.100 x 0.550	2.2
32	2600	3	217 - 330	0.870 x 0.440	3.1
WM710		2.8	260 - 400	0.710 x 0.355	4.4
WM570		2.2	330 - 500	0.570 x 0.285	6.1
WM470		1.9	400 - 600	0.470 x 0.235	8.3
WM380		1.5	500 - 750	0.380 x 0.190	11.5
WM310		1.2	600 - 900	0.310 x 0.155	16.6
WM250		1.0	750 - 1100	0.250 x 0.125	23.0

Custom Design

Custom built instruments can be supplied; please contact the sales team for more information

sales@flann.com

FLANN MICROWAVE LTD.

Dunmere Road
Bodmin
Cornwall
PL31 2QL
Tel: +44 (0)1208 77777
Fax: +44 (0)1208 76426

sales@flann.com
www.flann.com

FLANN MICROWAVE INC.

One Boston Place
Suite 2600
Boston
MA 02108-4407
Tel: +617 621 7034
Fax: +617 577 8234