

FB520

Stable Loss, VSWR, Phase vs Flexing

Features:

- * Low Insertion Loss
- * High Power
- * Low PIM

Applications:

- * Phased-array Radar
- * Satellite Communication
- * Avionics
- * Telecom

Electrical

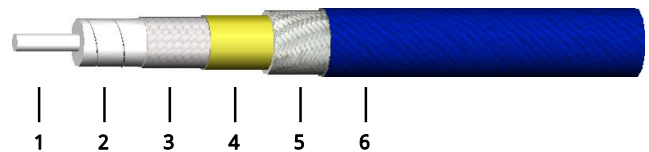
| | |
|--------------------------|-----------|
| Frequency: | DC~18GHz |
| Cut-off Frequency: | 28GHz |
| Impedance: | 50Ω |
| Velocity of Propagation: | 76% |
| Shielding Effectiveness: | 90dB min. |
| Voltage Withstand: | 1000V DC |
| PIM: | -155dBc |

Mechanical

| | |
|-----------------------------|--------|
| Bend Radius (installation): | 26.0mm |
| Bend Radius (repeated): | 52.0mm |
| Weight: | 68g/m |

Environmental

Temperature: -55~+200°C

Construction


| No. | Name | Size (mm) | Material |
|-----|-----------------|-----------|----------------------------|
| 1 | Inner Conductor | 1.29 | Silver-plated copper |
| 2 | Dielectric | 3.91 | Low density PTFE |
| 3 | Inner Shield | 4.15 | Silver-plated copper tape |
| 4 | Interlayer | 4.28 | Aluminum tape |
| 5 | Outer Shield | 4.79 | Silver-plated copper braid |
| 6 | Jacket | 5.20 | FEP |

Attenuation & Power Handling

| Frequency (GHz) | 0.1 | 0.3 | 0.5 | 1 | 2 | 4 | 6 | 8 | 12 | 18 |
|-------------------------|------|------|------|------|------|------|------|------|-------|-------|
| Attenuation*1 (dB/100m) | 8.7 | 15.1 | 19.5 | 27.7 | 39.5 | 56.6 | 69.9 | 81.4 | 100.9 | 125.5 |
| Average Power*2 (W) | 2407 | 1383 | 1068 | 750 | 526 | 367 | 297 | 255 | 206 | 165 |

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

 Calculate Cable Attenuation: Attenuation (dB/100m) = $0.856234 * \sqrt{F} \text{ (MHz)} + 0.000591 * F \text{ (MHz)}$

 Calculate Connector Attenuation: Attenuation (dB) = $0.03 * \sqrt{F} \text{ (GHz)}$
How To Order
FB520-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

Examples:

To order a FB520 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify FB520-18-SFN-0.5.

Connector naming rules:

S - SMA (18GHz, VSWR 1.25)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)