

EWP90S, HELIAX® Super Premium Elliptical Waveguide, 10.7–11.7 GHz, unjacketed

Product Classification

| | |
|---------------------|----------------------|
| Brand | HELIAX® |
| Product Type | Elliptical waveguide |

Construction Materials

| | |
|---------------------------|-------------------|
| Jacket Material | Unjacketed |
| Conductor Material | Corrugated copper |

Dimensions

| | |
|---------------------------------------|---------------------------------------|
| Cable Volume | 334.0 L/km 3.6 ft ³ /kft |
| Cable Weight | 0.48 kg/m 0.32 lb/ft |
| Diameter Over Jacket (E Plane) | 33.50 mm 1.32 in |
| Diameter Over Jacket (H Plane) | 20.30 mm 0.80 in |

Electrical Specifications

| | |
|---------------------------------|---|
| Operating Frequency Band | 10.7 – 11.7 GHz |
| eTE11 Mode Cutoff | 6.500 GHz |
| Group Delay | 125 ns/100 ft @ 11.200 GHz 410 ns/100 m @ 11.200 GHz |

Environmental Specifications

| | |
|---------------------------------|--------------------------------------|
| Installation Temperature | -40 °C to +60 °C (-40 °F to +140 °F) |
| Operating Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Storage Temperature | -70 °C to +85 °C (-94 °F to +185 °F) |

Mechanical Specifications

| | |
|--|----------------------|
| Maximum Twist | 6.00 °/m 2.00 °/ft |
| Minimum Bend Radius, Multiple Bends (E Plane) | 180.00 mm 7.00 in |
| Minimum Bend Radius, Multiple Bends (H Plane) | 480.00 mm 19.00 in |
| Minimum Bend Radius, Single Bend (E Plane) | 150.00 mm 6.00 in |
| Minimum Bend Radius, Single Bend (H Plane) | 330.00 mm 13.00 in |

Note

| | |
|-------------------------|---|
| Performance Note | Values typical, unless otherwise stated |
|-------------------------|---|

Standard Conditions

| | |
|---|----------------|
| Attenuation, Ambient Temperature | 24 °C 75 °F |
| Average Power, Ambient Temperature | 40 °C 104 °F |
| Average Power, Temperature Rise | 42 °C 76 °F |

Return Loss/VSWR

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 10.7–11.7 GHz | 1.05 | 32.30 |

* VSWR/Return Loss indicated is for lengths up to 300 ft (91.4 m)

* VSWR/Return Loss is guaranteed for factory-fit and typical for field-fit assemblies

* Custom length performance: Call 828-324-2200 or 1-800-982-1708 (toll free), or your local CommScope representative

Attenuation

| Frequency (GHz) | Attenuation (dB/100 ft) | Attenuation (dB/100 m) | Average Power (kW) | Group Velocity % |
|-----------------|-------------------------|------------------------|--------------------|------------------|
| 10.7 | 3.143 | 10.311 | 1.559 | 79.4 |
| 10.9 | 3.108 | 10.198 | 1.576 | 80.3 |
| 11.1 | 3.077 | 10.096 | 1.592 | 81.1 |
| 11.3 | 3.049 | 10.004 | 1.606 | 81.8 |
| 11.5 | 3.024 | 9.92 | 1.62 | 82.5 |
| 11.7 | 3 | 9.843 | 1.633 | 83.1 |

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU
 ISO 9001:2015
 China RoHS SJ/T 11364-2014

Classification

Compliant
 Designed, manufactured and/or distributed under this quality management system
 Above Maximum Concentration Value (MCV)

