

# CFS550

Flexible, Ultra Low-Loss,  
Phase & Amplitude Stable Coaxial Cable



| Structure & Dimension     |                               |   |                             |       |       |       |       |       |       |       |       |       |  |
|---------------------------|-------------------------------|---|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
|                           | Structure                     | Dimension (mm)  | Material                    |       |       |       |       |       |       |       |       |       |  |
| 1                         | Inner Conductor               | 1.60  | Silver Plated Copper        |       |       |       |       |       |       |       |       |       |  |
| 2                         | Insulating                    | 4.30  | LD-PTFE                     |       |       |       |       |       |       |       |       |       |  |
| 3                         | Outer Conductor               | 4.50  | Silver Plated Copper Ribbon |       |       |       |       |       |       |       |       |       |  |
| 4                         | Shielding                     | 5.10  | Silver Plated Copper        |       |       |       |       |       |       |       |       |       |  |
| 5                         | Jacket                        | 5.60  | PFA                         |       |       |       |       |       |       |       |       |       |  |
| Specification             |                               |   |                             |       |       |       |       |       |       |       |       |       |  |
| 1                         | Operating Frequency (GHz)     | 18  |                             |       |       |       |       |       |       |       |       |       |  |
| 2                         | Impedance (Ohms)              | 50  |                             |       |       |       |       |       |       |       |       |       |  |
| 3                         | Phase Stability               | $\leq \pm 2^\circ$ @ 10 GHz ; $\leq \pm 3^\circ$ @ 18 GHz |                             |       |       |       |       |       |       |       |       |       |  |
| 4                         | Phase Stability (Temperature) | < 750 PPM @ -55°C ~ +85°C                                 |                             |       |       |       |       |       |       |       |       |       |  |
| 5                         | Amplitude Stability           | $\leq \pm 0.1$ dB @ 18 GHz                                |                             |       |       |       |       |       |       |       |       |       |  |
| 6                         | Velocity of Propagation       | 83%   |                             |       |       |       |       |       |       |       |       |       |  |
| 7                         | Voltage Withstand (V,DC)      | 2000  |                             |       |       |       |       |       |       |       |       |       |  |
| 8                         | Shielding Effectiveness (dB)  | > 90  |                             |       |       |       |       |       |       |       |       |       |  |
| 9                         | Weight (g/m)                  | 93  |                             |       |       |       |       |       |       |       |       |       |  |
| 10                        | Single Bend Radius (mm)       | 28.00   |                             |       |       |       |       |       |       |       |       |       |  |
| 11                        | Repeated Bend Radius (mm)     | 56.00   |                             |       |       |       |       |       |       |       |       |       |  |
| 12                        | Temperature Range (°C )       | -55 ~ +165  |                             |       |       |       |       |       |       |       |       |       |  |
| Attenuation VS. Frequency |                               |   |                             |       |       |       |       |       |       |       |       |       |  |
| Frequency (MHz)           | 100                           | 300   | 500                         | 1000  | 2000  | 3000  | 4000  | 6000  | 8000  | 10000 | 12400 | 18000 |  |
| Attenuation (dB/m)        | 0.070                         | 0.122   | 0.157                       | 0.223 | 0.316 | 0.388 | 0.448 | 0.550 | 0.636 | 0.713 | 0.795 | 0.961 |  |
| Average Power (KW)        | 3.248                         | 1.873   | 1.450                       | 1.024 | 0.723 | 0.589 | 0.509 | 0.415 | 0.359 | 0.320 | 0.287 | 0.237 |  |