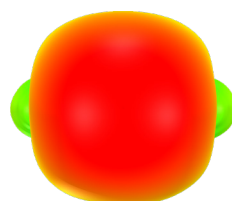




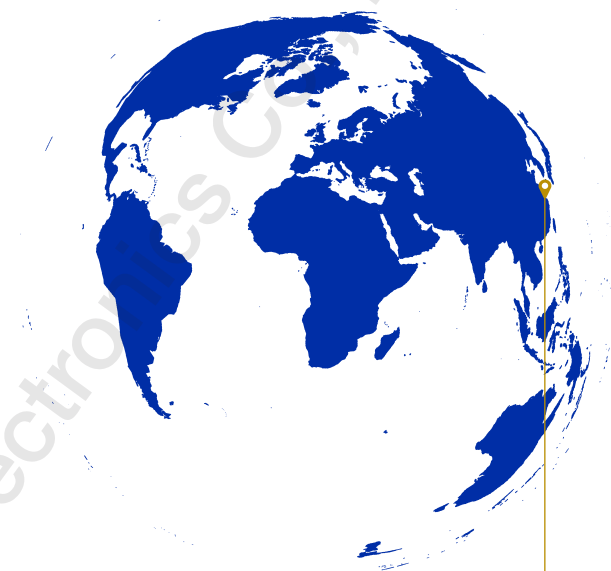
# Broadband Horn Antennas

1 - 18 GHz, 10 dBi

Radiation pattern



QR code



Hangzhou Multipath Electronics Co., Ltd., Zhejiang, China

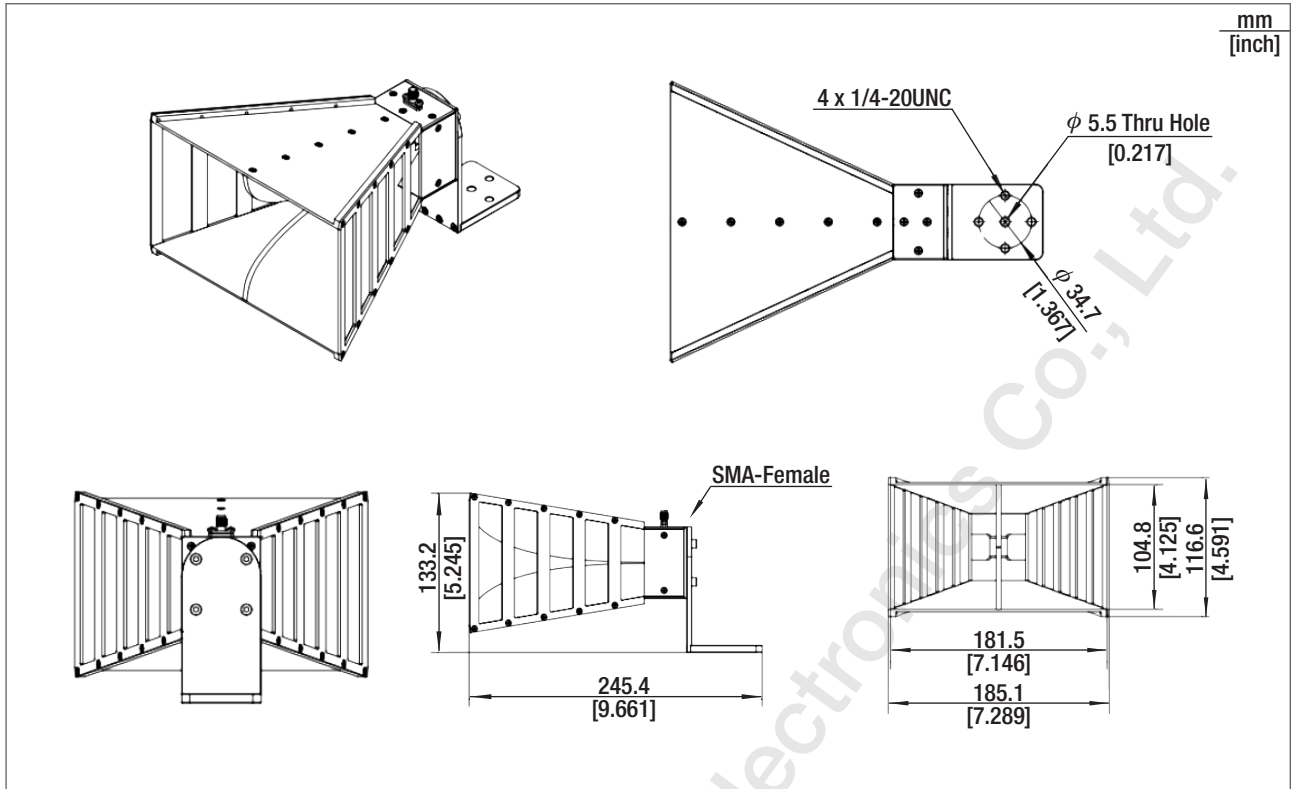
## ⚙️ Product specifications

|                                   |                                              |                                   |               |
|-----------------------------------|----------------------------------------------|-----------------------------------|---------------|
| Part number                       | BSHA-118-10                                  | Polarization                      | Single Linear |
| Antenna type                      | Double-ridge horn                            | Gain [dBi]                        | 10 Typ.       |
| Frequency range [GHz]             | 1 - 18                                       | Cross-polarization isolation [dB] | 30 Typ.       |
| Dimensions (H x W x L) [mm; inch] | 174.9 x 185.9 x 108.8;<br>6.89 x 7.32 x 4.28 | VSWR                              | 1.50 Typ.     |
| Weight (approx.) [kg; lb]         | 0.61; 1.345                                  | Impedance [Ohms]                  | 50            |
| Material                          | Aluminum                                     | RF connector                      | SMA-Female    |

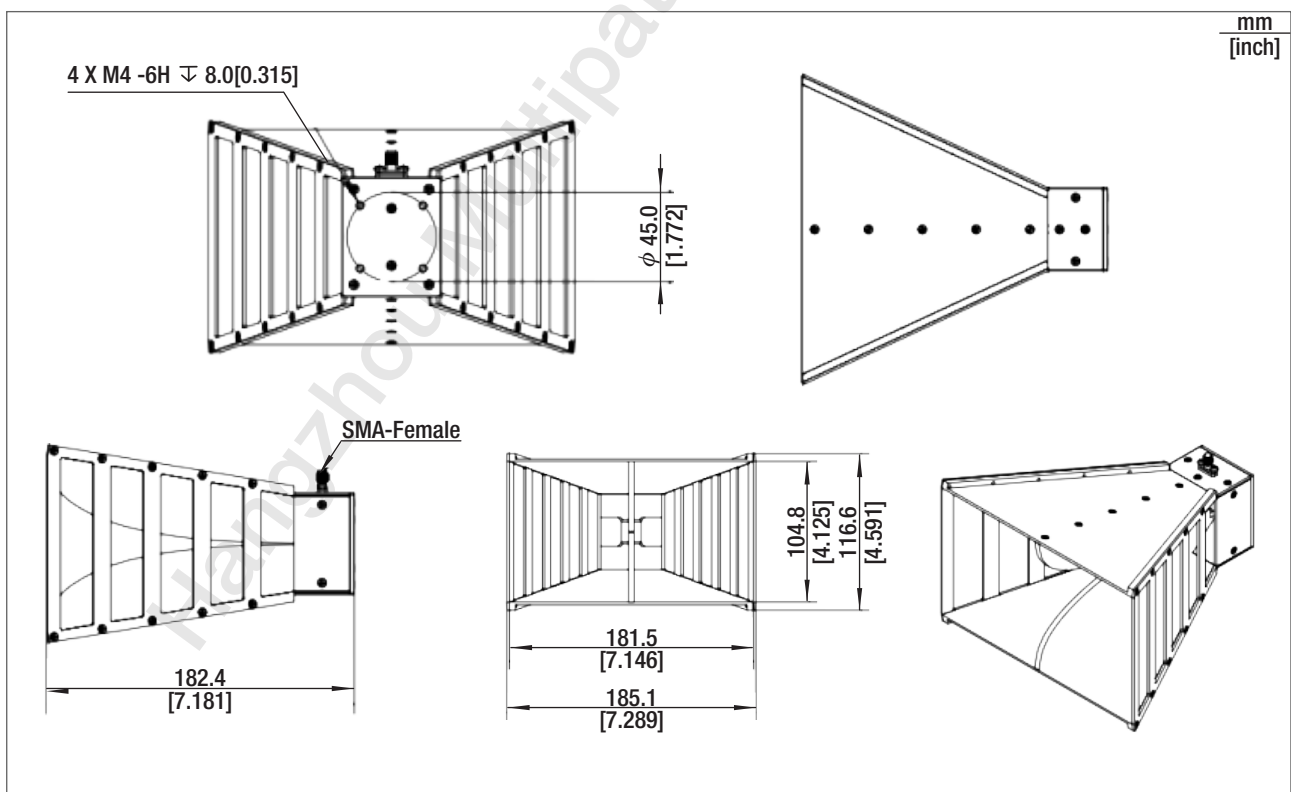
## Outline dimensions

Multipath Electronics provides complete broadband horn antenna, forming mounting systems, integrated with waveguide to coaxial adapters, L type mounting brackets.

### • Assembly dimensional drawing

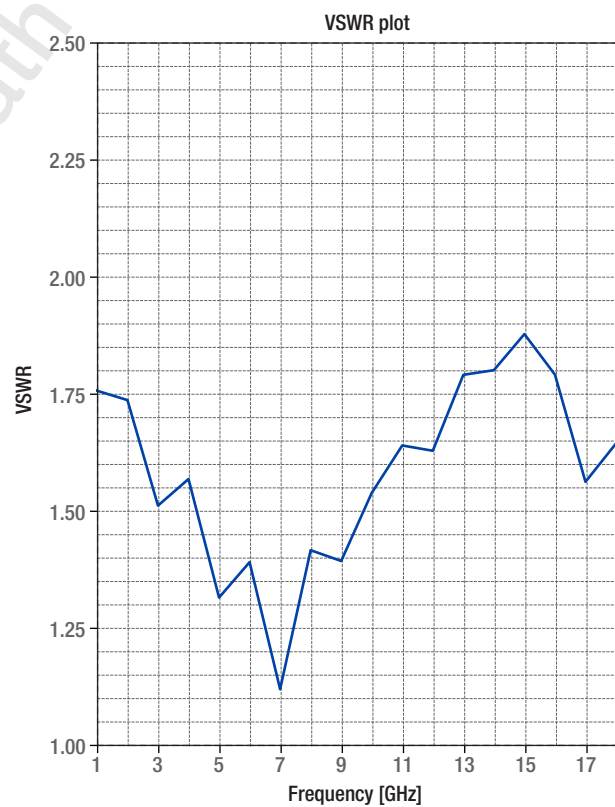
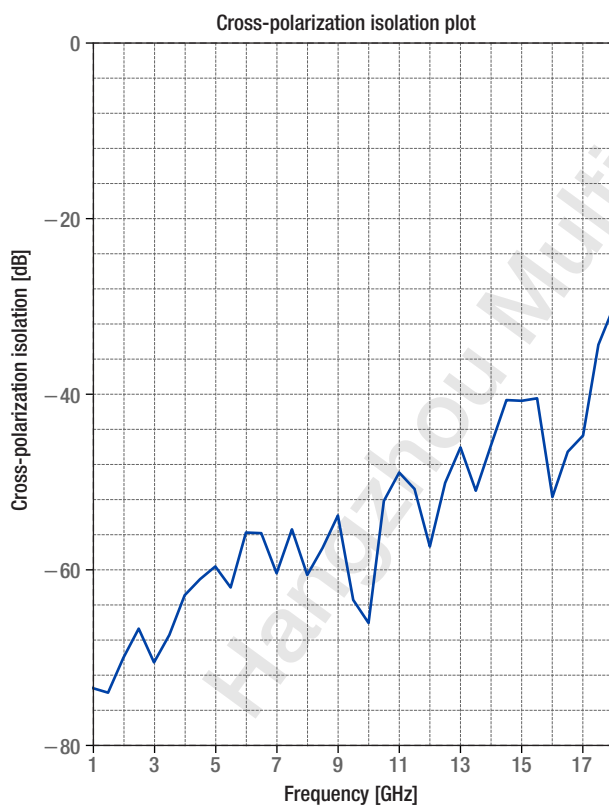
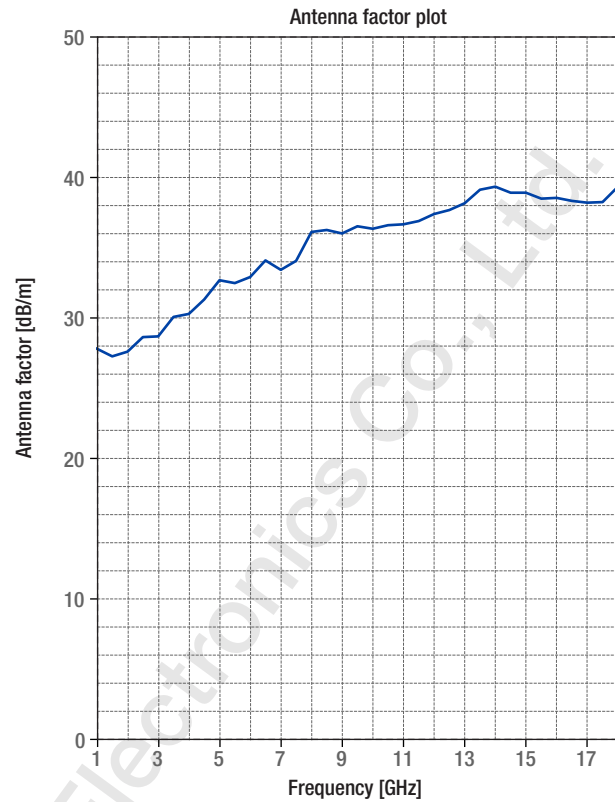
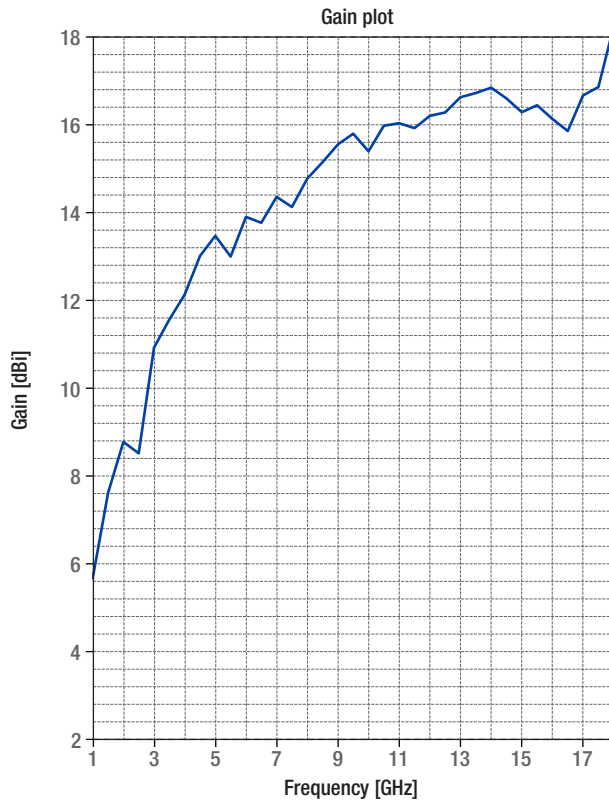


### • Dimensional drawing



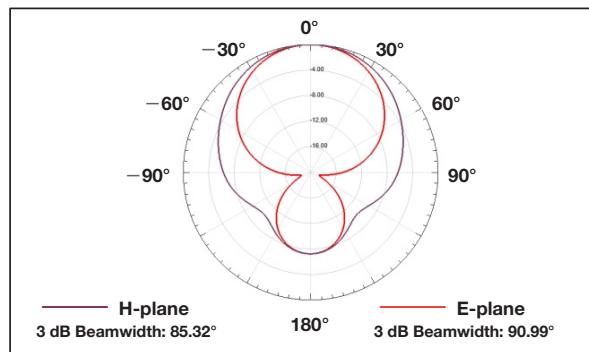
## Electrical characteristics

### • Gain & VSWR & Cross-polarization isolation & Antenna factor

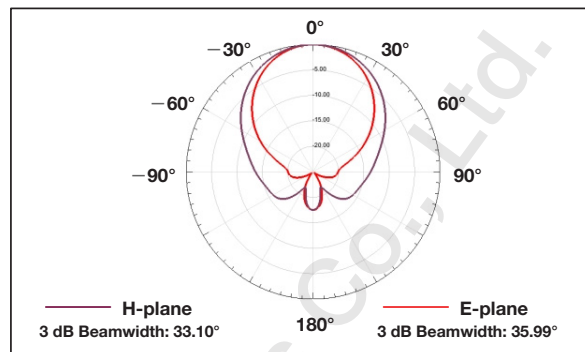


- Radiation patterns

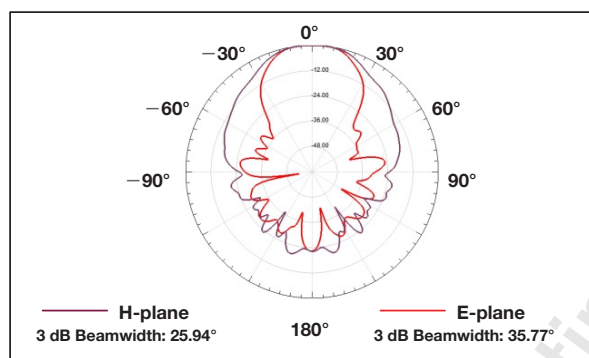
Frequency: 1.0 GHz



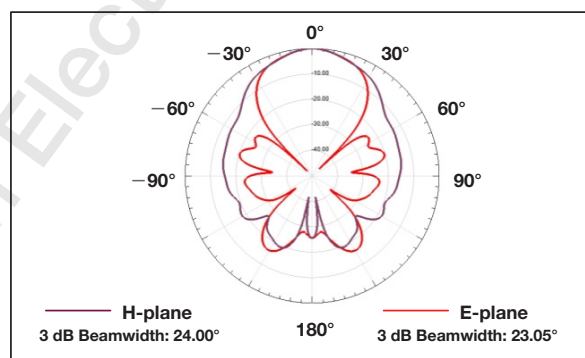
Frequency: 2.0 GHz



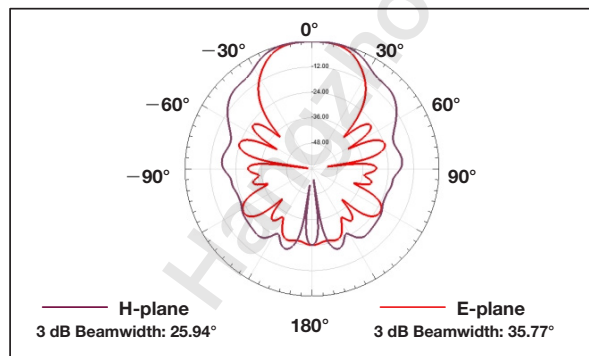
Frequency: 4.0 GHz



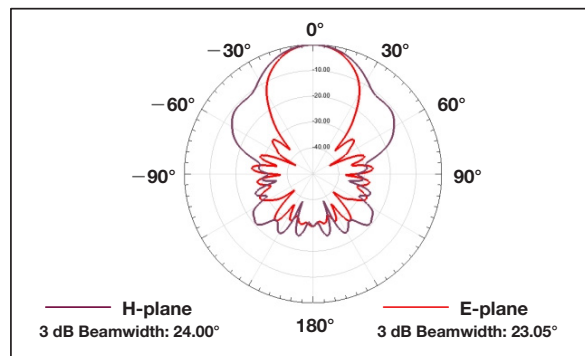
Frequency: 6.0 GHz



Frequency: 8.0 GHz



Frequency: 10.0 GHz



## • Data table

| Frequency [GHz] | Gain [dBi] | Antenna factor [dB/m] | Cross-polarization isolation [dB] | VSWR |
|-----------------|------------|-----------------------|-----------------------------------|------|
| 1               | 2.50       | 27.69                 | -73.37                            | 1.75 |
| 2               | 8.72       | 27.49                 | -69.91                            | 1.73 |
| 3               | 11.16      | 28.58                 | -70.43                            | 1.51 |
| 4               | 12.05      | 30.18                 | -62.77                            | 1.57 |
| 5               | 11.58      | 32.59                 | -59.48                            | 1.31 |
| 6               | 12.94      | 32.81                 | -55.60                            | 1.39 |
| 7               | 13.77      | 33.33                 | -60.26                            | 1.12 |
| 8               | 12.22      | 36.03                 | -60.45                            | 1.41 |
| 9               | 13.35      | 35.92                 | -53.66                            | 1.39 |
| 10              | 13.93      | 36.26                 | -65.93                            | 1.54 |
| 11              | 14.44      | 36.58                 | -48.75                            | 1.64 |
| 12              | 14.46      | 37.31                 | -57.20                            | 1.63 |
| 13              | 14.39      | 38.08                 | -45.88                            | 1.79 |
| 14              | 13.85      | 39.26                 | -45.60                            | 1.80 |
| 15              | 14.88      | 38.83                 | -40.56                            | 1.88 |
| 16              | 15.81      | 38.46                 | -51.54                            | 1.79 |
| 17              | 16.68      | 38.12                 | -44.52                            | 1.56 |
| 18              | 16.04      | 39.26                 | -29.83                            | 1.64 |

| Frequency [GHz] | E-plane, 3dB beamwidth | H-plane, 3dB beamwidth |
|-----------------|------------------------|------------------------|
| 1               | 78°                    | 106°                   |
| 2               | 55°                    | 66°                    |
| 4               | 31°                    | 39°                    |
| 6               | 37°                    | 39°                    |
| 8               | 39°                    | 51°                    |
| 10              | 29°                    | 36°                    |



**Multipath Electronics**

## Contact

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Technical specifications in this datasheet are subject to change without notice.  
Actual products may differ from the shown images.