

Rectangular Waveguide 90° Formed Bends FBH90 Series & FBE90 Series



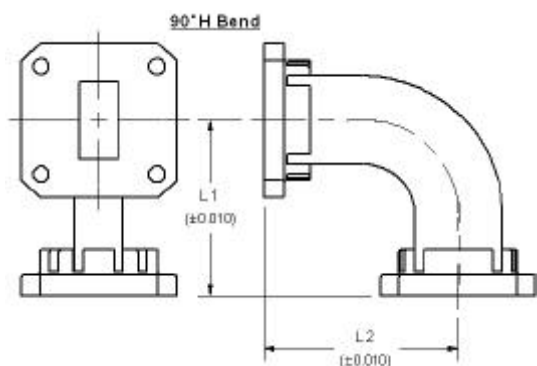
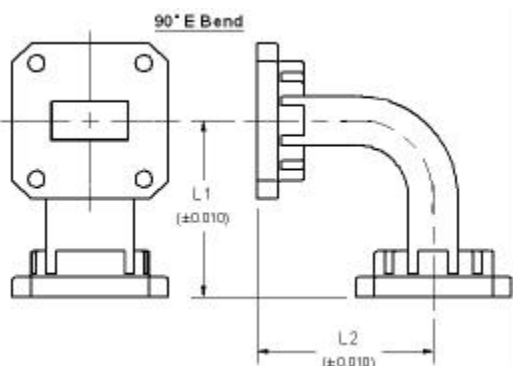
Waveguide 90° Formed Bends

ALLEN AVIONICS offers a standard (FBH90 & FBE90 SERIES) product line of WAVEGUIDE E-PLANE & H-PLANE FORMED BENDS covering the entire frequency range for different waveguide sizes from WR-650 to WR-42. These waveguide assemblies are offered with any combination of flanges as per specifications. These units have a typical VSWR of 1.08:1 max. They are widely used in commercial applications.

Allen Avionics Waveguide 90° Formed Bends are normally constructed using Rectangular Copper Waveguide, but Brass and Aluminum are also available.

| WAVEGUIDE SIZE | FREQUENCY RANGE (GHz) | MODEL # (E-Plane) | DIMENSIONS* (in) | | MODEL # (H-Plane) | DIMENSIONS* (in) | |
|----------------|-----------------------|---------------------|------------------|------|---------------------|------------------|------|
| | | | L1 | L2 | | L1 | L2 |
| WR-650 | 1.12 – 1.70 | FBE90 / WR650 / ... | 10.0 | 10.0 | FBH90 / WR650 / ... | 12.0 | 12.0 |
| WR-430 | 1.70 – 2.60 | FBE90 / WR430 / ... | 8.00 | 8.00 | FBH90 / WR430 / ... | 10.0 | 10.0 |
| WR-340 | 2.20 – 3.30 | FBE90 / WR340 / ... | 8.00 | 8.00 | FBH90 / WR340 / ... | 10.0 | 10.0 |
| WR-284 | 2.60 – 3.95 | FBE90 / WR284 / ... | 6.00 | 6.00 | FBH90 / WR284 / ... | 6.00 | 6.00 |
| WR-229 | 3.30 – 4.90 | FBE90 / WR229 / ... | 4.00 | 4.00 | FBH90 / WR229 / ... | 4.00 | 4.00 |
| WR-187 | 3.95 – 5.85 | FBE90 / WR187 / ... | 3.00 | 3.00 | FBH90 / WR187 / ... | 3.00 | 3.00 |
| WR-159 | 4.90 – 7.05 | FBE90 / WR159 / ... | 2.50 | 2.50 | FBH90 / WR159 / ... | 2.50 | 2.50 |
| WR-137 | 5.85 – 8.20 | FBE90 / WR137 / ... | 2.50 | 2.50 | FBH90 / WR137 / ... | 2.50 | 2.50 |
| WR-112 | 7.05 – 10.0 | FBE90 / WR112 / ... | 2.00 | 2.00 | FBH90 / WR112 / ... | 2.00 | 2.00 |
| WR-102 | 7.00 – 11.0 | FBE90 / WR102 / ... | 2.00 | 2.00 | FBH90 / WR102 / ... | 2.00 | 2.00 |
| WR-90 | 8.20 – 12.4 | FBE90 / WR90 / ... | 2.00 | 2.00 | FBH90 / WR90 / ... | 2.00 | 2.00 |
| WR-75 | 10.0 – 15.0 | FBE90 / WR75 / ... | 1.75 | 1.75 | FBH90 / WR75 / ... | 1.75 | 1.75 |
| WR-62 | 12.4 – 18.0 | FBE90 / WR62 / ... | 1.75 | 1.75 | FBH90 / WR62 / ... | 1.75 | 1.75 |
| WR-51 | 15.0 – 22.0 | FBE90 / WR51 / ... | 1.50 | 1.50 | FBH90 / WR51 / ... | 1.50 | 1.50 |
| WR-42 | 18.0 – 26.5 | FBE90 / WR42 / ... | 1.00 | 1.00 | FBH90 / WR42 / ... | 1.00 | 1.00 |

* Standard Values Listed. Other Dimensions for L1 and L2 can be offered on request. Please see the MODEL DESIGNATION table for more information.



MODEL DESIGNATION

| Code | Description |
|------|-------------|
|------|-------------|

| | |
|---|---|
| 1 | Series (FBE90 or FBH90) |
| 2 | Waveguide Size |
| 3 | Length, (L1/L2) (in.) |
| 4 | Flange Code (Input/Output) (see chart) |
| 5 | Material (AL) (BR) |

SAMPLE

| 1 | 2 | 3 | 4 | 5 |
|--------|-------|------------|--------|----|
| FBH90/ | WR75/ | 1.75/1.75/ | CF/FS/ | AL |

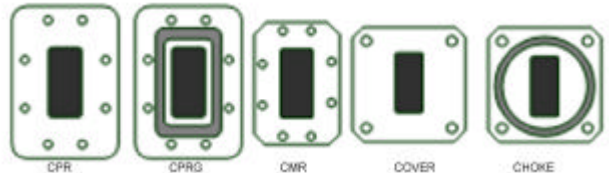
COMPLETE PN=
FBH90/WR75/1.75/1.75/CF/FS/AL

Contact Factory With Your Specific Needs For:

- Electrical Performance
- Mechanical Configuration
- Insertion Loss

FLANGE CODE CHART

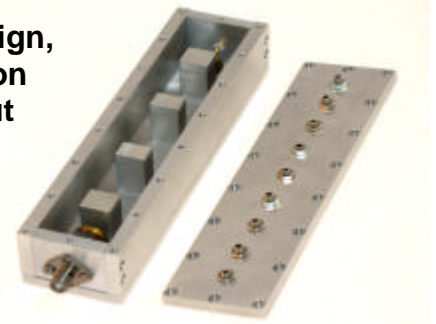
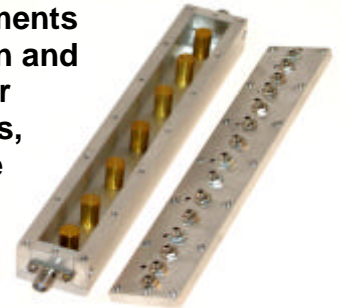
| Flange Style | Connector Code |
|--------------|----------------|
| CPR Flange | CPR |
| CPRG Flange | CPRG |
| CMR Flange | CMR |
| Cover Flange | CF |
| Choke Flange | CH |



ALLEN AVIONICS INC manufactures many other types of microwave Filters. Our engineers will help you pick the right filter to meet all the requirements you have for performance, size and cost. Our advanced simulation and modeling software will design and do optimization of Circular Post Coupled filters, Metal-Insert Filters, Iris Coupled Filters, Comblaine and Interdigital Filters. All of our Filters can be custom designed for your application and we offer fast prototypes. No need to wait five or six weeks to test your idea or check your system.



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