

## Construction

|                 |                    |                                |
|-----------------|--------------------|--------------------------------|
| Inner Conductor | Material           | CCA                            |
|                 | Diameter, mm       | 4.80±0.05                      |
| Dielectric      | Material           | Foamed PE                      |
|                 | Diameter, mm       | 12.2±0.2                       |
| Outer Conductor | Material           | Annular Corrugated Copper Tube |
|                 | Diameter, mm       | 13.8±0.15                      |
| Jacket          | Material           | LLDPE                          |
|                 | Min. thickness, mm | 0.8                            |
|                 | Diameter, mm       | 15.8±0.2                       |



## Electrical Component

|                                     |                    |
|-------------------------------------|--------------------|
| Inner conductor DC resistance, Ω/km | ≤1.6               |
| Outer conductor DC resistance, Ω/km | ≤3.25              |
| Characteristic impedance, Ω         | 50±1.5             |
| Capacitance, pF/m                   | 76±2               |
| Velocity, %                         | 85                 |
| DC Durable Voltage, kV              | 4.0                |
| Insulation resistance, MΩ/m         | >1×10 <sup>4</sup> |

## Ordering Information

|                |                                          |
|----------------|------------------------------------------|
| STF50-LSZH-1/2 | Black 50 Ohm Standard/Annular 1/2" Cable |
|----------------|------------------------------------------|

## Applications

- High Power Rating
- Outstanding Intermodulation Performance
- Low VSWR contributes to low system noise
- Long term operating life at high transmit power levels
- Low Attenuation - results in highly efficient signal transfer
- Outstanding heat transfer properties and temperature stabilized dielectric materials
- Solid outer conductor creates a continuous RFI/EMI shield to minimize system interference
- Applications - feedlines for broadcast and terrestrial microwave antennas, wireless cellular, PCS and ESMR base stations, cabling of antenna arrays, radio equipment interconnects, OEM jumpers, Main feed transitions, and GPS lines

## Attenuation and Average Power

| Frequency, MHz | Attenuation, dB/100m | Attenuation, dB/100m | Average Power Rating, kW |
|----------------|----------------------|----------------------|--------------------------|
| 100            | 2.17                 | 0.66                 | 3.94                     |
| 150            | 2.67                 | 0.81                 | 3.17                     |
| 200            | 3.10                 | 0.94                 | 2.75                     |
| 280            | 3.69                 | 1.12                 | 2.27                     |
| 450            | 4.74                 | 1.44                 | 1.80                     |
| 700            | 6.01                 | 1.83                 | 1.42                     |
| 800            | 6.45                 | 1.97                 | 1.33                     |
| 900            | 6.87                 | 2.09                 | 1.25                     |
| 1000           | 7.28                 | 2.22                 | 1.18                     |
| 1500           | 9.08                 | 2.77                 | 0.95                     |
| 1800           | 10.05                | 3.06                 | 0.86                     |
| 2000           | 10.66                | 3.25                 | 0.81                     |
| 2100           | 10.96                | 3.34                 | 0.79                     |
| 2200           | 11.24                | 3.43                 | 0.77                     |
| 2300           | 11.54                | 3.52                 | 0.75                     |
| 2400           | 11.80                | 3.60                 | 0.75                     |
| 2500           | 12.08                | 3.68                 | 0.73                     |
| 2600           | 12.36                | 3.77                 | 0.71                     |
| 3000           | 12.39                | 4.08                 | 0.65                     |
| 3400           | 14.40                | 4.39                 | 0.60                     |
| 3500           | 14.66                | 4.47                 | 0.59                     |
| 3700           | 15.12                | 4.61                 | 0.58                     |
| 4000           | 15.82                | 4.82                 | 0.55                     |
| 5000           | 18.01                | 5.49                 | 0.48                     |
| 6000           | 20.05                | 6.11                 | 0.43                     |
| 8000           | 23.83                | 7.26                 | 0.37                     |
| 8800           | 25.25                | 7.70                 | 0.34                     |

## Mechanical Characteristics

|                             |               |         |
|-----------------------------|---------------|---------|
| Bending Radius, mm          | Single Bend   | 80      |
|                             | Repeated Bend | 125     |
| Tensile Strength, N         |               | 1000    |
| Cable weight, kg/km         |               | 180     |
| Recommended Temperature, °C | Storage       | -45~+85 |
|                             | Installation  | -45~+85 |
|                             | Operating     | -45~+85 |

## Return Loss, VSWR

|                       |
|-----------------------|
| 800MHz~1000MHz ≤1.10  |
| 1700MHz~1900MHz ≤1.13 |
| 1900MHz~2200MHz ≤1.13 |
| 2200MHz~2500M-        |
| 2500MHz~2700MHz ≤1.15 |

### Standard Conditions:

- For attenuation: VSWR 1.0, cable temperature 20°C (68°F)
- For average power: VSWR 1.0 ambient temperature 40°C (104°F)
- Inner conductor temperature 100°C (212°F) - No solar loading
- Maximum attenuation value shall be 105% off the nominal attenuation value.