

222040-10

EW20, HELIAX® Standard Elliptical Waveguide, 2.3–2.4 GHz, unjacketed

OBSOLETE

Product Classification

| | |
|-----------------------|-------------------------------|
| Product Type | Standard elliptical waveguide |
| Product Brand | HELIAX® |
| Product Series | Standard |

General Specifications

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

Dimensions

| | |
|---------------------------------------|----------------------------|
| Diameter Over Jacket (E Plane) | 127.5 mm 5.02 in |
| Diameter Over Jacket (H Plane) | 71.9 mm 2.831 in |
| Cable Volume | 5621 L/km 60.504 ft³/kft |

Electrical Specifications

| | |
|---------------------------------|--|
| eTE11 Mode Cutoff | 1.57 GHz |
| Group Delay at Frequency | 128 ns/100 ft @ 2.600 GHz 418 ns/100 m @ 2.600 GHz |
| Operating Frequency Band | 2.3 – 2.4 GHz |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 2.3–2.4 GHz | 1.15 | 23.13 |

Attenuation

| Frequency (GHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Average Power (kW) | Group Velocity % |
|-----------------|------------------------|-------------------------|--------------------|------------------|
| 2.3 | 1.534 | 0.468 | 31.501 | 73.1 |
| 2.4 | 1.484 | 0.452 | 32.559 | 75.6 |

Material Specifications

| | |
|---------------------------|-------------------|
| Conductor Material | Corrugated copper |
|---------------------------|-------------------|

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Jacket Material Unjacketed

Mechanical Specifications

Minimum Bend Radius, Multiple Bends (E Plane) 660 mm | 25.984 in
Minimum Bend Radius, Multiple Bends (H Plane) 1800 mm | 70.866 in
Minimum Bend Radius, Single Bend (E Plane) 460 mm | 18.11 in
Minimum Bend Radius, Single Bend (H Plane) 1270 mm | 50 in
Maximum Twist 0.098 °/m | 0.03 °/ft

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)
Attenuation, Ambient Temperature 75 °F | 23.889 °C
Average Power, Ambient Temperature 104 °F | 40 °C
Average Power, Temperature Rise 42 °C | 107.6 °F

Packaging and Weights

Cable weight 2.76 kg/m | 1.855 lb/ft

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |