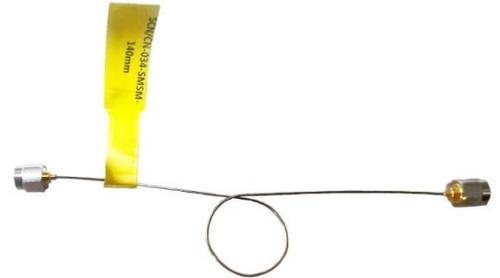


## 0.86mm SCuNi-SS Cryogenic Cable Assemblies

G034SCN /SMA Male / SMA Male/DC-18 GHz

Model: G034SCN-SMAMSMAM-L



### Features:

- Max Frequency 18 GHz
- VSWR max of 1.35

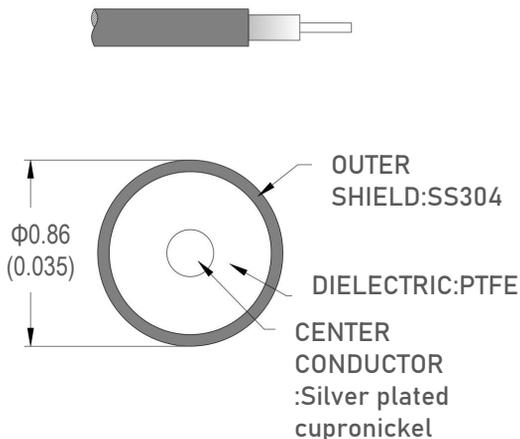
### Applications:

- Dilution refrigerators/Cryogenic devices
- Quantum Computing
- Vacuum Chambers

### Electrical Characteristics:

| Parameter               | Min | Typ  | Max  | Units |
|-------------------------|-----|------|------|-------|
| Frequency Range         | DC  |      | 18   | GHz   |
| VSWR                    |     | 1.25 | 1.35 | :1    |
| Shielding Effectiveness |     | 110  |      | dB    |
| Capacitance             |     |      | 98   | pF/m  |
| Impedance               |     | 50   |      | ohm   |

### Cable Cross Section:



### Environmental And Physical Characteristics:

| Description                 | Parameter           | Units |
|-----------------------------|---------------------|-------|
| Cable Diameter              | 0.86                | mm    |
| Min. Bending Radius         | 5.0                 | mm    |
| Thermal conductivity@4-20K* | 25 (for 10cm cable) | μw/k  |
| Operating Temperature       | 4K to +100          | °C    |
| Storage Temperature         | -55 to +200         | °C    |

\* Note: Heat quantity required for one end of 10 cm long cable (excluding connectors) to reach 20 K when 4 K heat anchor is applied to the other end of the cable.

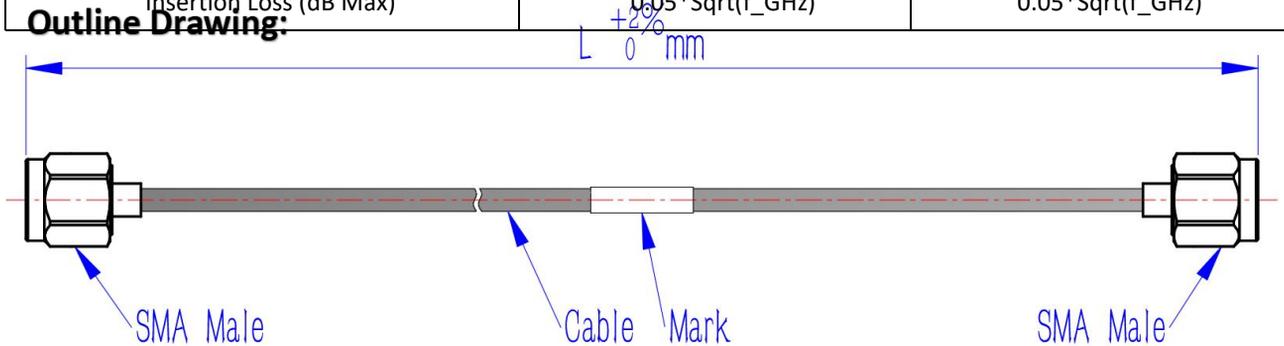
### Cable Performance By Frequency

| Frequency | 0.5 GHz | 1GHz | 5 GHz | 10 GHz | 18 GHz | 20 GHz |
|-----------|---------|------|-------|--------|--------|--------|
|-----------|---------|------|-------|--------|--------|--------|

## Connectors:

| Description                  | Connector 1                        | Connector 2                        |
|------------------------------|------------------------------------|------------------------------------|
| Type                         | SMA Straight Male                  | SMA Straight Male                  |
| Contact Material And Plating | Beryllium bronze, Gold             | Beryllium bronze, Gold             |
| Dielectric Type              | PTFE                               | PTFE                               |
| Body Material And Plating    | Beryllium bronze, Gold<br>Or SS304 | Beryllium bronze, Gold<br>Or SS304 |
| Insertion Loss (dB Max)      | $0.05 * \text{Sqrt}(f\_GHz)$       | $0.05 * \text{Sqrt}(f\_GHz)$       |

## Outline Drawing:



## Ordering Information:

| Base Number      | Length (Unit mm) | Custom Design Services                                  |
|------------------|------------------|---|
| G034SCN-SMAMSMAM | -L               | LEAVE BLANK(NOT REQUIRED)<br>-Loop (Stress relief loop) |