

## 1-1/4" Super Flexible Helical Corrugated Coax Cable

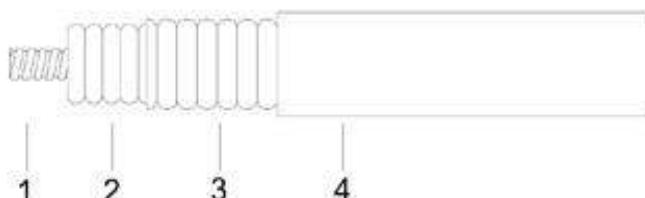
### HRCTY(Z)-50-33(1-1/4"S)

#### ► Overview

50 ohm RF cable with foam degree of about 80% of the ultra-high foam polyethylene, low attenuation, the temperature coefficient is small, the temperature changes have a good stability. It is mainly used as a low loss, low VSWR signal transmission line in wireless base stations such as mobile communication, antenna feeder, microwave transmission, broadcasting communication and other systems base stations, and the connection between receiver and antenna or other high frequency fields.



#### ► Construction



| Item              | Material                   | Diameter (mm) |
|-------------------|----------------------------|---------------|
| 1.Inner conductor | Helical Copper Tube        | 13.5          |
| 2.Dielectric      | Physical Foam Polyethylene | 33.0          |
| 3.Outer conductor | Helical Copper Tube        | 36.0          |
| 4.Jacket          | Black PE                   | 38.6          |

#### ► Electrical Characteristics

|  |       |
|--|-------|
| 1.Capacitance (pF/m)                           | 76    |
| 2.Impedance ( $\Omega$ )                       | 50    |
| 3.Velocity (%)                                 | 88    |
| 4.Peak Power Rating (kW)                       | 178   |
| 5.RF Peak Voltage (kV)                         | 4.2   |
| 6.Insulation Resistance ( $M\Omega \cdot km$ ) | >5000 |
| 7.Cut-off Frequency (GHz)                      | 3.4   |
| 8.Insulation Voltage (kVrms)                   | 10    |
| 9.Jacket Spark (kVrms)                         | 10    |
| 10.Shieldding Effectiveness (dB)               | >120  |

### ► Mechanical and Environmental Characteristics

|                                   |            |
|-----------------------------------|------------|
| Min. Single Bending Radius (mm)   | 150        |
| Min. Repeated Bending Radius (mm) | 300        |
| No. of Bends                      | 15         |
| Mobile Apply (mm)                 | 700        |
| Bending Moment (N.m)              | 38         |
| Tensile Strength (kg)             | 290        |
| Storage Temp (°C)                 | -55 to +85 |
| Installation Temp (°C)            | -40 to +60 |
| Operating Temp (°C)               | -55 to +85 |
| VSWR≤(Return loss≥dB)             |            |
| 0.005-3GHz                        | 1.15 (23)  |
| 0.8-1.0GHz                        | 1.10 (26)  |
| 1.7-2.0GHz                        | 1.10 (26)  |
| 2.0-2.4GHz                        | 1.10 (26)  |

### ► Attenuation (VSWR1.0, cable temp. 20°C) & Average Power (VSWR 1.0, ambient temp. 40°C)

| Frequency (MHz) | Attenuation (dB/100m) | Average Power (kW) |
|-----------------|-----------------------|--------------------|
| 100             | 0.88                  | 12.00              |
| 200             | 1.28                  | 8.26               |
| 450             | 2.00                  | 5.29               |
| 800             | 2.80                  | 3.81               |
| 900             | 2.95                  | 3.56               |
| 1000            | 3.15                  | 3.35               |
| 1500            | 4.00                  | 2.64               |
| 1800            | 4.50                  | 2.36               |
| 2000            | 4.75                  | 2.21               |
| 2200            | 5.05                  | 2.09               |
| 2400            | 5.35                  | 1.96               |
| 2500            | 5.50                  | 1.90               |
| 3000            | 6.15                  | 1.72               |