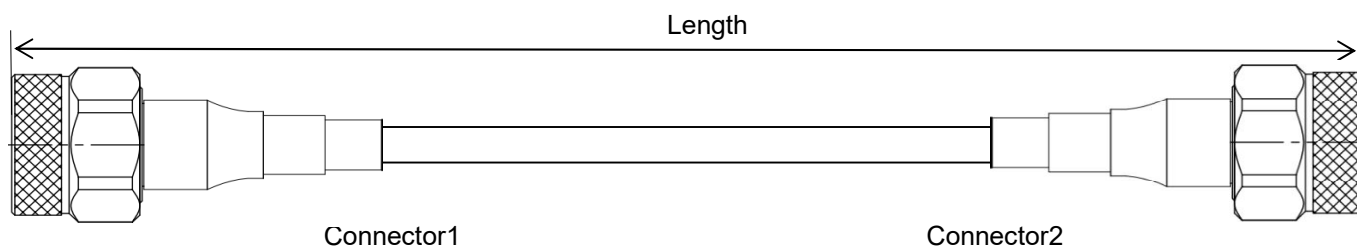


## High Flex Life Economy Test Cable Assembly, Using FL520

DC-18 GHz, N Male to N Male

FL520-NMNM-L(L:Length)

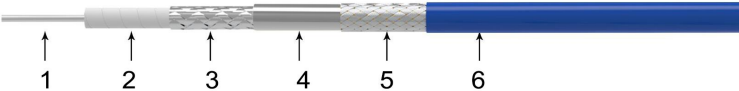


- Length can be in meter or in inch etc, e.g, FL520-NMNM-1M. Standard length tolerance:  $\pm 1.5\%$ . Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

### Configuration

|                    |                            |                    |                            |
|--------------------|----------------------------|--------------------|----------------------------|
| <b>Connector 1</b> | N male                     | <b>Connector 2</b> | N male                     |
| Body               | Passivated stainless steel | Body               | Passivated stainless steel |
| Center Contact     | Gold plated brass          | Center Contact     | Gold plated brass          |
| <b>Cable Type</b>  | FL520                      |                    |                            |

### Cable Construction



| No. | Construction     | Size (mm) | Materials                              |
|-----|------------------|-----------|--|
| 1   | Center Conductor | 1.29      | Solid silver-plated copper             |
| 2   | Dielectric       | 3.90      | Low density PTFE                       |
| 3   | Outer Conductor  | 4.15      | Silver-plated flat copper ribbon braid |
| 4   | Interlayer       | 4.28      | Aluminum foil wrap                     |
| 5   | Outer Shield     | 4.73      | Silver-plated copper wire braid        |
| 6   | Jacket           | 5.20      | FEP                                    |

### Electrical

|                                |                      |
|--------------------------------|----------------------|
| Frequency                      | DC-18 GHz            |
| Impedance                      | 50 $\Omega$          |
| VSWR Max                       | 1.3                  |
| IL Max(1 meter assembly)       | 1.7dB                |
| *Mechanical Phase Stability    | $< \pm 6^\circ$      |
| Amplitude Stability vs Shaking | $< \pm 0.2\text{dB}$ |

### Mechanical & Environmental

|                              |           |
|------------------------------|-----------|
| Min.Bending Radius Static    | 25mm      |
| Min. Bending Radius Repeated | 52mm      |
| Velocity of Propagation      | 76%       |
| Temperature(Operation)       | -50~85 °C |
| Temperature(Storage)         | -60~85 °C |

\* Wrap the cable 360 degree around a mandrel whose radius is ten times of the cable jacket size.

## Bulk Cable Attenuation(Typical@25℃) & Power(VSWR=1.0; 40℃; Sea level)

|  |       |       |       |       |       |             |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------------|-------|-------|-------|-------|-------|
| Frequency MHz  | 400   | 500   | 1000  | 1350  | 1500  | 6000        | 8000  | 10000 | 12400 | 14000 | 18000 |
| dB/100 Meter   | 17.4  | 19.4  | 27.7  | 32.3  | 34.0  | 69.9        | 81.3  | 91.5  | 102.7 | 109.6 | 125.5 |
| Avg.Power kW   | 1.201 | 1.072 | 0.754 | 0.646 | 0.612 | 0.298       | 0.256 | 0.228 | 0.203 | 0.190 | 0.166 |
| K1=0.856233  |       |       |       |       |       | K2=0.000591 |       |       |       |       |       |
| Attenuation at any frequency=[K1×SQRT(FMHz)]+[K2×FMHz] |       |       |       |       |       |             |       |       |       |       |       |

### Notes:

- 1) The above attenuation refers to typical loss of cable only, max loss is 1.1 times of typical loss. Insertion loss per connector is estimated as 0.04dB x SQRT Freq(GHz).
- 2) Power handling values are calculated based on cable properties. Power handling will vary based on connector type and actual VSWR of the cable assembly.

### Typical Test Data (FL520-NMNM-1M)

