

# Technical Specification

## 7/8 " Flexible RF Coaxial Cable



jacket    outer conductor    insulation    inner conductor

| Type                        |               | Type No.               |
|-----------------------------|---------------|------------------------|
| Standard cable              |               | HCTAY-50-22            |
| Fire-retardant cable        |               | HCTAYZ-50-22           |
| Construction                |               |                        |
| Inner Conductor             | Material      | Smooth Copper Tube     |
|                             | Diameter (mm) | 9.0±0.10               |
|                             | Thickness(mm) | 0.28±0.001             |
| Dielectric                  | Material      | Foamed PE              |
|                             | Diameter (mm) | 22.70±0.20             |
| Outer Conductor             | Material      | Corrugated Copper tube |
|                             | Diameter(mm)  | 24.90±0.25             |
|                             | Thickness(mm) | 0.13±0.001             |
| Jacket                      | Material      | LDPE or FR- LSZH       |
|                             | Thickness(mm) | > 1.1                  |
|                             | Diameter(mm)  | 27.50±0.25             |
| Mechanical Characteristics  |               |                        |
| Bending radius(mm)          | Single bend   | 160                    |
|                             | Repeated bend | 280                    |
| Tensile strength(N)         |               | 1100                   |
| Recommended temperature(°C) | Storage       | -60~+85                |
|                             | Installation  | -40~+60                |
|                             | Operating     | -50~+85                |

● Products meet the RoHS requirement, and according to the requirements of RoHS.

| Electrical Characteristics                                                                              |                             |                     |
|---------------------------------------------------------------------------------------------------------|-----------------------------|---------------------|
| Inner conductor DC resistance(Ω/km)                                                                     |                             | ≤2.39               |
| Outer conductor DC resistance(Ω/km)                                                                     |                             | ≤2.09               |
| Characteristic impedance(Ω)                                                                             |                             | 50±2.0              |
| Capacitance(p F/m)                                                                                      |                             | 78                  |
| Velocity(%)                                                                                             |                             | 86                  |
| Dielectric strength(KV)                                                                                 |                             | 10.0                |
| Insulation resistance (MΩ/km)                                                                           |                             | > 1×10 <sup>4</sup> |
| Peak voltage(V)                                                                                         |                             | 3200                |
| Cut-off Frequency(GHZ)                                                                                  |                             | 5.2                 |
| Attenuation and Average power(Maximum attenuation value shall be 105% of the nominal attenuation value) |                             |                     |
| Frequency (MHz)                                                                                         | Attenuation (@20°C) dB/100m | Average power (kw)  |
| 200                                                                                                     | 1.78                        | 5.26                |
| 450                                                                                                     | 2.78                        | 3.41                |
| 800                                                                                                     | 3.83                        | 2.48                |
| 900                                                                                                     | 4.07                        | 2.34                |
| 1000                                                                                                    | 4.35                        | 2.19                |
| 1500                                                                                                    | 5.54                        | 1.74                |
| 1800                                                                                                    | 6.06                        | 1.57                |
| 2000                                                                                                    | 6.44                        | 1.48                |
| 2200                                                                                                    | 6.83                        | 1.40                |
| 2500                                                                                                    | 7.34                        | 1.30                |
| 2700                                                                                                    | 7.68                        | 1.23                |
| 3000                                                                                                    | 8.19                        | 1.16                |
| VSWR                                                                                                    |                             |                     |
| 800MHz~1000MHz                                                                                          |                             | ≤1.15               |
| 1700MHz~2500MHz                                                                                         |                             | ≤1.18               |
| 2500MHz~3000MHz                                                                                         |                             | ≤1.20               |

Note:

For fire-retardant cable, recommended temperature:

Storage: -30°C~+80°C

Installation: -25°C~+60°C

Operating temperature: -30°C~+80°C