

## 10 dBi WR-159 Standard Gain Horn Radome Cover

FMWGCOV159-10 is a radome cover for 10 dBi WR-159 Standard Gain Horn antenna. This waveguide antenna radome cover is made from high strength, thermally stable Polymethacrylimide (PMI). PMI offers a low Relative Permittivity (Dielectric Constant) at the high frequency ranges seen with microwave and millimeter wave components. This allows for minimal signal loss or attenuation over other materials.

Increase your system capabilities with our PMI radome covers, designed to enhance the durability and longevity of standard gain horn antennas. Shielding against environmental elements, our radome covers ensure consistent signal integrity in any conditions. FMWGCOV159-10 has internal dimensions of 2.55 in by 2.1 in and will fit 10 dBi WR-159 standard gain horns. Fairview Microwave offers a wide selection of high performance waveguide components available in stock and same-day shipping to customers worldwide.

### Mechanical Specifications

|               |                          |
|---------------|--------------------------|
| Body Material | Polymethacrylimide (PMI) |
| Length        | 2.752 in [69.9 mm]       |
| Width         | 2.271 in [57.68 mm]      |
| Height        | 0.236 in [5.99 mm]       |
| Weight        | 0.045 lbs [20.41 g]      |

### Mechanical Performance

| Typical Density (kg/m <sup>3</sup> ) | Compressive Strength MPa | Compression Modulus (MPa) | Tensile Strength (MPa) | Tensile Modulus (MPa) | Fracture Growth Rate(%) | Bending Strength (MPa) | Bending Modulus (MPa) | Deflection (MPa) |
|--------------------------------------|--------------------------|---------------------------|------------------------|-----------------------|-------------------------|------------------------|-----------------------|------------------|
| 200                                  | 8.5                      | 317                       | 7.5                    | 410                   | 2.4                     | 13                     | 449                   | 22               |
| Standard Test                        | GB/T 8813-2008           |                           | GB/T9641-1988          |                       |                         | GB/T 8812.2-2007       |                       |                  |

### Electrical Performance

|                                      | Frequency |      |     |      |      |      |      |            |
|--------------------------------------|-----------|------|-----|------|------|------|------|------------|
| Antenna Radome Material              | 2         | 2.5  | 2.8 | 5    | 10   | 26   | 26.5 | Tolerance  |
| $\epsilon_r$ (Relative Permittivity) | 1.08      | 1.09 | /   | 1.14 | 1.14 | 1.14 | 1.12 | $\pm 0.01$ |

#### Remarks:

- Test method: GB/T - 5597 - 1999 "Test Method for Microwave Complex Permittivity of Solid Dielectric".
- Sample size: diameter 51mm, thickness 5mm.
- Sampling rate and data processing: 5 samples were tested for each material, each sample was tested on both sides, and a total of 80 samples were obtained for each material. data points, and take the average to obtain the final data.



### Features:

- 10 dBi WR-159 Waveguide Standard Gain Horn
- Polymethacrylimide
- Low Relative Permittivity (Dielectric Constant)
- Minimal reflection or attenuation of signal

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**Compliance Certifications** (see [product page](#) for current document)

10 dBi WR-159 Standard Gain Horn Radome Cover from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [10 dBi WR-159 Standard Gain Horn Radome Cover FMWGCov159-10](#)

URL: <https://www.fairviewmicrowave.com/10-dbi-wr-159-standard-gain-horn-radome-cover-fmwgcov159-10-p.aspx>

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