Antenna Feed Assemblies

Rectangular Horn Assemblies, Circular Scalar, Feeds, Square Section, Slotted Array

One of A1 Microwave’s Waveguide Division specialities is to build difficult and complex Antenna and Feed Assemblies

These are often for operation in harsh environments.

Currently we have assemblies in continuous daily operation in climates that range from very hot / humid / salt laden air to arctic cold.

The next system building block behind a good antenna is often a network of switchable and combinable channels that route the microwave energy.

The network shown in the photographs works in ‘S’ Band and ‘X’ Band and has four integral antennas.
This is a very complicated Waveguide Assembly using numerous ‘E’ and ‘H’ Bends, Tees and OMTs in WG 10 ( WR 284 ) and WG 16 ( WR 90 ).

With a network like this you are able to select to Transmit or Receive whatever Polarisation state you want, giving greatly enhanced system performance.
Antenna Feed Assemblies

These are examples of A1 Microwaves Waveguide Division expertise. They show complex antenna and feed networks through various production stages to the final assembly.

Military Airport Radar
WG 10 Waveguide Feed Assembly

Commercial Airport Radar
WG 10 Waveguide Feed Assembly

Assorted antenna feed horns

WG 16 Radar Feed

6 metre long WG 16 Waveguide Feed

A1 Microwave, Waveguide Division
Precision waveguide components. Build to print manufacturing
A1 Microwave, is internationally recognised for innovative design and manufacturing procedures. The Company acquired JMD Technologies in 2010 which had an established credibility in Precision Waveguide Component and Sub-Assembly production - WG 6 (WR 650) to WG 22 (WR 28), and has been manufacturing since 1990.

We supply specialist, non-standard items to the Defence, Aerospace, Marine, Satellite Communications, Commercial and High Power segments of the Markets.

Our Expertise covers 'Build to Print' from customers drawings through Design, Manufacture & Test up to 50 GHz.

Our Designs are appropriate to the clients individual specification.

Production is in a tightly controlled environment, utilising the latest CNC Milling and Turning facilities, Bending, Brazing and Assembly.

A1 Microwave have invested in our Quality Control Systems, equipment and procedures so as to meet the most rigorous of customer requirements, as part of this process we operate an ISO 9001:2000 Certified QA system.

We are always pleased to advise on and discuss your requirements.

Our expertise includes brazing of Aluminium and Copper based Alloys, which allow complex components and sub-assemblies to be produced to exceptionally high standards.

Using the latest in CNC Machines, of which the majority have four axis capability, A1 Microwave's Waveguide Division possesses a sophisticated and flexible facility, which is able to address the most complex, high tolerance components, manufactured to the finest tolerances.

A1 Microwave Ltd is a forward looking company with an active development programme and proven track record in product excellence. We are committed to producing a specific response to your requirements and look forward to hearing from you.

Our Brazing department has been established to meet BS1723 and MIL-B-7883 standards, thereby allowing the most demanding requirements to be fulfilled.

Our CNC milling and Turning facilities are capable of producing complex, high tolerance components which when combined with our precision Waveguide Bending capability offer a versatile and sophisticated manufacturing facility.

A1 Microwave, Waveguide Division
Precision waveguide components.  Build to print manufacturing