

# CABLE SPECIFICATION

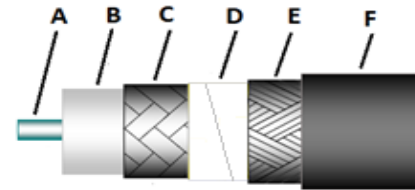
## WaveFlex 142



### DATA SHEET

Revision: - 1/1/21

WaveFlex 142 is a low loss replacement of solid dielectric. With a 80% velocity tape-wrapped dielectric, WaveFlex 142 has 40% lower loss than other solid dielectric cables of similar size.



### Electrical Data

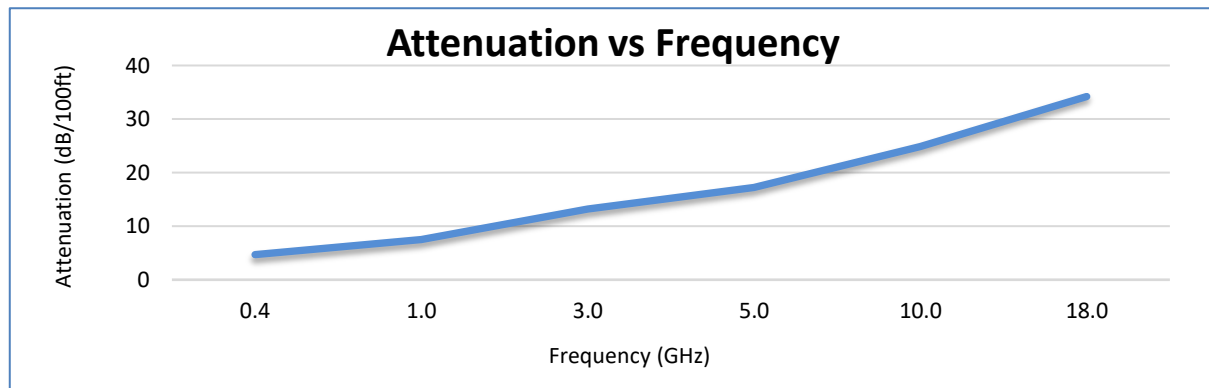
|   |           |      |  |
|---|-----------|------|--|
| Frequency, Max (GHz)                    | 26.5      |      |  |
| Impedance, nominal ( $\Omega$ )         | 50        |      |  |
| Velocity of Propagation (%)             | 80        |      |  |
| Shielding Effectiveness, 18 GHz (dB/ft) | <-95dB    |      |  |
| Capacitance (pF/ft)                     | 25        |      |  |
| Delay (ns/ft), (ns/meter)               | 1.27      | 4.17 |  |
| Attenuation k1 (db/100ft) @ 23 deg C    | 0.231     |      | Attenuation (Typical) at any Frequency |
| Attenuation k2 (db/100ft) @ 23 deg C    | 0.0001785 |      | =k1 x SqRt (FMHz) + k2 x (FMHz)        |

### Mechanical/Environmental Data

|                                   |             |       |  |
|-----------------------------------|-------------|-------|--|
| Weight (lbs/100ft), (Kg/100m)     | 4.40        | 6.61  |  |
| Temperature Range ( $^{\circ}$ C) | -55 to +200 |       |  |
| Minimum Bend Radius (inch), (mm)  | 1.00        | 25.40 |  |

### Construction Data

|                            |   |  |       |                |
|----------------------------|---|--|-------|----------------|
| Inner Conductor (inch)     | A |  | 0.051 | SSPC           |
| Dielectric (inch)          | B |  | -     | Expanded PTFE  |
| Inner Braid                | C |  | -     | Flat SPC Wrap  |
| Interlayer                 | D |  | -     | Polyimide Tape |
| Second Outer Shield (inch) | E |  | -     | Round SPC      |
| Jacket (inch O.D.)         | F |  | 0.195 | Blue Tint FEP  |



|                       |     |     |      |      |      |      |
|-----------------------|-----|-----|------|------|------|------|
| Frequency GHz         | 0.4 | 1.0 | 3.0  | 5.0  | 10.0 | 18.0 |
| Typical Loss dB/100ft | 4.7 | 7.5 | 13.2 | 17.2 | 24.9 | 34.2 |