



# 00100A1F3A2XXX

## Cable Assembly

### 18GHz SMA(M)–SMA(F) for Semi-flex RG402 Jacket Cable Assembly

#### Features

- ✓ High Repeatability
- ✓ Low VSWR



#### Electrical Specifications

|              |             |
|--------------|-------------|
| Frequency    | DC-18GHz    |
| VSWR         | 1.3:1(Max.) |
| Impedance    | 50Ohm       |
| Connection 1 | SMA Male    |
| Connection 2 | SMA Female  |

#### Material

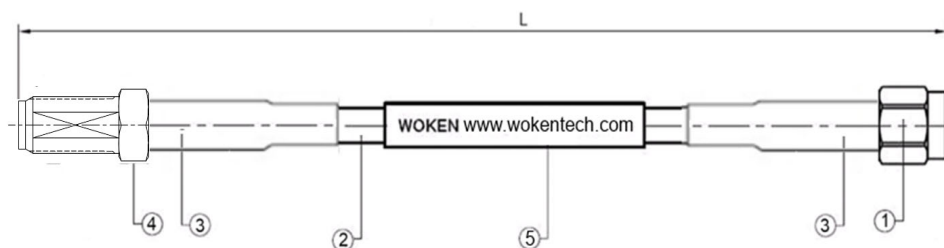
| Part                   | Material        | Plated |
|------------------------|-----------------|--------|
| 1.SMA Connector        |                 |        |
| Body                   | Brass           | Nickel |
| Center Pin             | Brass           | Gold   |
| Insulator              | Teflon          |        |
| 2.Cable                |                 |        |
| Semi-Flex RG402 Jacket |                 | Blue   |
| 3.Adhesive shrink tube |                 | Black  |
| 4.SMA Connector        |                 |        |
| Body                   | Brass           | Gold   |
| Center Pin             | Phosphor Bronze | Gold   |
| Insulator              | Teflon          |        |
| 5.Heat Shrink Tube     |                 | Yellow |

#### Mechanical

|            |            |
|------------|------------|
| Durability | 500 Cycles |
|------------|------------|

#### Outling Drawing (Unit:mm)

| DIMENSIONS  | TOLERANCES |
|-------------|------------|
| 0.5~10mm    | ±0.2       |
| 11~100mm    | ±5.0       |
| 101~500mm   | ±10.0      |
| 501~1000mm  | ±15.0      |
| 1001~2000mm | ±20.0      |
| 2000~5000mm | ±50.0      |





Wake up your further dream.



## Semi-Flex RG402 with Jacket Cable Physical Characteristics

|                                 |                                     |
|---------------------------------|-------------------------------------|
| Center Conductor                | 0.94mm Silver Plated Copper         |
| Dielectric Diameter             | 2.95mm PTFE                         |
| Braid                           | 3.58mm Tin-soaked Tin Plated copper |
| Jacket                          | 4.14mm FEP                          |
| Min. Bending Radius Single Bend | 10mm                                |

## Semi-Flex RG402 with Jacket Cable Electrical Characteristics

|                                                                                    |                |                           |                  |
|------------------------------------------------------------------------------------|----------------|---------------------------|------------------|
| Impedance                                                                          | 50 ± 2ohms     |                           |                  |
| Capacitance                                                                        | 94 pF/m (nom.) |                           |                  |
| Operating Temperature                                                              | -65~ 180°C     |                           |                  |
| Shielding Effect                                                                   | <-130 dB       |                           |                  |
| Velocity of propagation                                                            | 71%            |                           |                  |
| Max. Operating Frequency                                                           | 18GHz          |                           |                  |
| Structure                                                                          | Frequency      | Maximum Attenuation(dB/m) | Average Power(W) |
|  | 0.4GHz         | 0.25                      | 686              |
|                                                                                    | 1GHz           | 0.41                      | 419              |
|                                                                                    | 2GHz           | 0.60                      | 291              |
|                                                                                    | 2.4GHz         | 0.67                      | 265              |
|                                                                                    | 3GHz           | 0.77                      | 235              |
|                                                                                    | 5GHz           | 1.02                      | 182              |
|                                                                                    | 6GHz           | 1.13                      | 166              |
|                                                                                    | 10GHz          | 1.52                      | 122              |
|                                                                                    | 18GHz          | 2.15                      | 83               |

整條 Assembly 之 Loss 為以下 3 項數值之加總

1. 接頭 Loss :  $0.06 \times \sqrt{\text{頻率}}$  (2 端都有接頭則需將此數值 x2)
2. 組裝 Loss : 0.12 (2 端都有組裝則需將此數值 x2)
3. 線材 Loss : 依上述 Maximum Attenuation 換算需求長度之 Loss
4. 晃動測試公差: I/L +/-0.2dB