

## C29H Series (SMA Male-ST to SMA Male-ST)

Ultra Low Loss .086 Cable Assembly, 50ohms, DC-26.5GHz



### C29H-01-01-"L" (L: Length)

#### Maximum Ratings

Operating Temperature -55°C to +125°C

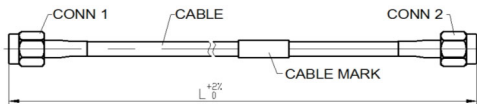
Storage Temperature -55°C to +125°C

Permanent damage may occur if any of these limits are exceeded

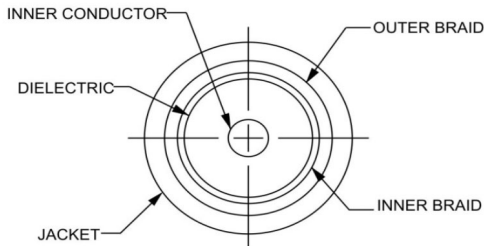
|                           |          |        |
|---------------------------|----------|--------|
| Cable Diameter            |          | 2.57mm |
| Velocity of Propagation   |          | 86%    |
| Shielding Effectiveness   |          | >100dB |
| Power Handling at<br>20°C | 1 GHz    | 122W   |
|                           | 6 GHz    | 40W    |
|                           | 12 GHz   | 29W    |
|                           | 18 GHz   | 22W    |
|                           | 26.5 GHz | 18W    |
| Min. Bending Radius       |          | 5mm    |

#### Outline Drawing

Unit[mm]



#### Cable Cross Section



| Cable Construction |                            |
|--------------------|----------------------------|
| Inner Conductor    | SPC, Solid                 |
| Dielectric         | FEP                        |
| Inner Braid        | Silver-Plated Copper Strip |
| Outer Braid        | Silver-Plated Copper Braid |
| Jacket             | FEP                        |

| Connectors                            |  |
|---------------------------------------|--|
| • Nut, Stainless steel, Passivated    |  |
| • Body, Brass, Gold plated            |  |
| • Center contacts, Brass, 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

#### Features

- Super flexible with minimum bending radius of 5 mm
- Extremely low loss with 3.0dB/m @ 26.5GHz
- Excellent shielding effectiveness >100 dB
- Excellent phase stability vs temperature 500ppm@-40~+70°C
- Very stable performance during bending and shaking
  - Amplitude Stability: <±0.08dB@26.5GHz
  - Phase Stability vs. Flexure: ±1.4°@26.5GHz(When wrapped 360° around a 25.7mm radius mandrel)

#### Applications

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

#### Electrical Specifications at 25°C

| Freq. (GHz) | Length (m) | Insertion Loss (dB@GHz) |      |      |      |       |      |         |      | VSWR (@GHz) |      |      |      |       |      |         |      |
|-------------|------------|-------------------------|------|------|------|-------|------|---------|------|-------------|------|------|------|-------|------|---------|------|
|             |            | DC.-6                   |      | 6-12 |      | 12-18 |      | 18-26.5 |      | DC.-6       |      | 6-12 |      | 12-18 |      | 18-26.5 |      |
|             |            | Typ.                    | Max. | Typ. | Max. | Typ.  | Max. | Typ.    | Max. | Typ.        | Max. | Typ. | Max. | Typ.  | Max. | Typ.    | Max. |
| DC- 26.5    | 0.2        | 0.5                     | 0.6  | 0.7  | 0.8  | 0.8   | 0.9  | 0.9     | 1.1  | 1.10        | 1.15 | 1.15 | 1.25 | 1.17  | 1.30 | 1.23    | 1.35 |
|             | 0.3        | 0.6                     | 0.7  | 1.0  | 1.1  | 1.1   | 1.2  | 1.3     | 1.5  |             |      |      |      |       |      |         |      |
|             | 0.5        | 0.9                     | 1.0  | 1.3  | 1.4  | 1.6   | 1.7  | 1.9     | 2.1  |             |      |      |      |       |      |         |      |
|             | 0.8        | 1.4                     | 1.5  | 1.9  | 2.0  | 2.3   | 2.5  | 1.8     | 2.1  |             |      |      |      |       |      |         |      |
|             | 1          | 1.6                     | 1.7  | 2.2  | 2.4  | 2.8   | 3.0  | 3.4     | 3.7  |             |      |      |      |       |      |         |      |

#### Typical Performance Data ( C29H-01-01-0.3M)

| Frequency(MHz) | VSWR | Insertion Loss (dB) |
|----------------|------|---------------------|
| 50             | 1.02 | 0.08                |
| 1000           | 1.06 | 0.29                |
| 2000           | 1.06 | 0.39                |
| 2500           | 1.07 | 0.46                |
| 4000           | 1.09 | 0.54                |
| 5000           | 1.09 | 0.60                |
| 6000           | 1.10 | 0.66                |
| 7000           | 1.10 | 0.71                |
| 8000           | 1.12 | 0.76                |
| 9000           | 1.12 | 0.81                |
| 10000          | 1.15 | 0.85                |
| 12000          | 1.13 | 0.93                |
| 13000          | 1.11 | 0.97                |
| 15000          | 1.14 | 1.07                |
| 18000          | 1.11 | 1.15                |
| 26500          | 1.23 | 1.31                |

