



DATA SHEET

Elliptical Waveguide

Kabelwerk

EUPEN AG

Rev.: 03/2007-05-24

cable

EU 63

CHARACTERISTICS

Construction

- **Construction**
 - Description **Elliptical corrugated copper tube**
- **Jacket**
 - Material **UV resistant, black polyethylene**
 - Thickness, *mm (in)* **1.8 (0.07)**
- **Dimensions**
 - Outer dimensions, *mm (in)* **51.5 x 30.6 (2.03 x 1.20)**

Mechanical characteristics

- **Minimum bending radius, without rebending**
 - E plane, *mm (in)* **200 (7.9)**
 - H plane, *mm (in)* **500 (19.7)**
- **Minimum bending radius, with rebending**
 - E plane, *mm (in)* **300 (11.8)**
 - H plane, *mm (in)* **700 (27.6)**
- **Min. drum core diameter, *mm (in)*** **1200 (47)**
- **Maximum operating pressure, *bar (psi)*** **0.5 (7.3)**
- **Max. pulling length per hoisting grip, *m (ft)*** **60 (197)**
- **Recommended temperature range**
 - Installation, °C (°F) **-20 to +60 (-4 to +140)**
 - Operation, °C (°F) **-40 to +80 (-40 to +176)**
- **Weight, *kg/m (lb/ft)*** **0.84 (0.56)**

Electrical characteristics

- **Frequency range, GHz** **5.70 - 7.75**
- **HEC11 Mode cutoff frequency, GHz** **4.2**
- **Attenuation, group velocity of propagation, power**

Frequency GHz	Attenuation ^[1] dB/100m (dB/100ft)	Group velocity %	Av. Power ^[2] kW
5.7	4.76 (1.45)	67.6	4.44
5.8	4.67 (1.42)	69.0	4.53
5.9	4.58 (1.40)	70.2	4.61
6.0	4.51 (1.37)	71.4	4.69
6.1	4.44 (1.35)	72.5	4.76
6.2	4.38 (1.33)	73.6	4.83
6.3	4.32 (1.32)	74.5	4.90
6.4	4.27 (1.30)	75.5	4.96
6.5	4.22 (1.29)	76.3	5.01
6.6	4.17 (1.27)	77.1	5.07
6.7	4.13 (1.26)	77.9	5.12
6.8	4.09 (1.25)	78.6	5.17
6.9	4.06 (1.24)	79.3	5.21
7.0	4.03 (1.23)	80.0	5.25
7.1	3.99 (1.22)	80.6	5.30
7.2	3.96 (1.21)	81.2	5.33
7.3	3.94 (1.20)	81.8	5.37
7.4	3.91 (1.19)	82.3	5.41
7.5	3.89 (1.18)	82.8	5.44
7.7	3.84 (1.17)	83.8	5.50
7.75	3.83 (1.17)	84.0	5.52

[1] Attenuation at 20°C (68°F)

[2] Average power ratings based on VSWR 1.0, 82°C (180 °F) inner temperature, 40°C (104 °F) ambient temperature.

