

C29S Series (SMP Female-ST to SMP Female-ST)

Superbend Cable Assembly, 50ohms, DC-40GHz



C29S-37-37-"L" (L: Length)

Maximum Ratings

Operating Temperature -55°C to +125°C

Storage Temperature -55°C to +125°C

Permanent damage may occur if any of these limits are exceeded

| | | |
|-------------------------|----------|------|
| Cable Diameter | 2.64mm | |
| Velocity of Propagation | 76% | |
| Shielding Effectiveness | >90dB | |
| Power Handling at 20°C | 1 GHz | 103W |
| | 6 GHz | 40W |
| | 18 GHz | 22W |
| | 26.5 GHz | 18W |
| 40 GHz | 14W | |
| Min. Bending Radius | 5.0mm | |

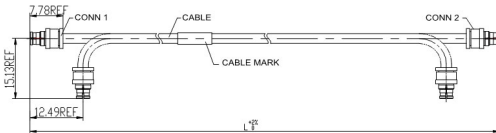
Features

- Low loss
- Super flexible with minimum bending radius of 5mm
- High shielding effectiveness >90dB
- High retention force, >90N
- Eliminate the need for expensive right angle connector
- Very stable performance during flexing and shaking
 - Amplitude Stability: $\pm 0.08\text{dB}$@26.5GHz
 - Phase Stability vs. Flexure: $\pm 3^\circ$@26.5GHz (When wrapped 360° around a 26.4mm radius mandrel)

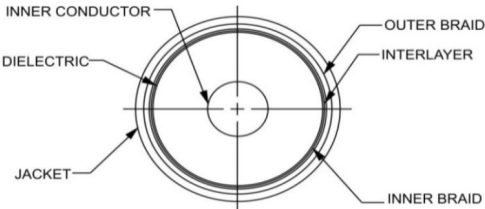
Applications

- 5G Massive MIMO and antenna OTA test
- 5G switch and attenuator matrixes systems
- In-box and board to board connection
- Lab and production line test
- Product temperature cycle test
- Military and commercial systems

Outline Drawing Unit[mm]



Cable Cross Section



| Cable Construction | |
|--------------------|-----|
| Inner Conductor | - |
| Dielectric | - |
| Inner Braid | - |
| Outer Braid | - |
| Jacket | FEP |

| Connectors | |
|--|--|
| • Body, Berillium Copper, Gold plated | |
| • Center contacts, Berillium Copper, Gold plated | |
| • Dielectric, PTFE, Natural | |

Product Guarantee*

Micable will repair or replace your cable assembly if it fails within six months after shipment. This guarantee excludes product damage from misuse or abuse

Electrical Specifications at 25°C (C29S-37-37-0.3M)

| Freq. (GHz) | Length (m) | Insertion Loss (dB@GHz) | | | | | | | | VSWR (@GHz) | | | | | | | |
|-------------|------------|-------------------------|------|------|------|---------|------|---------|------|-------------|------|------|------|---------|------|---------|------|
| | | DC.-6 | | 6-18 | | 18-26.5 | | 26.5-40 | | DC.-6 | | 6-18 | | 18-26.5 | | 26.5-40 | |
| | | Typ. | Max. | Typ. | Max. | Typ. | Max. | Typ. | Max. | Typ. | Max. | Typ. | Max. | Typ. | Max. | Typ. | Max. |
| DC-40 | 0.1 | 0.4 | 0.5 | 0.5 | 0.7 | 0.6 | 0.8 | 0.7 | 1.0 | 1.13 | 1.20 | 1.22 | 1.30 | 1.25 | 1.30 | 1.30 | 1.35 |
| | 0.2 | 0.5 | 0.6 | 0.8 | 1.0 | 0.9 | 1.2 | 1.1 | 1.4 | | | | | | | | |
| | 0.3 | 0.6 | 0.8 | 1.0 | 1.2 | 1.2 | 1.5 | 1.5 | 1.8 | | | | | | | | |
| | 0.4 | 0.8 | 0.9 | 1.1 | 1.5 | 1.6 | 1.9 | 2.0 | 2.3 | | | | | | | | |
| | 0.5 | 1.0 | 1.1 | 1.6 | 1.8 | 1.9 | 2.2 | 2.4 | 2.7 | | | | | | | | |

Typical Performance Data (C29S-37-37-0.3M)

| Frequency(MHz) | VSWR | Insertion Loss (dB) |
|----------------|------|---------------------|
| 50 | 1.02 | 0.08 |
| 1000 | 1.05 | 0.31 |
| 2000 | 1.06 | 0.40 |
| 2500 | 1.07 | 0.46 |
| 4000 | 1.09 | 0.54 |
| 5000 | 1.11 | 0.60 |
| 6000 | 1.13 | 0.65 |
| 7000 | 1.14 | 0.71 |
| 8000 | 1.15 | 0.76 |
| 9000 | 1.16 | 0.81 |
| 10000 | 1.17 | 0.85 |
| 12000 | 1.18 | 0.91 |
| 15000 | 1.20 | 0.98 |
| 18000 | 1.22 | 1.04 |
| 26500 | 1.25 | 1.25 |
| 40000 | 1.30 | 1.51 |

