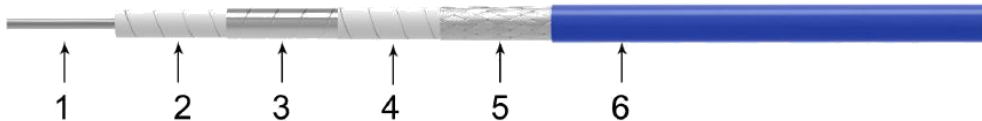


50GHz Phase Stable, Low loss Cable Assembly

Cable Assembly, P5, 2.4mm male to 2.4mm male 1.0Meter

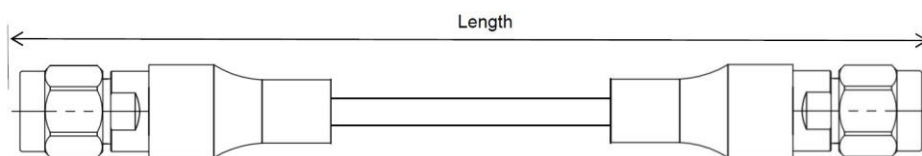
P.N. : B-P524.2400.1

Cable Structure



| Structure | Diameter (mm) | Material |
|---------------------|---------------|---------------------------------|
| 1. Center Conductor | 0.72 ±0.02 | Solid silver plated copper |
| 2. Dielectric | 2.15 ±0.05 | Ultra-Low density PTFE |
| 3. Outer conductor | 2.30 ±0.05 | Silver plated copper tape wrap |
| 4. Interlayer | 2.60 ±0.05 | Low density PTFE |
| 5. Outer shield | 3.05 ±0.10 | Silver plated copper wire braid |
| 6. Jacket | 3.60 ±0.10 | FEP |

Cable Assembly



- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

Cable Assembly Configuration

| | |
|------------------------------------|---|
| Connector (Right) | 2.4mm male, straight |
| Body/Coupling Nut/Contact Material | Passivated s/steel, Gold plated BeCu contacts |
| Connector (Left) | 2.4mm male, straight |
| Body/Coupling Nut/Contact Material | Passivated s/steel, Gold plated BeCu contacts |
| Cable Type | P5-360 |

Cable Assembly



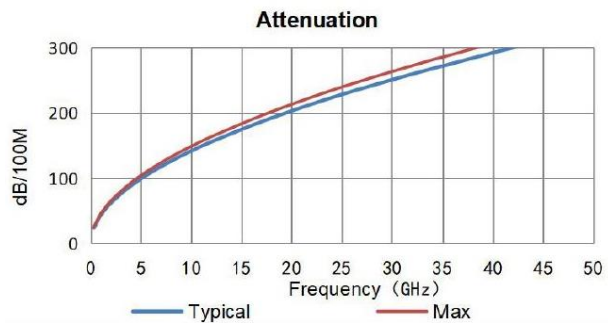
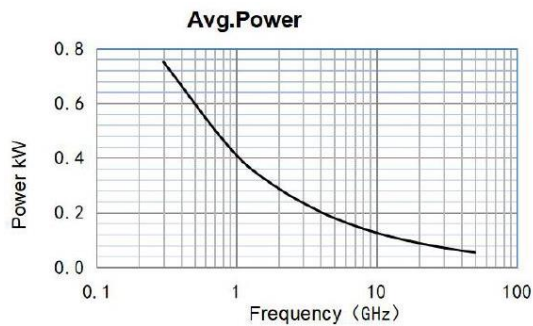
50GHz Phase Stable, Low loss Cable Assembly

Cable Assembly, P5, 2.4mm male to 2.4mm male 1.0Meter

P.N. : B-P524.2400.1

Electrical Specification

| | | | | | | |
|--|---|--------|--------|--------|---------|--------|
| Frequency Range | DC-50GHz | | | | | |
| Impedance | 50 ohm | | | | | |
| VSWR Max | 1.35:1 (DC ~ 50GHz) | | | | | |
| V. P | 74% | | | | | |
| Withstanding Volt | 1000V DC | | | | | |
| Shielding effectiveness | >90dB | | | | | |
| Mechanical Phase Stability | $\pm 6^\circ @ 40\text{GHz}$, $\pm 7^\circ @ 50\text{GHz}$ | | | | | |
| Temperature Phase Stability | 500PPM(-50°C to +80 °C) | | | | | |
| Mechanical Amplitude Stability | $\pm 0.06\text{dB} @ 40\text{GHz}$, $\pm 0.07\text{dB} @ 50\text{GHz}$ | | | | | |
| Max Attenuation vs Frequency dB/M (*With two connectors) @ 25°C | 6GHz | 12GHz | 18GHz | 26GHz | 40GHz | 50GHz |
| | 1.30dB | 1.86dB | 2.31dB | 2.90dB | 3.50 dB | 3.90dB |
| Avg Power at sea level @ 40°C | 165W | 115W | 93W | 76W | 61W | 55W |



Environmental Specification

| | |
|-----------------------|------------------|
| Operating Temperature | -65°C to +165 °C |
| Storage Temperature | -55°C to +165 °C |

Mechanical Specification

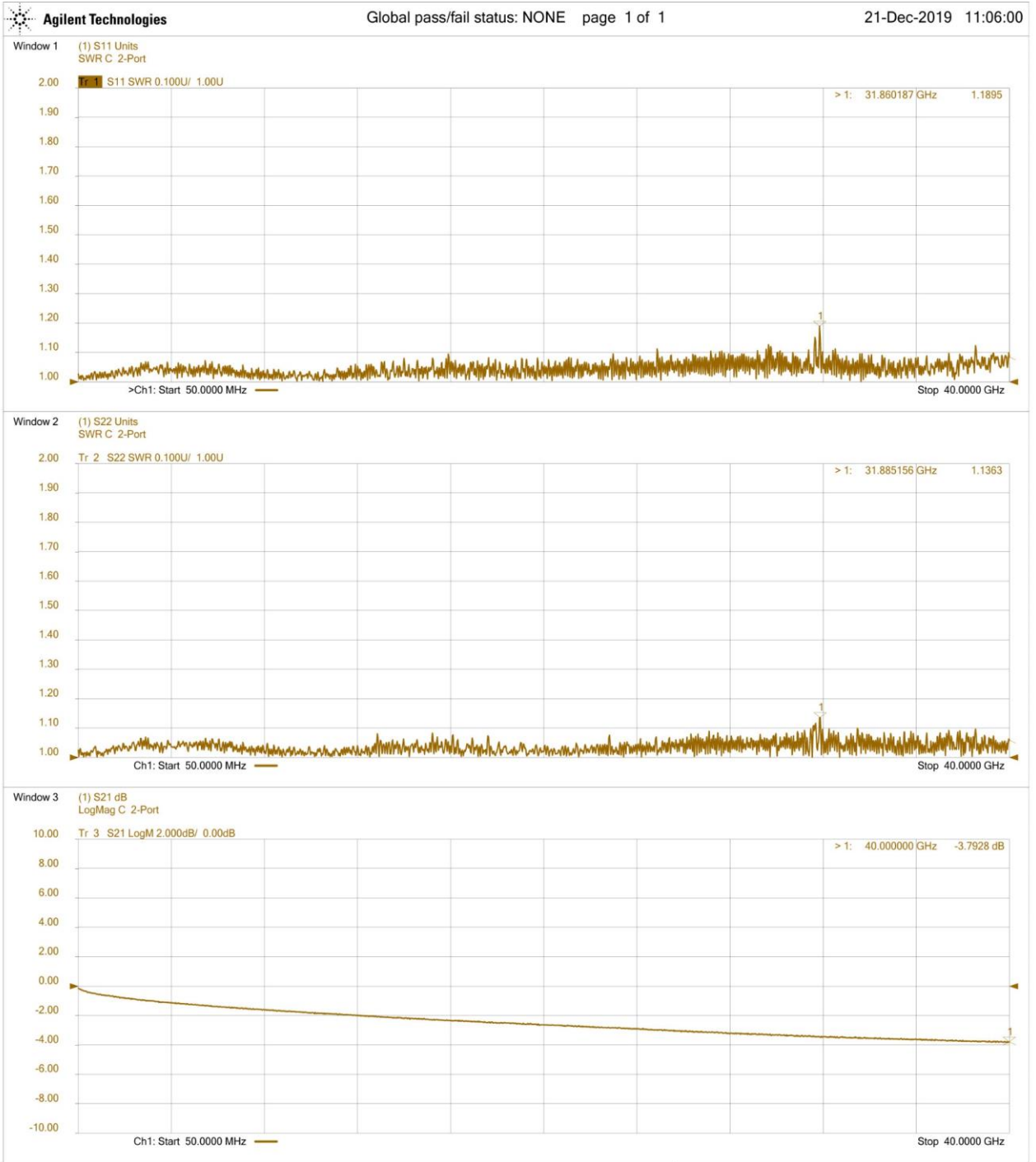
| | |
|-----------------------------|---------------------------------|
| Min Bending Radius static | 18mm |
| Min Bending Radius repeated | 36mm |
| Weight | 34 gram / Meter (Cable itself) |

50GHz Phase Stable, Low loss Cable Assembly

Cable Assembly, P5, 2.4mm male to 2.4mm male 1.0Meter

P.N. : B-P524.2400.1

Test Data



| Channel Settings | | | | | | | | |
|------------------|------------|--------|-------------|------------|-------------|----------------|-------------|-------------|
| Channel | Sweep Type | Points | Start (MHz) | Stop (GHz) | IF BW (kHz) | Sweep Time (s) | Pow 1 (dBm) | Pow 2 (dBm) |
| 1 | LinFreq | 1601 | 50.000000 | 40.000000 | 35.000000 | 1.000000 | -15.000000 | -15.000000 |

| Trace Attributes | | | | | | | | |
|------------------|----|-------|---------|------------|---------|--------|---------------|------------|
| Window | ID | Trace | Channel | Correction | Options | Marker | Position | Response |
| 1 | 1 | S11 | 1 | C 2-Port | | 1 | 31860.188 MHz | 1.1895 |
| 2 | 1 | S22 | 1 | C 2-Port | | 1 | 31885.156 MHz | 1.1363 |
| 3 | 1 | S21 | 1 | C 2-Port | | 1 | 40000 MHz | -3.7928 dB |