



# RF & MICROWAVE CABLE ASSEMBLY CATALOGUE

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Reversion: 01

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CABLE ASSEMBLIES



## NOTES FOR COAX CABLE ASSEMBLY

RACOMTECH is a professional RF & Microwave technology company, our RF & Microwave products includes the wide range of coaxial cable assembly at a low cost. These coaxial cables operate at frequencies from DC to 20GHz. Our cable assembly production is equipped with dedicated assembly and test equipment, we have coax cable trimming machine, cable length cutting machine, Agilent vector network analysers and the pneumatic soldering station. Our commitment is to provide our customer high quality cable assemblies at low prices through our arrangement.

### Features

- Custom design
- Wide range of standard products
- High Performance
- All standard flange types are available

### Frequency range:

Standard frequency range of DC to 20GHz  
Non-standard waveguide bands can be offered.

### Wide range coaxial connectors:

2.92mm, 3.5mm SMA, SMP, SMC, SMB, N, BNC, TNC, RP-SMA, RP-N, RP-TNC, 7/16, 4/10, UHF, F..

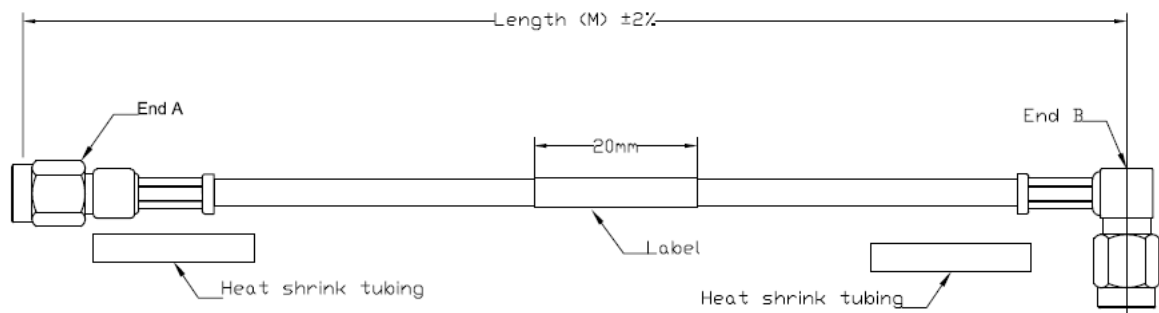
### Temperature range:

Standard temperature range  $-30$  to  $+80^{\circ}\text{C}$   
Electrical parameters perform at the standard operating temperature range.  
Other temperature ranges are available (Please contact RACOMTECH)

RACOMTECH has the ability to provide a wide range of solutions to meet most applications



## CUSTOM CABLE ASSEMBLY REQUIREMENT



End A  
SMA (Straight)  
Male

End B  
SMA (Right Angle)  
Male

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$  )

## CABLE GUIDE - CABLES VS INSERTION LOSS

### STANDARD FLEXIBLE CABLES

| CABLE TYPE | M17      | IMP. | Attenuation dB/M @ 25 degree |       |       |       |       |
|------------|----------|------|------------------------------|-------|-------|-------|-------|
|            | Part No. | Ohm  | 1 GHz                        | 3 GHz | 6 GHz | 12GHz | 18GHz |
| RG58       | C17/28   | 50   | 0.67                         |       |       |       |       |
| RG59       | C17/29   | 75   | 0.44                         |       |       |       |       |
| RG6        | C17/2    | 75   | 0.41                         |       |       |       |       |
| RG179      | C17/94   | 75   | 0.95                         | 1.70  |       |       |       |
| RG178      | C17/93   | 50   | 1.54                         | 2.75  |       |       |       |
| RG316      | C17/113  | 50   | 0.86                         | 1.54  |       |       |       |
| RG142      | C17/60   | 50   | 0.44                         | 0.81  | 1.22  | 1.90  |       |
| RG400      | C17/128  | 50   | 0.56                         | 0.95  | 1.45  | 2.19  |       |
| RG223      | C17/84   | 50   | 0.51                         | 0.87  | 1.27  | 1.97  |       |
| RG214      | C17/75   | 50   | 0.25                         | 0.47  | 0.75  | 1.10  |       |
| RG213      | C17/74   | 50   | 0.25                         |       |       |       |       |

- Note:
- Standardized by MIL-C-17 US government specification since the 40's, these familiar P/N's are mainly used for military RF and microwave applications. Every electrical, mechanical and environmental performance is controlled and in compliance with the relevant standard.
- These cables will be of perfect use with dynamic applications (bending moment) or needing flexibility for ease of connection.

## CABLE GUIDE - CABLES VS INSERTION LOSS

| LOW LOSS - FLEXIBLE CABLES |             |      |                              |       |       |       |       |
|----------------------------|-------------|------|------------------------------|-------|-------|-------|-------|
| CABLE TYPE                 | Cable group | IMP. | Attenuation dB/M @ 25 degree |       |       |       |       |
|                            |             | Ohm  | 1 GHz                        | 3 GHz | 6 GHz | 12GHz | 18GHz |
| LMR100                     | 0.100"      | 50   | 0.75                         | 1.50  | 2.20  |       |       |
| LMR195                     | 0.195"      | 50   | 0.37                         | 0.71  | 0.99  |       |       |
| LMR200                     | 0.200"      | 50   | 0.34                         | 0.61  | 0.88  |       |       |
| LMR240                     | 0.240"      | 50   | 0.25                         | 0.44  | 0.68  |       |       |
| LMR240-75                  | 0.240"      | 75   | 0.24                         | 0.43  |       |       |       |
| LMR400                     | 0.400"      | 50   | 0.14                         | 0.25  | 0.37  |       |       |

**Note:**

These high performance custom cables have been designed for optimized electrical and environmental requirements. Cost effective compared with RG cables, they are the perfect alternative to fulfil your needs.

| SEMI - FLEXIBLE CABLES |             |      |                              |       |       |       |       |
|------------------------|-------------|------|------------------------------|-------|-------|-------|-------|
| CABLE TYPE             | Cable Group | IMP. | Attenuation dB/M @ 25 degree |       |       |       |       |
|                        |             | Ohm  | 2 GHz                        | 3 GHz | 6 GHz | 12GHz | 20GHz |
| RG405                  | 0.086"      | 50   | 0.98                         | 1.22  | 1.80  | 2.70  | 3.64  |
| RG402                  | 0.141"      | 50   | 0.57                         | 0.73  | 1.11  | 1.71  | 2.34  |
| RG401                  | 0.25"       | 50   | 0.33                         | 0.43  | 0.68  | 1.13  | 1.60  |

**Note:**

Using a tin-dipped braid technology, these cables are a compromise between performance and flexibility. They allow easy routing during installation (without spring back effect) and multiple repositions on site. Preserving high performance level (low loss and high shielding efficiency,) they are a good cost-effective alternative to semi rigid cables.

| CURRUGATED CABLES |                  |      |                              |       |       |      |       |
|-------------------|------------------|------|------------------------------|-------|-------|------|-------|
| CABLE TYPE        | Cable Group      | IMP. | Attenuation dB/M @ 25 degree |       |       |      |       |
|                   |                  | Ohm  | 2 GHz                        | 3 GHz | 6 GHz | 8GHz | 12GHz |
| SCF12-50J         | 1/2"<br>CELLFLEX | 50   | 0.16                         | 0.20  | 0.30  | 0.38 | 0.48  |
| LCF12-50J         | 1/2"<br>CELLFLEX | 50   | 0.11                         | 0.14  | 0.20  | 0.25 |       |

**Note:**

The outer conductor of these cables is constituted of a corrugated tube (spiral or ringed winding). This construction allows perfect shielding and some bendability while respecting large bending radius. The height performance level of these cables enables them to be used in outdoor long length transmission lines.

## FLEXIBLE CABLE RG58

(MIL-C-17/28-RG58)



MIL-C-17/28-RG58

### Application:

RG58 is one of the most popular RG cables. Due to its construction and raw materials construction, RG58 is far to be as performant as the equivalent cables ( RG142, RG223, RG400 ) However, this very flexible cable must be considered for applications requiring low electrical performance and reduced cost.

| CONSTRUCTION / DIMENSIONS |             |      |        | ELECTRICAL CHARACTERISTICS |                         |
|---------------------------|-------------|------|--------|----------------------------|-------------------------|
|                           | material    | mm   | inches | characteristic impedance   | 50Ω ± 2Ω                |
| Center conductor          | stranded TC | 0.90 | 0.035  | operating frequency range  | DC - 1 GHz              |
| Dielectric                | solid PE(2) | 2.95 | 0.116  | shielding effectiveness    | 40 dB                   |
| Inner shield              | TC(1) braid | 3.66 | 0.144  | voltage withstanding       | 5 000 V rms             |
| Outer shield              | -           | -    | -      | peak power                 | 2.6 kW                  |
| Jacket black              | PVC(3)      | 4.95 | 0.195  | capacitance                | 96 pF / m    29 pF / ft |
|                           |             |      |        | velocity of propagation    | 66 % (5 ns / m)         |

- (1) TC = Tinned Copper
- (2) PE = Polyethylene
- (3) PVC = Polyvinyl Chloride

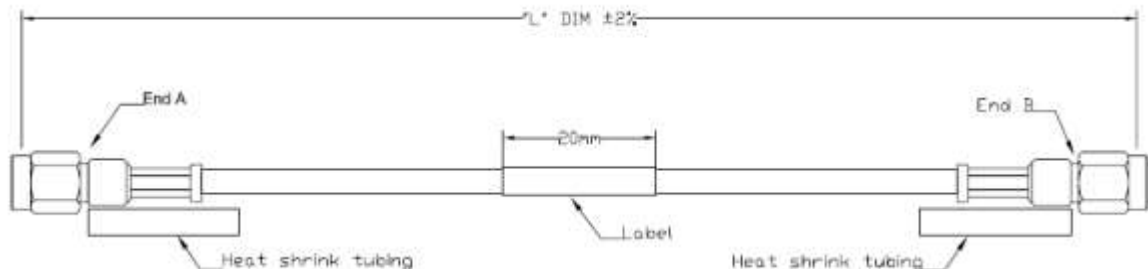
Note: typical VSWR for the cable assembly  
VSWR=1.2:1

| MECHANICAL CHARACTERISTICS         |          |                 |
|------------------------------------|----------|-----------------|
| recommended minimum bending radius | 20 mm    | 0.787 inch      |
| weight                             | 35 g / m | 0.0234 lbs / ft |

| ENVIRONMENTAL CHARACTERISTICS |              |               |
|-------------------------------|--------------|---------------|
| operating temperature range   | -40 / +85 °C | -40 / +185 °F |
| fire resistance               | NO           |               |
| halogen free                  | NO           |               |

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                  |         |       |
|--|----------------------------------|---------|-------|
| GHz  | dB / m                           | dB / ft | Watts |
| 0.05   | 0.14                             | 0.04    | 246   |
| 0.1  | 0.20                             | 0.06    | 174   |
| 0.2  | 0.29                             | 0.09    | 123   |
| 0.3  | 0.36                             | 0.11    | 100   |
| 0.5  | 0.47                             | 0.14    | 78    |
| 0.6  | 0.51                             | 0.16    | 71    |
| 0.7  | 0.56                             | 0.17    | 66    |
| 0.8  | 0.60                             | 0.18    | 61    |
| 1.0  | 0.67                             | 0.20    | 55    |
| attenuation calculation (dB/m)                           | (0.63 x √f GHz) + (0.04 x f GHz) |         |       |
| power calculation (W)                                    | 55 / √f GHz                      |         |       |

Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x √f (GHz)




End A  
SMA (Straight)  
Male

End B  
SMA (Straight)  
Male

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)

## RG58 CABLE ASSEMBLIES

( REGULAR ORDERED RG58 CABLE ASSEMBLIES )

| <b><u>FLEXIBLE CABLE RG58 ASSEMBLIES</u></b> |   |                   |                              |   |
|--|---|-------------------|------------------------------|---|
| SKU  | Model                                   | End A - Connector | End B - Connector            | Photo   |
| <a href="#">00-0416</a>                      | SMA male to RA-SMA male RG58-XX.XX(M)   | SMA male straight | SMA male Right Angle         |    |
| <a href="#">00-0412</a>                      | SMA male to SMA male RG58-XX.XX(M)      | SMA male straight | SMA male straight            |    |
| <a href="#">00-0406</a>                      | BNC male to SMA male RG58-XX.XX(M)      | BNC male straight | SMA male straight            |    |
| <a href="#">00-0408</a>                      | SMA male to BH-BNC female RG58-XX.XX(M) | SMA male straight | BNC Bulkhead female straight |  |
| <a href="#">00-0404</a>                      | BNC male to BNC male RG58-XX.XX(M)      | BNC male straight | BNC male straight            |  |
| <a href="#">00-0407</a>                      | TNC male to SMA male RG58-XX.XX(M)      | TNC male straight | SMA male straight            |  |
| <a href="#">00-0409</a>                      | TNC male to TNC male RG58-XX.XX(M)      | TNC male straight | TNC male straight            |  |

## FLEXIBLE CABLE RG58

(MIL-C-17/28-RG58)

| <b><u>FLEXIBLE CABLE RG58 ASSEMBLES</u></b> |  |                          |                            |   |
|---|--|--------------------------|----------------------------|---|
| <b>SKU</b>                                  | <b>Model</b>                               | <b>End A - Connector</b> | <b>End B - Connector</b>   | <b>Photo</b>  |
| <a href="#">00-0411</a>                     | BNC female to BNC male RG58-XX.XX(M)       | BNC female straight      | BNC male Right Angle       |    |
| <a href="#">00-0401</a>                     | N male to N male RG58-XX.XX(M)             | N male straight          | N male straight            |    |
| <a href="#">00-0402</a>                     | N male to BH-N female RG58-XX.XX(M)        | N male straight          | N Bulkhead female straight |   |
| <a href="#">00-0405</a>                     | UHF male to UHF male RG58-XX.XX(M)         | UHF male straight        | UHF male straight          |  |
| <a href="#">00-0410</a>                     | UHF male to UHF female RG58-XX.XX(M)       | UHF male straight        | UHF female straight        |  |
| <a href="#">00-0403</a>                     | FME female to FME male RG58-XX.XX(M)       | FME female straight      | FME male straight          |  |
| <a href="#">00-0413</a>                     | SMB male to SMB male RG58-XX.XX(M)         | SMB male straight        | SMB male straight          |  |
| CSUTOM                                      | End A (CON.) to End B (CON.) RG58-xx.xx(M) | Connector (M/F) (S/RA)   | Connector (M/F) (S/RA)     |   |



## CONNECTOR SELECTION (TABLE)

( FOR MIL-C-17/28-RG58 CABLE)

| CONNECTOR SELECTION ( FOR RG58 CABLE) |                       |                                   |                 |                        |                           |
|---------------------------------------|-----------------------|-----------------------------------|-----------------|------------------------|---------------------------|
| SKU                                   | Connector Type Series | Interface                         | Frequency (GHz) | Impedance ( $\Omega$ ) | Classic level ( Mil Spec) |
| 01-0366                               | N                     | Male Straight, Crimp              | 6               | 50                     | Commercial                |
| 01-0314                               | N                     | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0355                               | N                     | Male Straight, Clamp              | 6               | 50                     | Commercial                |
| 01-0338                               | N                     | Male straight, Reversed polar,    | 3               | 50                     | Commercial                |
| 01-0336                               | N                     | Female Straight, Crimp,           | 6               | 50                     | Commercial                |
| 01-0335                               | N                     | Female, Bulkhead, Straight, Crimp | 6               | 50                     | Commercial                |
| 01-0405                               | SMA                   | Male Straight, Crimp              | 11              | 50                     | Commercial                |
| 01-0407                               | SMA                   | Female Straight, Crimp,           | 11              | 50                     | Commercial                |
| 01-0416                               | SMA                   | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0430                               | SMA                   | Male straight, Reversed polar,    | 6               | 50                     | Commercial                |
| 01-0433                               | SMA                   | Female straight, Reversed polar,  | 6               | 50                     | Commercial                |
| 01-0506                               | TNC                   | Male Straight, Crimp              | 6               | 50                     | Commercial                |
| 01-0517                               | TNC                   | Female straight, crimp,           | 6               | 50                     | Commercial                |
| 01-0202                               | BNC                   | Male Straight, Crimp              | 4               | 50                     | Commercial                |
| 01-0215                               | BNC                   | Male Right Angle, crimp           | 4               | 50                     | Commercial                |
| 01-0235                               | BNC                   | Female, Bulkhead, Straight, Crimp | 4               | 50                     | Commercial                |
| 01-0830                               | FME                   | Male Straight, Crimp              | 4               | 50                     | Commercial                |
| 01-0831                               | FME                   | Female straight, crimp,           | 4               | 50                     | Commercial                |
| 01-0823                               | SMB                   | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0609                               | UHF                   | Male Right Angle, crimp           | 2               | 50                     | Commercial                |
| 01-0607                               | UHF                   | Female straight, crimp,           | 2               | 50                     | Commercial                |

## FLEXIBLE CABLE RG59

(MIL-C-17/29-RG59)



### Application:

Due to its 75 ohms characteristic impedance, RG59 is rather dedicated to TV/Video application. Its solid inner conductor allows better attenuation than the equivalent KX solution (KX6).

| CONSTRUCTION / DIMENSIONS |               |      |        |
|---------------------------|---------------|------|--------|
|                           | material      | mm   | inches |
| Center conductor          | Solid CCS (1) | 0.57 | 0.022  |
| Dielectric                | solid PE(2)   | 3.71 | 0.146  |
| Inner shield              | TC(1) braid   | 4.50 | 0.177  |
| Outer shield              | -             | -    | -      |
| Jacket black              | PVC(3)        | 6.15 | 0.242  |

- (1) CCS = Copper Covered Steel
- (2) PE = Polyethylene
- (3) PVC = Polyvinyl Chloride

| MECHANICAL CHARACTERISTICS         |          |                 |
|------------------------------------|----------|-----------------|
| recommended minimum bending radius | 30 mm    | 1.18 inch       |
| weight                             | 47 g / m | 0.0315 lbs / ft |

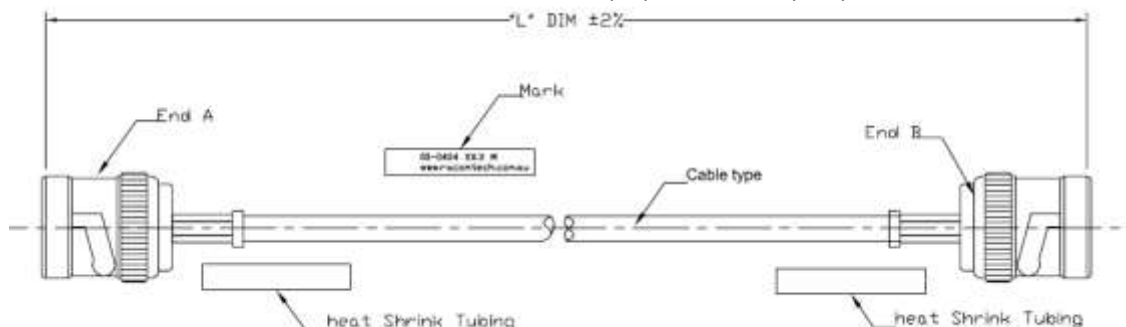
| ENVIRONMENTAL CHARACTERISTICS |              |               |
|-------------------------------|--------------|---------------|
| operating temperature range   | -40 / +85 °C | -40 / +185 °F |
| fire resistance               | NO           |               |
| halogen free                  | NO           |               |

| ELECTRICAL CHARACTERISTICS |                           |
|----------------------------|---------------------------|
| characteristic impedance   | 75Ω ± 3Ω                  |
| operating frequency range  | DC - 1 GHz                |
| shielding effectiveness    | 40 dB                     |
| voltage withstanding       | 7000 V rms                |
| peak power                 | 27 kW                     |
| capacitance                | 60 pF / m    18.2 pF / ft |
| velocity of propagation    | 66 % (5 ns / m)           |

Note: typical VSWR for the cable assembly  
VSWR=1.35:1

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                  |         |       |
|--|----------------------------------|---------|-------|
| GHz  | dB / m                           | dB / ft | Watts |
| 0.05   | 0.09                             | 0.03    | 335   |
| 0.1  | 0.13                             | 0.04    | 237   |
| 0.2  | 0.19                             | 0.06    | 268   |
| 0.3  | 0.23                             | 0.07    | 137   |
| 0.5  | 0.30                             | 0.09    | 106   |
| 0.6  | 0.33                             | 0.10    | 97    |
| 0.7  | 0.36                             | 0.11    | 90    |
| 0.8  | 0.39                             | 0.12    | 84    |
| 1.0  | 0.44                             | 0.13    | 75    |
| attenuation calculation (dB/m)                           | (0.40 x √f GHz) + (0.04 x f GHz) |         |       |
| power calculation (W)                                    | 75 / √f GHz                      |         |       |

Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x √f (GHz)



- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)

## CONNECTOR SELECTION (TABLE)

( FOR MIL-C-17/29-RG59 CABLE)

| CONNECTOR SELECTION ( TABLE) |               |               |               |
|------------------------------|---------------|---------------|---------------|
| SKU                          | 01-0204       | 01-0342       | 01-0355       |
| Connector Type               | BNC           | F             | N -75         |
| Interface                    | Male Straight | Male Straight | Male Straight |
| Frequency (GHz)              | 1.5           | 2.5           | 1.5           |
| Impedance ( $\Omega$ )       | 75            | 75            | 75            |
| Classic level                | Commercial    | Commercial    | Commercial    |

## FLEXIBLE CABLE RG316

(MIL-C-17/113-RG316)

### Application:



RG316 is one of the most popular RG cables. This cable has a good flexibility and a better attenuation than RG174. Usable in severe thermal conditions, this cable is compatible with a large range of connector series.

| CONSTRUCTION / DIMENSIONS |                |      |        |
|---------------------------|----------------|------|--------|
|                           | material       | mm   | inches |
| Center conductor          | stranded       | 0.53 | 0.021  |
|                           | SPCCS(1)       |      |        |
| Dielectric                | solid PTFE (2) | 1.52 | 0.06   |
| Inner shield              | SPC(3) braid   | 1.98 | 0.078  |
| Outer shield              | -              | -    | -      |
| Jacket black              | Brown FEP(4)   | 2.95 | 0.098  |

| ELECTRICAL CHARACTERISTICS |                         |
|----------------------------|-------------------------|
| characteristic impedance   | 50Ω ± 2Ω                |
| operating frequency range  | DC - 3 GHz              |
| shielding effectiveness    | 40 dB                   |
| voltage withstanding       | 2 000 V rms             |
| peak power                 | 1.8 kW                  |
| capacitance                | 96 pF / m    29 pF / ft |
| velocity of propagation    | 70 % (4.8 ns / m)       |

- (1) SPCCS= Silver Plated Copper Covered Steel
- (2) PTFE = Polytetrafluoroethylene
- (3) SPC = Silver plated copper
- (4) FEP = Fluorinated Ethylene Propylene

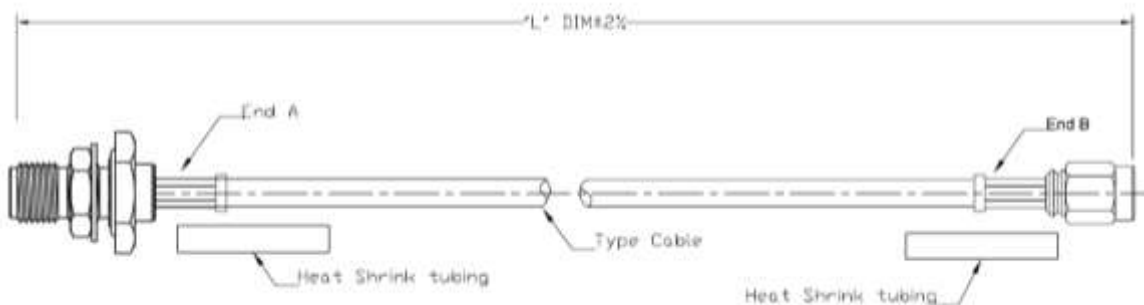
Note: typical VSWR for the cable assembly  
VSWR=1.25:1

| MECHANICAL CHARACTERISTICS         |            |                 |
|------------------------------------|------------|-----------------|
| recommended minimum bending radius | 10 mm inch | 0.394           |
| weight                             | 17 g / m   | 0.0110 lbs / ft |

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                  |         |       |
|--|----------------------------------|---------|-------|
| GHz  | dB / m                           | dB / ft | Watts |
| 0.1  | 0.26                             | 0.08    | 411   |
| 0.2  | 0.37                             | 0.11    | 291   |
| 0.3  | 0.46                             | 0.14    | 237   |
| 0.5  | 0.60                             | 0.18    | 184   |
| 1.0  | 0.86                             | 0.26    | 130   |
| 1.5  | 1.06                             | 0.32    | 106   |
| 2.0  | 1.24                             | 0.38    | 92    |
| 2.5  | 1.40                             | 0.42    | 82    |
| 3.0  | 1.54                             | 0.47    | 75    |
| attenuation calculation (dB/m)                           | (0.82 x √f GHz) + (0.04 x f GHz) |         |       |
| power calculation (W)                                    | 130 / √f GHz                     |         |       |







| ENVIRONMENTAL CHARACTERISTICS |                       |               |
|-------------------------------|-----------------------|---------------|
| operating temperature range   | -55 / +200 °C         | -67 / +392 °F |
| fire resistance               | Yes(CSA FT6/IEC332-2) |               |
| halogen free                  | NO                    |               |

Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x √f (GHz)



- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)

## FLEXIBLE CABLE RG316 (MIL-C-17/113-RG316)

| <u>FLEXIBLE CABLE RG316 ASSEMBLES</u> |  |                                      |  |   |
|---------------------------------------|--|--------------------------------------|--|---|
| SKU                                   | Model  | End A - Connector                    | End B - Connector                      | Photo   |
| 00-0381                               | N male to RA-SMA male<br>RG316-XX.XX(M)        | N male straight                      | SMA male<br>Reversed<br>Polarization   |    |
| 00-0382                               | N female to RP-SMA<br>male RG316-XX.XX(M)      | N female BH<br>straight              | SMA male<br>Reversed<br>Polarization   |    |
| 00-0383                               | SMA male to SMA male<br>RG316-XX.XX(M)         | SMA male straight                    | SMA male straight                      |   |
| 00-0384                               | RP-SMA male to RP-SMA<br>female RG316-XX.XX(M) | SMA male<br>Reversed<br>Polarization | SMA female<br>Reversed<br>Polarization |  |
| 00-0385                               | SMA male to SMA<br>female RG316-XX.XX(M)       | SMA male straight                    | SMA female BH<br>straight              |  |
| 00-0386                               | SMA male to N female<br>RG316-XX.XX(M)         | SMA male straight                    | N female BH<br>straight                |  |
| CUSTOM                                | End A to End B RG316-<br>XX.XX(M)              | End A - Connector                    | End B - Connector                      |   |

CABLE ASSEMBLIES

## CONNECTOR SELECTION (TABLE)

( FOR MIL-C-17/113-RG316 CABLE)

| CONNECTOR SELECTION ( FOR RG316 CABLE) |                       |                                       |                 |                        |                           |
|--|-----------------------|---------------------------------------|-----------------|------------------------|---------------------------|
| SKU                                    | Connector Type Series | Interface                             | Frequency (GHz) | Impedance ( $\Omega$ ) | Classic level ( Mil Spec) |
| 01-0312                                | N                     | Male Straight, Crimp                  | 6               | 50                     | Commercial                |
| 01-0404                                | SMA                   | Male Straight, Crimp                  | 6               | 50                     | Commercial                |
| 01-0441                                | SMA                   | Male Right Angle, Crimp,              | 6               | 50                     | Commercial                |
| 01-0414                                | SMA                   | Female Straight, crimp                | 6               | 50                     | Commercial                |
| 01-0437                                | SMA                   | Female straight, O-ring,              | 6               | 50                     | Commercial                |
| 01-0432                                | SMA                   | Male straight, Reversed polar,        | 6               | 50                     | Commercial                |
| 01-0455                                | SMA                   | Female straight, Reversed polar       | 6               | 50                     | Commercial                |
| 01-0509                                | TNC                   | male straight, crimp,                 | 6               | 50                     | Commercial                |
| 01-0510                                | TNC                   | female straight, crimp,               | 6               | 50                     | Commercial                |
| 01-0521                                | TNC                   | male straight, Reversed polar, crimp, | 6               | 50                     | Commercial                |
| 01-0209                                | BNC                   | Male Straight, Crimp                  | 4               | 50                     | Commercial                |
| 01-0208                                | BNC                   | Female, Bulkhead, Straight, Crimp     | 4               | 50                     | Commercial                |
| 01-0802                                | MCX                   | Male Straight, Crimp                  | 3               | 50                     | Commercial                |
| 01-0801                                | MCX                   | Male Right Angle, Crimp               | 3               | 50                     | Commercial                |
| 01-0820                                | SMB                   | Male Straight, Crimp                  | 2.5             | 50                     | Commercial                |
|  |                       |                                       |                 |                        |                           |

## FLEXIBLE CABLE RG142

(MIL-C-17/60 -RG142)

### Application:

RG142 is one of the most popular RG cables. This cable presents a good compromise between flexibility and electrical performances. RG142 will be selected among other 5/50 RG's for applications requiring high frequency range and low attenuation. Usable in severe thermal conditions.



| CONSTRUCTION / DIMENSIONS |                |      |        |
|---------------------------|----------------|------|--------|
|                           | material       | mm   | inches |
| Center conductor          | Solid SPC(1)   | 0.94 | 0.037  |
| Dielectric                | solid PTFE (2) | 2.95 | 0.116  |
| Inner shield              | SPC (3) braid  | -    | -      |
| Outer shield              | SPC (3) braid  | 4.19 | 0.165  |
| Jacket black              | Brown FEP(4)   | 4.95 | 0.195  |

- 1) SPCS= Silver Plated Copper
- 2) PTFE = Polytetrafluoroethylene
- 3) SPC = Silver plated copper
- 4) FEP = Fluorinated Ethylene Propylene

| ELECTRICAL CHARACTERISTICS |                          |
|----------------------------|--------------------------|
| characteristic impedance   | 50Ω ± 2Ω                 |
| operating frequency range  | DC – 12.4 GHz            |
| shielding effectiveness    | 65 dB (DC-3GHz)          |
| voltage withstanding       | 5 000 V rms              |
| peak power                 | 3.4 kW                   |
| capacitance                | 96 pF / m    29.3 pF /ft |
| velocity of propagation    | 70 % (4.8 ns / m)        |

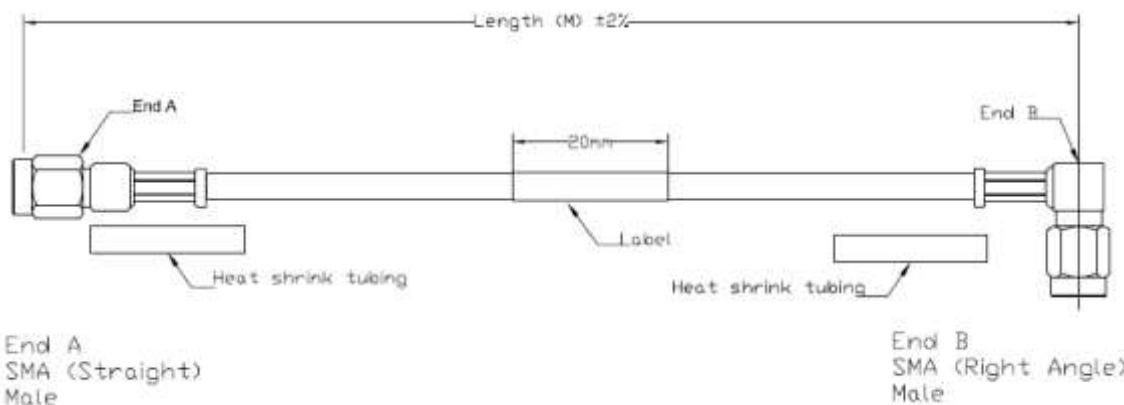
Note: typical VSWR for the cable assembly  
VSWR=1.2:1 @3GHz

| MECHANICAL CHARACTERISTICS         |          |                |
|------------------------------------|----------|----------------|
| recommended minimum bending radius | 25 mm    | 0.984inch      |
| weight                             | 64 g / m | 0.043 lbs / ft |

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                  |         |       |
|--|----------------------------------|---------|-------|
| GHz  | dB / m                           | dB / ft | Watts |
| 0.5  | 0.30                             | 0.09    | 665   |
| 1.0  | 0.44                             | 0.13    | 470   |
| 1.5  | 0.55                             | 0.17    | 384   |
| 2.0  | 0.65                             | 0.20    | 332   |
| 3.0  | 0.81                             | 0.25    | 271   |
| 6.0  | 1.22                             | 0.37    | 192   |
| 8.0  | 1.45                             | 0.44    | 166   |
| 10.0   | 1.66                             | 0.50    | 149   |
| 12.4   | 1.90                             | 0.58    | 133   |
| attenuation calculation (dB/m)                           | (0.40 x √f GHz) + (0.04 x f GHz) |         |       |
| power calculation (W)                                    | 470 / √f GHz                     |         |       |

Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x √f (GHz)

| ENVIRONMENTAL CHARACTERISTICS |                           |               |
|-------------------------------|---------------------------|---------------|
| operating temperature range   | -55 / +200 °C             | -67 / +392 °F |
| fire resistance               | yes (CSA FT6 / IEC 332-2) |               |
| halogen free                  | NO                        |               |



## FLEXIBLE CABLE RG142

(MIL-C-17/60 -RG142)

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$  )

| <u><b>FLEXIBLE CABLE RG142 ASSEMBLES</b></u> |                                     |                   |                      |   |
|--|-------------------------------------|-------------------|----------------------|---|
| SKU  | Model                               | End A - Connector | End B - Connector    | Photo   |
| <a href="#">00-0305</a>                      | N male to N male RG142-XX.XX(M)     | N male straight   | N male straight      |    |
| <a href="#">00-0306</a>                      | N male to N female RG142-XX.XX(M))  | N male straight   | N female BH straight |   |
| <a href="#">00-0336</a>                      | N male to SMA male RG142-XX.XX(M)   | N male straight   | SMA male straight    |  |
| <a href="#">00-0307</a>                      | N male to BNC male RG142-XX.XX(M)   | N male straight   | BNC male straight    |  |
| <a href="#">00-0308</a>                      | SMA male to SMA male RG142-XX.XX(M) | SMA male straight | SMA male straight    |  |
| <a href="#">00-0313</a>                      | TNC male to TNC male RG142-XX.XX(M) | TNC male straight | TNC male straight    |  |

CABLE ASSEMBLIES



## CONNECTOR SELECTION ( FOR RG142 CABLE)

| CONNECTOR SELECTION ( FOR RG142 CABLE) |                       |                                   |                 |               |                           |
|--|-----------------------|-----------------------------------|-----------------|---------------|---------------------------|
| SKU                                    | Connector Type Series | Interface                         | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |
| 01-0366                                | N                     | Male Straight, Crimp              | 6               | 50            | Commercial                |
| 01-0314                                | N                     | Male Right Angle, crimp           | 6               | 50            | Commercial                |
| 01-0355                                | N                     | Male Straight, Clamp              | 6               | 50            | Commercial                |
| 01-0338                                | N                     | Male straight, Reversed polar,    | 3               | 50            | Commercial                |
| 01-0336                                | N                     | Female Straight, Crimp,           | 6               | 50            | Commercial                |
| 01-0335                                | N                     | Female, Bulkhead, Straight, Crimp | 6               | 50            | Commercial                |
| 01-0405                                | SMA                   | Male Straight, Crimp              | 11              | 50            | Commercial                |
| 01-0407                                | SMA                   | Female Straight, Crimp,           | 11              | 50            | Commercial                |
| 01-0416                                | SMA                   | Male Right Angle, crimp           | 6               | 50            | Commercial                |
| 01-0430                                | SMA                   | Male straight, Reversed polar,    | 6               | 50            | Commercial                |
| 01-0433                                | SMA                   | Female straight, Reversed polar,  | 6               | 50            | Commercial                |
| 01-0506                                | TNC                   | Male Straight, Crimp              | 6               | 50            | Commercial                |
| 01-0517                                | TNC                   | Female straight, crimp,           | 6               | 50            | Commercial                |
| 01-0202                                | BNC                   | Male Straight, Crimp              | 4               | 50            | Commercial                |
| 01-0215                                | BNC                   | Male Right Angle, crimp           | 4               | 50            | Commercial                |
| 01-0235                                | BNC                   | Female, Bulkhead, Straight, Crimp | 4               | 50            | Commercial                |
| 01-0830                                | FME                   | Male Straight, Crimp              | 4               | 50            | Commercial                |
| 01-0831                                | FME                   | Female straight, crimp,           | 4               | 50            | Commercial                |
| 01-0823                                | SMB                   | Male Right Angle, crimp           | 6               | 50            | Commercial                |
| 01-0609                                | UHF                   | Male Right Angle, crimp           | 2               | 50            | Commercial                |
| 01-0607                                | UHF                   | Female straight, crimp,           | 2               | 50            | Commercial                |

## FLEXIBLE CABLE RG400

(MIL-C-17/128 -RG400)

### Application:

Due to its stranded inner conductor, RG 400 is much more flexible than RG142 and RG223. This cable will be chosen instead of equivalent RG's for specific applications requiring high flexibility Usable in severe thermal conditions.



| CONSTRUCTION / DIMENSIONS |                |      |        |
|---------------------------|----------------|------|--------|
|                           | material       | mm   | inches |
| Center conductor          | Solid SPC(1)   | 0.98 | 0.039  |
| Dielectric                | solid PTFE (2) | 2.95 | 0.116  |
| Inner shield              | SPC (3) braid  | -    | -      |
| Outer shield              | SPC (3) braid  | 4.19 | 0.165  |
| Jacket black              | Brown FEP(4)   | 4.95 | 0.195  |

- (1) SPCCS= Silver Plated Copper
- (2) PTFE = Polytetrafluoroethylene
- (3) SPC = Silver plated copper
- (4) FEP = Fluorinated Ethylene Propylene

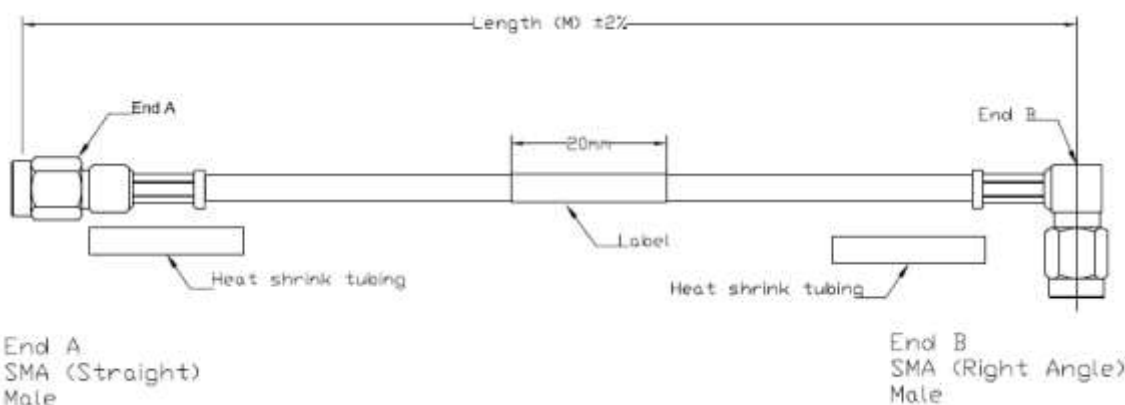
| ELECTRICAL CHARACTERISTICS |                           |
|----------------------------|---------------------------|
| characteristic impedance   | 50Ω ± 2Ω                  |
| operating frequency range  | DC – 12.4 GHz             |
| shielding effectiveness    | 65 dB (DC-3GHz)           |
| voltage withstanding       | 5 000 V rms               |
| peak power                 | 3.4 kW                    |
| capacitance                | 96 pF / m    29.3 pF / ft |
| velocity of propagation    | 70 % (4.8 ns / m)         |

Note: typical VSWR for the cable assembly  
VSWR=1.2:1 @3GHz

| MECHANICAL CHARACTERISTICS         |          |                 |
|------------------------------------|----------|-----------------|
| recommended minimum bending radius | 20 mm    | 0.79 inch       |
| weight                             | 66 g / m | 0.0442 lbs / ft |

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                  |         |       |
|--|----------------------------------|---------|-------|
| GHz  | dB/ m                            | dB / ft | Watts |
| 0.5  | 0.36                             | 0.11    | 665   |
| 1.0  | 0.52                             | 0.16    | 470   |
| 1.5  | 0.65                             | 0.20    | 384   |
| 2.0  | 0.76                             | 0.23    | 332   |
| 3.0  | 0.95                             | 0.29    | 271   |
| 6.0  | 1.42                             | 0.43    | 192   |
| 8.0  | 1.68                             | 0.51    | 166   |
| 10.0   | 1.92                             | 0.58    | 149   |
| 12.4   | 2.19                             | 0.66    | 133   |
| attenuation calculation (dB/m)                           | (0.48 x √f GHz) + (0.04 x f GHz) |         |       |
| power calculation (W)                                    | 470 / √f GHz                     |         |       |

| ENVIRONMENTAL CHARACTERISTICS |                           |               |
|-------------------------------|---------------------------|---------------|
| operating temperature range   | -55 / +200 °C             | -67 / +392 °F |
| fire resistance               | yes (CSA FT6 / IEC 332-2) |               |
| halogen free                  | NO                        |               |



CUSTOM RG400 Cable Assembly

## FLEXIBLE CABLE RG400 (MIL-C-17/128 -RG400)

TYPE COAX CABLE  
CONNECTOR ON END A  
CONNECTOR ON END B  
LENGTH: Standard = overall length ( or please specify if length  
between references planes )  
length tolerance (standard = ±2% )

### Common RG400 Cable Assemblies



[N male to N male  
RG400-xx.x\(M\)](#)



[N male to RP-SMA male  
RG400-xx.x\(M\)](#)



[N male to SMA male  
RG400-xx.x\(M\)](#)



[N female to N male  
RG400-xx.x\(M\)](#)



[N female to SMA male RG400-  
xx.x\(M\)](#)



[N female to SMA male-RA  
RG400-xx.x\(M\)](#)



[N male to TNC male  
RG400-xx.x\(M\)](#)



[N female to UHF male  
RG400-xx.x\(M\)](#)



[N female to RP-SMA male  
RG400-xx.x\(M\)](#)



[RP-SMA male to RP-SMA  
female RG400-xx.x\(M\)](#)



[SMA male to SMA male  
RG400-xx.x\(M\)](#)



[SMA male to SMA female  
RG400-xx.x\(M\)](#)



[BNC male to BNC male  
RG400-xx.x\(M\)](#)



[TNC male to TNC male  
RG400-xx.x\(M\)](#)



[TNC male to SMA male  
RG400-xx.x\(M\)](#)



[TNC male to RP-TNC male  
RG400-xx.x\(M\)](#)

## CONNECTOR SELECTION (FOR RG400 CABLE)

| CONNECTOR SELECTION ( FOR RG400 CABLE) |                       |                                   |                 |               |                           |
|--|-----------------------|-----------------------------------|-----------------|---------------|---------------------------|
| SKU                                    | Connector Type Series | Interface                         | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |
| 01-0366                                | N                     | Male Straight, Crimp              | 6               | 50            | Commercial                |
| 01-0314                                | N                     | Male Right Angle, crimp           | 6               | 50            | Commercial                |
| 01-0355                                | N                     | Male Straight, Clamp              | 6               | 50            | Commercial                |
| 01-0338                                | N                     | Male straight, Reversed polar,    | 3               | 50            | Commercial                |
| 01-0336                                | N                     | Female Straight, Crimp,           | 6               | 50            | Commercial                |
| 01-0335                                | N                     | Female, Bulkhead, Straight, Crimp | 6               | 50            | Commercial                |
| 01-0405                                | SMA                   | Male Straight, Crimp              | 11              | 50            | Commercial                |
| 01-0407                                | SMA                   | Female Straight, Crimp,           | 11              | 50            | Commercial                |
| 01-0416                                | SMA                   | Male Right Angle, crimp           | 6               | 50            | Commercial                |
| 01-0430                                | SMA                   | Male straight, Reversed polar,    | 6               | 50            | Commercial                |
| 01-0433                                | SMA                   | Female straight, Reversed polar,  | 6               | 50            | Commercial                |
| 01-0506                                | TNC                   | Male Straight, Crimp              | 6               | 50            | Commercial                |
| 01-0517                                | TNC                   | Female straight, crimp,           | 6               | 50            | Commercial                |
| 01-0202                                | BNC                   | Male Straight, Crimp              | 4               | 50            | Commercial                |
| 01-0215                                | BNC                   | Male Right Angle, crimp           | 4               | 50            | Commercial                |
| 01-0235                                | BNC                   | Female, Bulkhead, Straight, Crimp | 4               | 50            | Commercial                |
| 01-0830                                | FME                   | Male Straight, Crimp              | 4               | 50            | Commercial                |
| 01-0831                                | FME                   | Female straight, crimp,           | 4               | 50            | Commercial                |
| 01-0823                                | SMB                   | Male Right Angle, crimp           | 6               | 50            | Commercial                |
| 01-0609                                | UHF                   | Male Right Angle, crimp           | 2               | 50            | Commercial                |
| 01-0607                                | UHF                   | Female straight, crimp,           | 2               | 50            | Commercial                |

## FLEXIBLE CABLE RG223

(MIL-C-17/84 -RG223)



(MIL-C-17/84 -RG223)

### Application:

RG223 is one of the most popular RG cables. This cable presents a good compromise between flexibility and electrical performances.

RG223 can be used instead of RG142 for cost reasons in applications that do not require high temperature resistance.

| CONSTRUCTION / DIMENSIONS |               |      |        |
|---------------------------|---------------|------|--------|
|                           | material      | mm   | inches |
| Center conductor          | Solid SPC(1)  | 0.89 | 0.035  |
| Dielectric                | solid PE (2)  | 2.95 | 0.116  |
| Inner shield              | SPC (1) braid | -    | -      |
| Outer shield              | SPC (1) braid | 4.19 | 0.165  |
| Jacket black              | Black PVC(3)  | 5.38 | 0.212  |

- (1) SPC = Silver Plated Copper
- (2) PE = Polyethylene
- (3) PVC = Polyvinyl Chloride

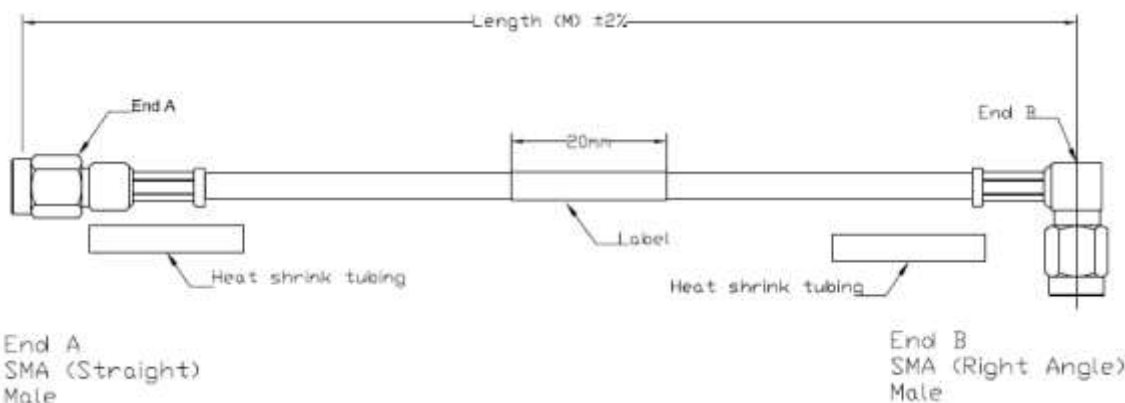
| ELECTRICAL CHARACTERISTICS |                           |
|----------------------------|---------------------------|
| characteristic impedance   | 50Ω ± 2Ω                  |
| operating frequency range  | DC – 12.4 GHz             |
| shielding effectiveness    | 65 dB (DC-3GHz)           |
| voltage withstanding       | 5 000 V rms               |
| peak power                 | 3.4 kW                    |
| capacitance                | 96 pF / m    29.3 pF / ft |
| velocity of propagation    | 70 % (4.8 ns / m)         |

Note: typical VSWR for the cable assembly  
VSWR=1.2:1 @3GHz

| MECHANICAL CHARACTERISTICS         |          |                 |
|------------------------------------|----------|-----------------|
| recommended minimum bending radius | 25 mm    | 0.984 inch      |
| weight                             | 55 g / m | 0.0372 lbs / ft |

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                  |         |       |
|--|----------------------------------|---------|-------|
| GHz  | dB / m                           | dB / ft | Watts |
| 0.5  | 0.32                             | 0.10    | 71    |
| 1.0  | 0.46                             | 0.14    | 50    |
| 1.5  | 0.57                             | 0.17    | 41    |
| 2.0  | 0.67                             | 0.20    | 35    |
| 3.0  | 0.85                             | 0.26    | 29    |
| 6.0  | 1.27                             | 0.38    | 20    |
| 8.0  | 1.51                             | 0.46    | 18    |
| 10.0   | 1.73                             | 0.52    | 16    |
| 12.4   | 1.97                             | 0.60    | 14    |
| attenuation calculation (dB/m)                           | (0.42 x √f GHz) + (0.04 x f GHz) |         |       |
| power calculation (W)                                    | 50 / √f GHz                      |         |       |

| ENVIRONMENTAL CHARACTERISTICS |              |               |
|-------------------------------|--------------|---------------|
| operating temperature range   | -40 / +85 °C | -40 / +185 °F |
| fire resistance               | No           |               |
| halogen free                  | No           |               |



CUSTOM RG223 Cable Assembly

## FLEXIBLE CABLE RG223 (MIL-C-17/84-RG223)

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$  )

### Custom RG223 Cable Assemblies



[N male to N male  
RG223-xx.x\(M\)](#)



[N male to N female RG223-  
xx.x\(M\)](#)



[N male to SMA male RG223-  
xx.x\(M\)](#)



[N male to RP-SMA- male  
RG223-xx.x\(M\)](#)



[BNC male to BNC male RG223-  
xx.x\(M\)](#)



[SMA male to SMA male-  
RG223-xx.x\(M\)](#)



[SMA male to SMA female  
RG223-xx.x\(M\)](#)



[BNC male to SMA male RG400-  
xx.x\(M\)](#)



[N female to SMA male RG223-  
xx.x\(M\)](#)



[N male to TNC male RG223-  
xx.x\(M\)](#)

## CONNECTOR SELECTION (FOR RG223 CABLE)

| CONNECTOR SELECTION ( FOR RG223 CABLE) |                       |                                   |                 |                        |                           |
|--|-----------------------|-----------------------------------|-----------------|------------------------|---------------------------|
| SKU                                    | Connector Type Series | Interface                         | Frequency (GHz) | Impedance ( $\Omega$ ) | Classic level ( Mil Spec) |
| 01-0366                                | N                     | Male Straight, Crimp              | 6               | 50                     | Commercial                |
| 01-0314                                | N                     | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0355                                | N                     | Male Straight, Clamp              | 6               | 50                     | Commercial                |
| 01-0338                                | N                     | Male straight, Reversed polar,    | 3               | 50                     | Commercial                |
| 01-0336                                | N                     | Female Straight, Crimp,           | 6               | 50                     | Commercial                |
| 01-0335                                | N                     | Female, Bulkhead, Straight, Crimp | 6               | 50                     | Commercial                |
| 01-0405                                | SMA                   | Male Straight, Crimp              | 11              | 50                     | Commercial                |
| 01-0407                                | SMA                   | Female Straight, Crimp,           | 11              | 50                     | Commercial                |
| 01-0416                                | SMA                   | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0430                                | SMA                   | Male straight, Reversed polar,    | 6               | 50                     | Commercial                |
| 01-0433                                | SMA                   | Female straight, Reversed polar,  | 6               | 50                     | Commercial                |
| 01-0506                                | TNC                   | Male Straight, Crimp              | 6               | 50                     | Commercial                |
| 01-0517                                | TNC                   | Female straight, crimp,           | 6               | 50                     | Commercial                |
| 01-0202                                | BNC                   | Male Straight, Crimp              | 4               | 50                     | Commercial                |
| 01-0215                                | BNC                   | Male Right Angle, crimp           | 4               | 50                     | Commercial                |
| 01-0235                                | BNC                   | Female, Bulkhead, Straight, Crimp | 4               | 50                     | Commercial                |
| 01-0830                                | FME                   | Male Straight, Crimp              | 4               | 50                     | Commercial                |
| 01-0831                                | FME                   | Female straight, crimp,           | 4               | 50                     | Commercial                |
| 01-0823                                | SMB                   | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0609                                | UHF                   | Male Right Angle, crimp           | 2               | 50                     | Commercial                |
| 01-0607                                | UHF                   | Female straight, crimp,           | 2               | 50                     | Commercial                |

## FLEXIBLE CABLE RG213

(MIL-C-17/74 -RG213)



(MIL-C-17/74 -RG213)

### Application:

Due to its construction and raw materials selection, RG213 is a cost effectiveness solution in the 10 mm cable range. This cable may be considered for low frequencies applications that do not require a high level of screening effectiveness.

| CONSTRUCTION / DIMENSIONS |                 |      |        |
|---------------------------|-----------------|------|--------|
|                           | material        | mm   | inches |
| Center conductor          | Stranded copper | 2.26 | 0.089  |
| Dielectric                | solid PE (2)    | 7.24 | 0.285  |
| Inner shield              | Copper braid    | 8.13 | 0.320  |
| Outer shield              | -               | -    | -      |
| Jacket black              | Black PVC       | 10.3 | 0.406  |

- (1) PE = Polyethylene
- (2) PVC = Polyvinyl Chloride

| ELECTRICAL CHARACTERISTICS |                             |
|----------------------------|-----------------------------|
| characteristic impedance   | 50Ω ± 2Ω                    |
| operating frequency range  | DC – 1.0 GHz                |
| shielding effectiveness    | 40 dB (DC-3GHz)             |
| voltage withstanding       | 10 000 V rms                |
| peak power                 | 6.5 kW                      |
| capacitance                | 96 pF / m      29.3 pF / ft |
| velocity of propagation    | 66 % (5.0 ns / m)           |

Note: typical VSWR for the cable assembly  
VSWR=1.2:1 @3GHz

| MECHANICAL CHARACTERISTICS         |           |                 |
|------------------------------------|-----------|-----------------|
| recommended minimum bending radius | 40 mm     | 1.57 inch       |
| weight                             | 148 g / m | 0.0998 lbs / ft |

| ENVIRONMENTAL CHARACTERISTICS |              |               |
|-------------------------------|--------------|---------------|
| operating temperature range   | -40 / +85 °C | -40 / +185 °F |
| fire resistance               | No           |               |
| halogen free                  | No           |               |

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                 |         |       |
|--|---------------------------------|---------|-------|
| GHz  | dB/ m                           | dB / ft | Watts |
| 0.05   | 0.05                            | 0.01    | 1273  |
| 0.1  | 0.07                            | 0.02    | 900   |
| 0.2  | 0.10                            | 0.03    | 735   |
| 0.3  | 0.12                            | 0.04    | 636   |
| 0.5  | 0.16                            | 0.05    | 520   |
| 0.6  | 0.18                            | 0.05    | 367   |
| 0.7  | 0.20                            | 0.06    | 318   |
| 0.8  | 0.21                            | 0.06    | 285   |
| 1.0  | 0.24                            | 0.07    | 271   |
| attenuation calculation (dB/m)                           | (0.2 x √f GHz) + (0.04 x f GHz) |         |       |
| power calculation (W)                                    | 900 / √f GHz                    |         |       |

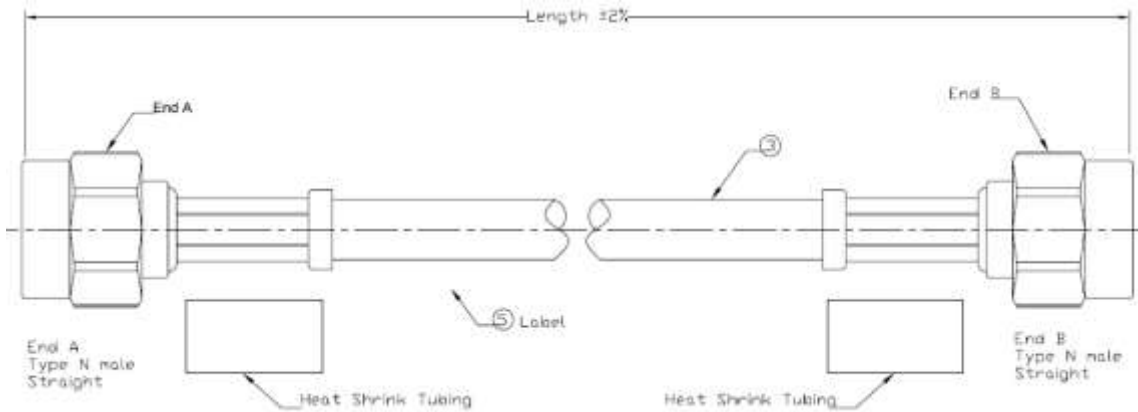
Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x √f (GHz)

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)



## FLEXIBLE CABLE RG213 (MIL-C-17/74 -RG213)



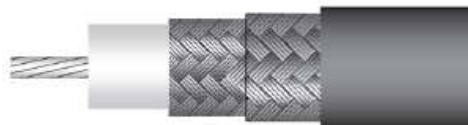
CABLE ASSEMBLIES

## COAX CONNECTOR SELECTION GUIDE FOR CABLE RG213 ASSEMBLES

| CONNECTOR SELECTION TABLE ( FOR RG213 CABLE) |                       |                           |                 |               |                           |  |
|--|-----------------------|---------------------------|-----------------|---------------|---------------------------|--|
| SKU  | Connector Type Series | Interface                 | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |  |
| <a href="#">01-0317</a>                      | N                     | Male Straight, Crimp, Hex | 6               | 50            | Commercial                |  |
| <a href="#">01-0319</a>                      | N                     | Male Right Angle, crimp   | 6               | 50            | Commercial                |  |
| <a href="#">01-0301</a>                      | N                     | Male Straight, Clamp      | 6               | 50            | Commercial                |  |
| <a href="#">01-0326</a>                      | N                     | Female straight, crimp,   | 6               | 50            | Commercial                |  |
| <a href="#">01-0308</a>                      | N                     | Female Straight, Clamp,   | 6               | 50            | Commercial                |  |
| <a href="#">01-0400</a>                      | SMA                   | Male Straight, Crimp      | 6               | 50            | Commercial                |  |
| <a href="#">01-0512</a>                      | TNC                   | Male Straight, Crimp      | 6               | 50            | Commercial                |  |
| <a href="#">01-0514</a>                      | TNC                   | Female straight, crimp,   | 6               | 50            | Commercial                |  |
| <a href="#">01-0212</a>                      | BNC                   | Male Straight, Clamp      | 4               | 50            | Commercial                |  |
| <a href="#">01-0611</a>                      | UHF                   | Male Straight, Crimp      | 2               | 50            | Commercial                |  |
| <a href="#">01-0608</a>                      | UHF                   | Male Straight, Clamp      | 2               | 50            | Commercial                |  |

## FLEXIBLE CABLE RG214

(MIL-C-17/75 –RG214)



(MIL-C-17/75 –RG214)

### Application:

RG214 is one of the most popular RG cables. For economic reasons and when thermal conditions allow it, this cable may be used instead of RG393.

| CONSTRUCTION / DIMENSIONS |                 |      |        |
|---------------------------|-----------------|------|--------|
|                           | material        | mm   | inches |
| Center conductor          | Stranded copper | 2.26 | 0.089  |
| Dielectric                | Solid PE (2)    | 7.24 | 0.285  |
| Inner shield              | Copper braid    | -    | -      |
| Outer shield              | Copper braid    | 8.89 | 0.35   |
| Jacket black              | Black PVC       | 10.3 | 0.406  |

- (1) PE = Polyethylene  
(2) PVC = Polyvinyl Chloride

| ELECTRICAL CHARACTERISTICS |                           |
|----------------------------|---------------------------|
| characteristic impedance   | 50Ω ± 2Ω                  |
| operating frequency range  | DC – 6 GHz                |
| shielding effectiveness    | 65 dB (DC-3GHz)           |
| voltage withstanding       | 10 000 V rms              |
| peak power                 | 6.5 kW                    |
| capacitance                | 96 pF / m    29.3 pF / ft |
| velocity of propagation    | 66 % (5.0 ns / m)         |

Note: typical VSWR for the cable assembly  
VSWR=1.2:1 @3GHz

| MECHANICAL CHARACTERISTICS         |           |                 |
|------------------------------------|-----------|-----------------|
| recommended minimum bending radius | 40 mm     | 1.57 inch       |
| weight                             | 174 g / m | 0.1170 lbs / ft |

| ENVIRONMENTAL CHARACTERISTICS |              |               |
|-------------------------------|--------------|---------------|
| operating temperature range   | -40 / +85 °C | -40 / +185 °F |
| fire resistance               | No           |               |
| halogen free                  | No           |               |

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |       |         |       |
|--|-------|---------|-------|
| GHz  | dB/ m | dB / ft | Watts |
| 0.5  | 0.16  | 0.05    | 255   |
| 1.0  | 0.24  | 0.07    | 180   |
| 1.5  | 0.30  | 0.09    | 147   |
| 2.0  | 0.36  | 0.11    | 127   |
| 3.0  | 0.47  | 0.14    | 104   |
| 6.0  | 0.73  | 0.22    | 73    |

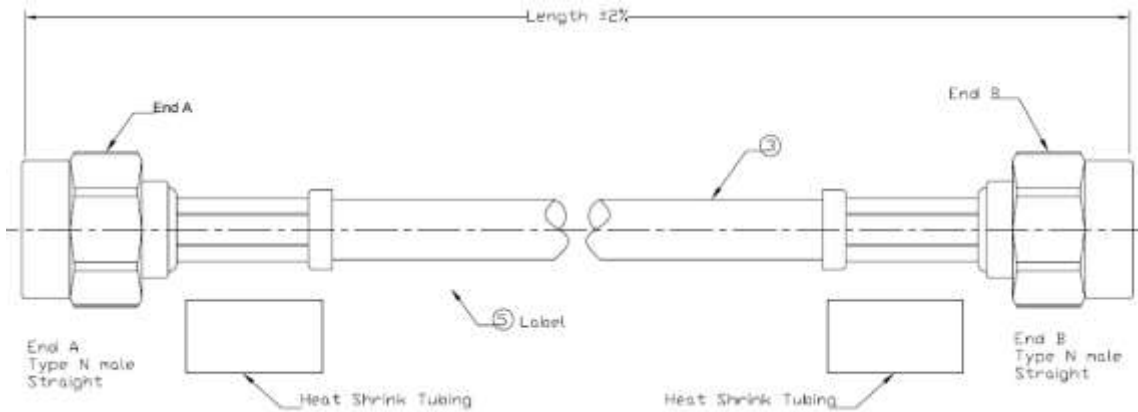
|                                |                                  |
|--------------------------------|----------------------------------|
| attenuation calculation (dB/m) | (0.20 x √f GHz) + (0.04 x f GHz) |
| power calculation (W)          | 180 / √f GHz                     |

Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x √f (GHz)

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)

## FLEXIBLE CABLE RG214 (MIL-C-17/75 -RG214)



## COAX CONNECTOR SELECTION GUIDE FOR CABLE RG214 ASSEMBLES

CABLE ASSEMBLIES

| CONNECTOR SELECTION TABLE ( FOR RG214 CABLE) |                       |                           |                 |               |                           |  |
|--|-----------------------|---------------------------|-----------------|---------------|---------------------------|--|
| SKU  | Connector Type Series | Interface                 | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |  |
| <a href="#">01-0317</a>                      | N                     | Male Straight, Crimp, Hex | 6               | 50            | Commercial                |  |
| <a href="#">01-0319</a>                      | N                     | Male Right Angle, crimp   | 6               | 50            | Commercial                |  |
| <a href="#">01-0301</a>                      | N                     | Male Straight, Clamp      | 6               | 50            | Commercial                |  |
| <a href="#">01-0326</a>                      | N                     | Female straight, crimp,   | 6               | 50            | Commercial                |  |
| <a href="#">01-0308</a>                      | N                     | Female Straight, Clamp,   | 6               | 50            | Commercial                |  |
| <a href="#">01-0400</a>                      | SMA                   | Male Straight, Crimp      | 6               | 50            | Commercial                |  |
| <a href="#">01-0512</a>                      | TNC                   | Male Straight, Crimp      | 6               | 50            | Commercial                |  |
| <a href="#">01-0514</a>                      | TNC                   | Female straight, crimp,   | 6               | 50            | Commercial                |  |
| <a href="#">01-0212</a>                      | BNC                   | Male Straight, Clamp      | 4               | 50            | Commercial                |  |
| <a href="#">01-0611</a>                      | UHF                   | Male Straight, Crimp      | 2               | 50            | Commercial                |  |
| <a href="#">01-0608</a>                      | UHF                   | Male Straight, Clamp      | 2               | 50            | Commercial                |  |

## LOW LOSS FLEXIBLE CABLE LMR195

(CABLE GROUP 0.195/50)



(CABLE GROUP 0.195/50)

### Application:

The foam dielectric provides excellent loss and low return loss levels. The double screen construction (Aluminium foil + tinned copper braid) offers a high level of shielding as well as low leakage. This cable will be advised for feeder and jumper assemblies in cellular networks as well as applications requiring easy routing.

| CONSTRUCTION / DIMENSIONS |              |      |        |
|---------------------------|--------------|------|--------|
|                           | material     | mm   | inches |
| Center conductor          | Solid copper | 0.94 | 0.037  |
| Dielectric                | Foam PE (1)  | 2.79 | 0.110  |
| Inner shield              | AL (3) foil  | 2.95 | 0.116  |
| Outer shield              | TC (3) braid | 3.53 | 0.39   |
| Jacket black              | Black PE(1)  | 4.95 | 0.195  |

- (1) PE = Polyethylene
- (2) AL = Aluminium
- (3) TC = Tinned Copper

| ELECTRICAL CHARACTERISTICS |                             |
|----------------------------|-----------------------------|
| characteristic impedance   | 50Ω ± 2Ω                    |
| operating frequency range  | DC – 6 GHz                  |
| shielding effectiveness    | >90 dB                      |
| voltage withstanding       | 1 000 V rms                 |
| peak power                 | 2.5 kW                      |
| capacitance                | 80.3 pF / m    24.5 pF / ft |
| velocity of propagation    | 83 % (4.0 ns / m)           |

Note: typical VSWR for the cable assembly  
VSWR=1.2:1 @3GHz

| MECHANICAL CHARACTERISTICS         |          |                |
|------------------------------------|----------|----------------|
| recommended minimum bending radius | 12.5 mm  | 0.49 inch      |
| weight                             | 28 g / m | 0.021 lbs / ft |

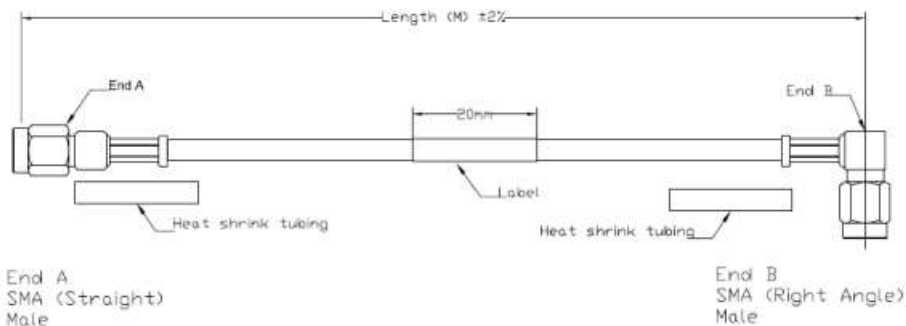
| ENVIRONMENTAL CHARACTERISTICS |                |               |
|-------------------------------|----------------|---------------|
| operating temperature range   | -40 / +85 °C   | -40 / +185 °F |
| fire resistance               | no             |               |
| halogen free                  | YES, LMR195-FR |               |

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                    |         |       |
|--|------------------------------------|---------|-------|
| GHz  | dB / m                             | dB / ft | Watts |
| 0.1  | 0.12                               | 0.03    | 557   |
| 0.5  | 0.25                               | 0.07    | 238   |
| 1.0  | 0.36                               | 0.11    | 169   |
| 1.5  | 0.44                               | 0.14    | 138   |
| 2.0  | 0.51                               | 0.16    | 118   |
| 2.5  | 0.57                               | 0.18    | 108   |
| 3.0  | 0.64                               | 0.19    | 98    |
| 4.0  | 0.74                               | 0.24    | 78    |
| 5.0  | 0.83                               | 0.26    | 67    |
| 6.0  | 0.93                               | 0.30    | 63    |
| attenuation calculation (dB/m)                           | (0.336 x vf GHz) + (0.011 x f GHz) |         |       |

Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x vf (GHz)

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)



## LOW LOSS FLEXIBLE CABLE LMR195 (CABLE GROUP 0.195/50)



[N male to N male  
LMR195-xx.x\(M\)](#)



[N male to RP-SMA male  
LMR195-xx.x\(M\)](#)



[N male to SMA male  
LMR195-xx.x\(M\)](#)



[N male to RA-SMA male  
LMR195-xx.x\(M\)](#)



[N female to SMA male  
LMR195-xx.x\(M\)](#)



[N female to SMA male-RA  
LMR195-xx.x\(M\)](#)



[N male to TNC male  
LMR195-xx.x\(M\)](#)



[N male to RP-TNC male  
LMR195-xx.x\(M\)](#)



[N female to RP-SMA male  
LMR195-xx.x\(M\)](#)



[RP-SMA male to RP-SMA  
female LMR195-xx.x\(M\)](#)



[SMA male to SMA male  
LMR195-xx.x\(M\)](#)



[SMA male to SMA female  
LMR195-xx.x\(M\)](#)



[BNC male to BNC male  
LMR195-xx.x\(M\)](#)



[TNC male to TNC male  
LMR195-xx.x\(M\)](#)



[INC male to SMA male  
LMR195-xx.x\(M\)](#)

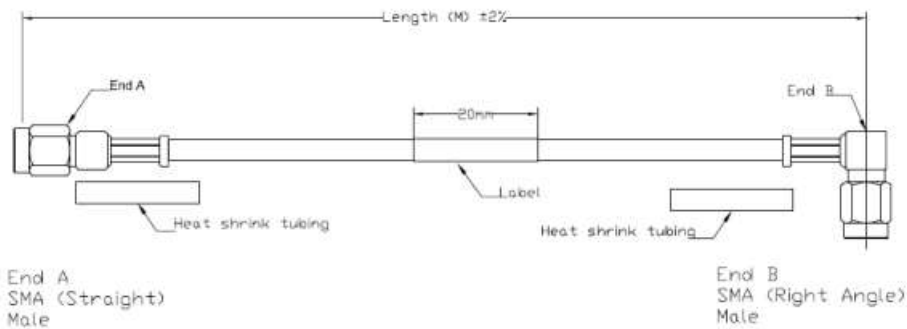


[RP-TNC male to RP-TNC  
male LMR195-xx.x\(M\)](#)

## LOW LOSS FLEXIBLE CABLE LMR195 (CABLE GROUP 0.195/50)

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$  )

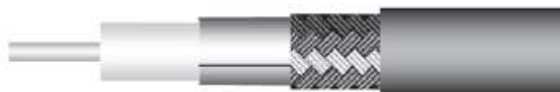


## COAX CONNECTOR SELECTION GUIDE FOR CABLE LMR195 ASSEMBLES

| CONNECTOR SELECTION ( FOR LMR195 CABLE) |                       |                                   |                 |                        |                           |
|---|-----------------------|-----------------------------------|-----------------|------------------------|---------------------------|
| SKU                                     | Connector Type Series | Interface                         | Frequency (GHz) | Impedance ( $\Omega$ ) | Classic level ( Mil Spec) |
| 01-0366                                 | N                     | Male Straight, Crimp              | 6               | 50                     | Commercial                |
| 01-0314                                 | N                     | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0355                                 | N                     | Male Straight, Clamp              | 6               | 50                     | Commercial                |
| 01-0338                                 | N                     | Male straight, Reversed polar,    | 3               | 50                     | Commercial                |
| 01-0336                                 | N                     | Female Straight, Crimp,           | 6               | 50                     | Commercial                |
| 01-0335                                 | N                     | Female, Bulkhead, Straight, Crimp | 6               | 50                     | Commercial                |
| 01-0405                                 | SMA                   | Male Straight, Crimp              | 11              | 50                     | Commercial                |
| 01-0407                                 | SMA                   | Female Straight, Crimp,           | 11              | 50                     | Commercial                |
| 01-0416                                 | SMA                   | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0430                                 | SMA                   | Male straight, Reversed polar,    | 6               | 50                     | Commercial                |
| 01-0433                                 | SMA                   | Female straight, Reversed polar,  | 6               | 50                     | Commercial                |
| 01-0506                                 | TNC                   | Male Straight, Crimp              | 6               | 50                     | Commercial                |
| 01-0517                                 | TNC                   | Female straight, crimp,           | 6               | 50                     | Commercial                |
| 01-0202                                 | BNC                   | Male Straight, Crimp              | 4               | 50                     | Commercial                |
| 01-0215                                 | BNC                   | Male Right Angle, crimp           | 4               | 50                     | Commercial                |
| 01-0235                                 | BNC                   | Female, Bulkhead, Straight, Crimp | 4               | 50                     | Commercial                |
| 01-0830                                 | FME                   | Male Straight, Crimp              | 4               | 50                     | Commercial                |
| 01-0831                                 | FME                   | Female straight, crimp,           | 4               | 50                     | Commercial                |
| 01-0823                                 | SMB                   | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0609                                 | UHF                   | Male Right Angle, crimp           | 2               | 50                     | Commercial                |
| 01-0607                                 | UHF                   | Female straight, crimp,           | 2               | 50                     | Commercial                |

## LOW LOSS FLEXIBLE CABLE LMR200

(CABLE GROUP 0.200/50)



(CABLE GROUP 0.200/50)

### Application:

The foam dielectric provides excellent loss and low return loss levels. The double screen construction (Aluminium foil + tinned copper braid) offers a high level of shielding as well as low leakage. This cable will be advised for feeder and jumper assemblies in cellular networks as well as applications requiring easy routing.

| CONSTRUCTION / DIMENSIONS |              |      |        |
|---------------------------|--------------|------|--------|
|                           | material     | mm   | inches |
| Center conductor          | Solid copper | 1.12 | 0.044  |
| Dielectric                | Foam PE (1)  | 2.79 | 0.110  |
| Inner shield              | AL (3) foil  | 2.95 | 0.116  |
| Outer shield              | TC (3) braid | 3.53 | 0.39   |
| Jacket black              | Black PE(1)  | 4.95 | 0.195  |

- (1) PE = Polyethylene
- (2) AL = Aluminium
- (3) TC = Tinned Copper

| ELECTRICAL CHARACTERISTICS |                             |
|----------------------------|-----------------------------|
| characteristic impedance   | 50Ω ± 2Ω                    |
| operating frequency range  | DC – 6 GHz                  |
| shielding effectiveness    | >90 dB                      |
| voltage withstanding       | 1 000 V rms                 |
| peak power                 | 2.5 kW                      |
| capacitance                | 80.3 pF / m    24.5 pF / ft |
| velocity of propagation    | 83 % (4.0 ns / m)           |

Note: typical VSWR for the cable assembly  
VSWR=1.2:1 @3GHz

| MECHANICAL CHARACTERISTICS         |          |                |
|------------------------------------|----------|----------------|
| recommended minimum bending radius | 12.5 mm  | 0.49 inch      |
| weight                             | 28 g / m | 0.021 lbs / ft |

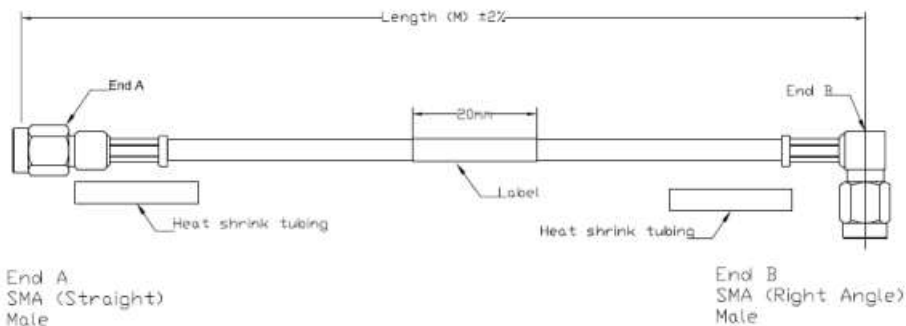
| ENVIRONMENTAL CHARACTERISTICS |                |               |
|-------------------------------|----------------|---------------|
| operating temperature range   | -40 / +85 °C   | -40 / +185 °F |
| fire resistance               | no             |               |
| halogen free                  | YES, lmr200-FR |               |

| FREQUENCY / ATTENUATION        |                                    |         |       |
|--------------------------------|------------------------------------|---------|-------|
| MAX POWER (sea level / 25 °C)  |                                    |         |       |
| GHz                            | dB / m                             | dB / ft | Watts |
| 0.1                            | 0.11                               | 0.03    | 560   |
| 0.5                            | 0.24                               | 0.07    | 240   |
| 1.0                            | 0.34                               | 0.10    | 170   |
| 1.5                            | 0.42                               | 0.13    | 140   |
| 2.0                            | 0.49                               | 0.15    | 120   |
| 2.5                            | 0.55                               | 0.17    | 110   |
| 3.0                            | 0.61                               | 0.18    | 100   |
| 4.0                            | 0.71                               | 0.22    | 80    |
| 5.0                            | 0.80                               | 0.24    | 70    |
| 6.0                            | 0.88                               | 0.27    | 65    |
| attenuation calculation (dB/m) | (0.333 x √f GHz) + (0.011 x f GHz) |         |       |

Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x √f (GHz)

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)



## LOW LOSS FLEXIBLE CABLE LMR200 (CABLE GROUP 0.200/50)



[N male to N male  
LMR200-xx.x\(M\)](#)



[RP-TNC male to RA-SMA male  
LMR200-xx.x\(M\)](#)



[N male to SMA male  
LMR200-xx.x\(M\)](#)



[N female to RA-TNC male  
LMR200-xx.x\(M\)](#)



[N female to SMA male  
LMR200-xx.x\(M\)](#)



[N female to SMA male-RA  
LMR200-xx.x\(M\)](#)



[N male to TNC male  
LMR200-xx.x\(M\)](#)



[N male to RP-TNC male  
LMR200-xx.x\(M\)](#)



[UHF male to UHF male  
LMR200-xx.x\(M\)](#)



[BNC male to BNC female  
LMR200-xx.x\(M\)](#)



[SMA male to SMA male  
LMR200-xx.x\(M\)](#)



[SMA male to SMA female  
LMR200-xx.x\(M\)](#)



[BNC male to BNC male  
LMR200-xx.x\(M\)](#)



[TNC male to TNC male  
LMR200-xx.x\(M\)](#)



[LMR200-xx.x\(M\)](#)



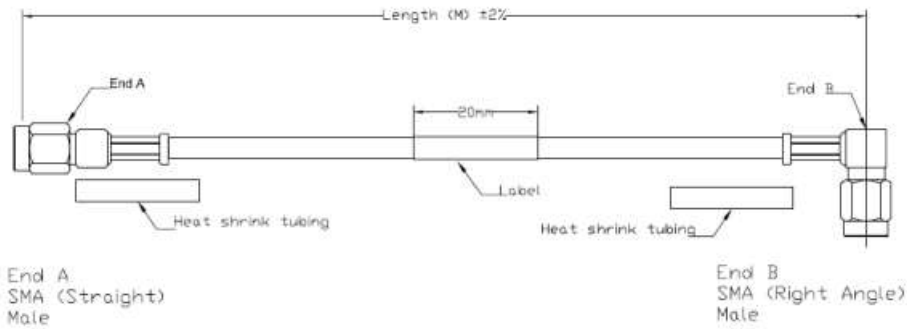
[BNC male to SMA male  
LMR200-xx.x\(M\)](#)



## LOW LOSS FLEXIBLE CABLE LMR200 (CABLE GROUP 0.200/50)

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$ )

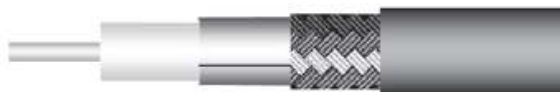


## COAX CONNECTOR SELECTION GUIDE FOR CABLE LMR200 ASSEMBLES

| CONNECTOR SELECTION ( FOR LMR200 CABLE ) |                       |                                   |                 |                        |                           |
|--|-----------------------|-----------------------------------|-----------------|------------------------|---------------------------|
| SKU                                      | Connector Type Series | Interface                         | Frequency (GHz) | Impedance ( $\Omega$ ) | Classic level ( Mil Spec) |
| 01-0366                                  | N                     | Male Straight, Crimp              | 6               | 50                     | Commercial                |
| 01-0314                                  | N                     | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0355                                  | N                     | Male Straight, Clamp              | 6               | 50                     | Commercial                |
| 01-0338                                  | N                     | Male straight, Reversed polar,    | 3               | 50                     | Commercial                |
| 01-0336                                  | N                     | Female Straight, Crimp,           | 6               | 50                     | Commercial                |
| 01-0335                                  | N                     | Female, Bulkhead, Straight, Crimp | 6               | 50                     | Commercial                |
| 01-0405                                  | SMA                   | Male Straight, Crimp              | 11              | 50                     | Commercial                |
| 01-0407                                  | SMA                   | Female Straight, Crimp,           | 11              | 50                     | Commercial                |
| 01-0416                                  | SMA                   | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0430                                  | SMA                   | Male straight, Reversed polar,    | 6               | 50                     | Commercial                |
| 01-0433                                  | SMA                   | Female straight, Reversed polar,  | 6               | 50                     | Commercial                |
| 01-0506                                  | TNC                   | Male Straight, Crimp              | 6               | 50                     | Commercial                |
| 01-0517                                  | TNC                   | Female straight, crimp,           | 6               | 50                     | Commercial                |
| 01-0202                                  | BNC                   | Male Straight, Crimp              | 4               | 50                     | Commercial                |
| 01-0215                                  | BNC                   | Male Right Angle, crimp           | 4               | 50                     | Commercial                |
| 01-0235                                  | BNC                   | Female, Bulkhead, Straight, Crimp | 4               | 50                     | Commercial                |
| 01-0830                                  | FME                   | Male Straight, Crimp              | 4               | 50                     | Commercial                |
| 01-0831                                  | FME                   | Female straight, crimp,           | 4               | 50                     | Commercial                |
| 01-0823                                  | SMB                   | Male Right Angle, crimp           | 6               | 50                     | Commercial                |
| 01-0609                                  | UHF                   | Male Right Angle, crimp           | 2               | 50                     | Commercial                |
| 01-0607                                  | UHF                   | Female straight, crimp,           | 2               | 50                     | Commercial                |

## LOW LOSS FLEXIBLE CABLE LMR240

(CABLE GROUP 0.240/50)



(CABLE GROUP 0.240/50)

### Application:

The foam dielectric provides excellent loss and low return loss levels. The double screen construction (Aluminium foil + tinned copper braid) offers a high level of shielding as well as low leakage. This cable will be advised for feeder and jumper assemblies in cellular networks as well as applications requiring easy routing.

| CONSTRUCTION / DIMENSIONS |              |      |        |
|---------------------------|--------------|------|--------|
|                           | material     | mm   | inches |
| Center conductor          | Solid copper | 1.42 | 0.056  |
| Dielectric                | Foam PE (1)  | 3.81 | 0.150  |
| Inner shield              | AL (3) foil  | 3.94 | 0.155  |
| Outer shield              | TC (3) braid | 4.52 | 0.178  |
| Jacket black              | Black PE(1)  | 6.10 | 0.240  |

- (1) PE = Polyethylene
- (2) AL = Aluminium
- (3) TC = Tinned Copper

| ELECTRICAL CHARACTERISTICS |                             |
|----------------------------|-----------------------------|
| characteristic impedance   | 50Ω ± 2Ω                    |
| operating frequency range  | DC – 6 GHz                  |
| shielding effectiveness    | >90 dB                      |
| voltage withstanding       | 1 500 V rms                 |
| peak power                 | 5.0 kW                      |
| capacitance                | 80.3 pF / m    24.5 pF / ft |
| velocity of propagation    | 83 % (4.0 ns / m)           |

Note: typical VSWR for the cable assembly  
VSWR=1.2:1 @3GHz

| MECHANICAL CHARACTERISTICS         |          |                |
|------------------------------------|----------|----------------|
| recommended minimum bending radius | 19.1 mm  | 0.75 inch      |
| weight                             | 50 g / m | 0.034 lbs / ft |

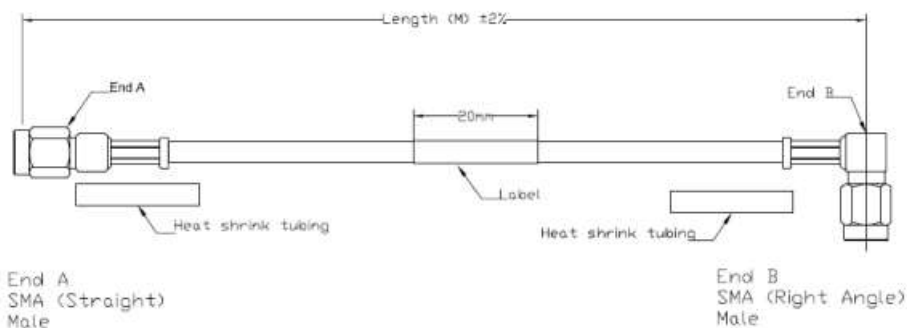
| ENVIRONMENTAL CHARACTERISTICS |                |               |
|-------------------------------|----------------|---------------|
| operating temperature range   | -40 / +85 °C   | -40 / +185 °F |
| fire resistance               | no             |               |
| halogen free                  | Yes, LMR240-FR |               |

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                     |         |       |
|--|-------------------------------------|---------|-------|
| GHz  | dB / m                              | dB / ft | Watts |
| 0.1  | 0.08                                | 0.02    | 700   |
| 0.5  | 0.15                                | 0.04    | 360   |
| 1.0  | 0.19                                | 0.07    | 250   |
| 1.5  | 0.33                                | 0.1     | 200   |
| 2.0  | 0.38                                | 0.12    | 170   |
| 2.5  | 0.43                                | 0.13    | 150   |
| 3.0  | 0.50                                | 0.15    | 140   |
| 4.0  | 0.55                                | 0.17    | 130   |
| 5.0  | 0.63                                | 0.18    | 120   |
| 6.0  | 0.68                                | 0.20    | 97    |
| attenuation calculation (dB/m)                           | (0.242 x √f GHz) + (0.0033 x f GHz) |         |       |

Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x √f (GHz)

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2% )



## LOW LOSS FLEXIBLE CABLE LMR240 (CABLE GROUP 0.240/50)



[N male to N male  
LMR240-xx.x\(M\)](#)



[N male to N female LMR240-  
xx.x\(M\)](#)



[N male to SMA male  
LMR240-xx.x\(M\)](#)



[N male to TNC male  
LMR240-xx.x\(M\)](#)



[N male to SMA female  
LMR240-xx.x\(M\)](#)



[SMA male to SMA male  
LMR240-xx.x\(M\)](#)



[SMA male to SMA female  
LMR240-xx.x\(M\)](#)



[N male to RP-TNC male  
LMR240-xx.x\(M\)](#)



[BNC male to BNC male  
LMR240-xx.x\(M\)](#)



[TNC male to TNC male  
LMR240-xx.x\(M\)](#)



[TNC male to SMA male  
LMR240-xx.x\(M\)](#)



[BNC male to SMA male  
LMR240-xx.x\(M\)](#)

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$ )

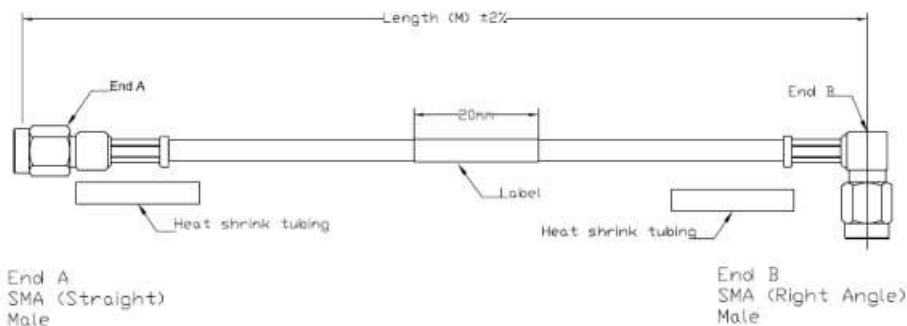
## CONNECTOR SELECTION FOR LMR240

(CABLE GROUP 0.240/50)

| CONNECTOR SELECTION ( FOR LMR240 CABLE) |                       |                                    |                 |               |                           |  |
|---|-----------------------|------------------------------------|-----------------|---------------|---------------------------|--|
| SKU                                     | Connector Type Series | Interface                          | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |  |
| 01-0365                                 | N                     | Male Straight, Crimp, Hex          | 6               | 50            | Commercial                |  |
| 01-0324                                 | N                     | Male Straight, Crimp, Hex          | 6               | 50            | Commercial                |  |
| 01-0341                                 | N                     | Male Right Angle, crimp            | 6               | 50            | Commercial                |  |
| 01-0334                                 | N                     | Female Straight, Crimp,            | 6               | 50            | Commercial                |  |
| 01-0333                                 | N                     | Female, Bulkhead, Straight, Crimp  | 6               | 50            | Commercial                |  |
| 01-0417                                 | SMA                   | Male Straight, Crimp               | 11              | 50            | Commercial                |  |
| 01-0408                                 | SMA                   | Female Straight, Crimp,            | 11              | 50            | Commercial                |  |
| 01-0453                                 | SMA                   | Male straight, Reversed polar,     | 6               | 50            | Commercial                |  |
| 01-0456                                 | SMA                   | Female straight, Reversed polar,   | 6               | 50            | Commercial                |  |
| 01-0508                                 | TNC                   | Male Straight, Crimp               | 6               | 50            | Commercial                |  |
| 01-0527                                 | TNC                   | Female straight, crimp,            | 6               | 50            | Commercial                |  |
| 01-0520                                 | TNC                   | Revered polar Male Straight, Crimp | 6               | 50            | Commercial                |  |
| 01-0206                                 | BNC                   | Male Straight, Crimp               | 4               | 50            | Commercial                |  |
| 01-0207                                 | BNC                   | Female, Bulkhead, Straight, Crimp  | 4               | 50            | Commercial                |  |

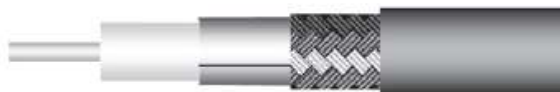
### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$  )



## LOW LOSS FLEXIBLE CABLE LMR240-75

(CABLE GROUP 0.240/75)



(CABLE GROUP 0.240/75)

### Application:

The foam dielectric provides excellent loss and low return loss levels. The double screen construction (Aluminium foil + tinned copper braid) offers a high level of shielding as well as low leakage. This cable will be advised for feeder and jumper assemblies in **Satellite Applications**,

Video Applications-CCTV, CATV, baseband or broadband as well as applications requiring easy routing.

### CONSTRUCTION / DIMENSIONS

|                  | material     | mm   | inches |
|------------------|--------------|------|--------|
| Center conductor | Solid copper | 0.82 | 0.032  |
| Dielectric       | Foam PE (1)  | 3.81 | 0.150  |
| Inner shield     | AL (3) foil  | 3.94 | 0.155  |
| Outer shield     | TC (3) braid | 4.52 | 0.178  |
| Jacket black     | Black PE(1)  | 6.10 | 0.240  |

- (1) PE = Polyethylene
- (2) AL = Aluminium
- (3) TC = Tinned Copper

### MECHANICAL CHARACTERISTICS

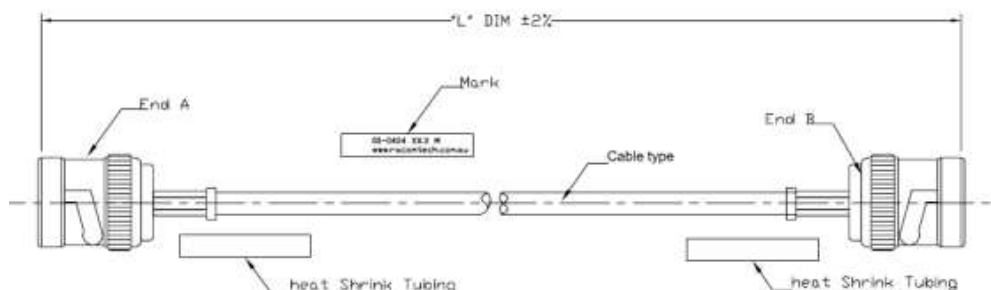
|                                    |          |                |
|------------------------------------|----------|----------------|
| recommended minimum bending radius | 19.1 mm  | 0.75 inch      |
| weight                             | 50 g / m | 0.034 lbs / ft |

### ENVIRONMENTAL CHARACTERISTICS

|                             |                   |               |
|-----------------------------|-------------------|---------------|
| operating temperature range | -40 / +85 °C      | -40 / +185 °F |
| fire resistance             | no                |               |
| halogen free                | Yes, LMR240-75-FR |               |

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)



### ELECTRICAL CHARACTERISTICS

|                           |                               |
|---------------------------|-------------------------------|
| characteristic impedance  | 75Ω ± 2Ω                      |
| operating frequency range | DC – 2.5 GHz                  |
| shielding effectiveness   | >90 dB                        |
| voltage withstanding      | 1 500 V rms                   |
| peak power                | 5.6 kW                        |
| capacitance               | 52.9 pF / m      16.1 pF / ft |
| velocity of propagation   | 84 % (4.0 ns / m)             |

Note: typical VSWR for the cable assembly  
VSWR=1.2:1 @3GHz

### FREQUENCY / ATTENUATION MAX POWER (sea level / 25 °C)

| GHz                            | dB / m                              | dB / ft | Watts |
|--------------------------------|-------------------------------------|---------|-------|
| 0.03                           | 0.04                                | 0.01    | 1400  |
| 0.05                           | 0.06                                | 0.02    | 1000  |
| 0.15                           | 0.09                                | 0.03    | 620   |
| 0.22                           | 0.11                                | 0.035   | 510   |
| 0.45                           | 0.17                                | 0.05    | 350   |
| 0.90                           | 0.24                                | 0.07    | 250   |
| 1.50                           | 0.31                                | 0.10    | 190   |
| 1.80                           | 0.34                                | 0.11    | 170   |
| 2.00                           | 0.36                                | 0.12    | 160   |
| 2.50                           | 0.41                                | 0.13    | 140   |
| attenuation calculation (dB/m) | (0.229 x √f GHz) + (0.0033 x f GHz) |         |       |

Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x √f (GHz)

## LOW LOSS FLEXIBLE CABLE LMR240-75 (CABLE GROUP 0.240/75)



[BNC male to BNC male LMR240-75-xx.x\(M\)](#)



[N male to N male LMR240-75-xx.x\(M\)](#)



[BNC male to F male LMR240-75-xx.x\(M\)](#)



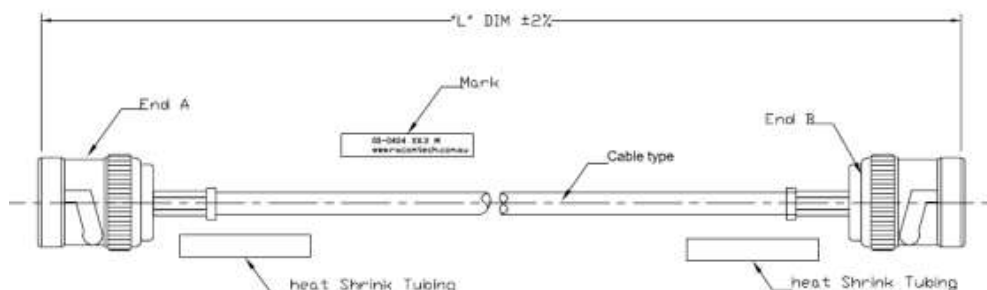
[F male to F male LMR240-75-xx.x\(M\)](#)

## CONNECTOR SELECTION (FOR LMR240-75 CABLE)

| CONNECTOR SELECTION ( FOR LMR240-75 CABLE) |                       |                       |                 |               |                           |
|--|-----------------------|-----------------------|-----------------|---------------|---------------------------|
| SKU  | Connector Type Series | Interface             | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |
| 01-0214                                    | BNC                   | Male Straight, Crimp, | 4               | 75            | Commercial                |
| 01-0555                                    | N                     | Male Straight, Crimp, | 4               | 75            | Commercial                |
| 01-0342                                    | F                     | Male Straight, crimp  | 3               | 75            | Commercial                |

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$ )



## LOW LOSS FLEXIBLE CABLE LMR400

(CABLE GROUP 0.400/50)



(CABLE GROUP 0.400/50)

### Application:

The foam dielectric provides excellent loss and low return loss levels. The double screen construction (Aluminium foil + tinned copper braid) offers a high level of shielding as well as low leakage. This cable will be advised for feeder and jumper assemblies in cellular networks as well as applications requiring easy routing.

| CONSTRUCTION / DIMENSIONS |              |       |        |
|---------------------------|--------------|-------|--------|
|                           | material     | mm    | inches |
| Canter conductor          | Solid copper | 2.74  | 0.108  |
| Dielectric                | Foam PE (1)  | 7.24  | 0.285  |
| Inner shield              | AL (3) foil  | 7.39  | 0.291  |
| Outer shield              | TC (3) braid | 8.13  | 0.320  |
| Jacket black              | Black PE(1)  | 10.29 | 0.405  |

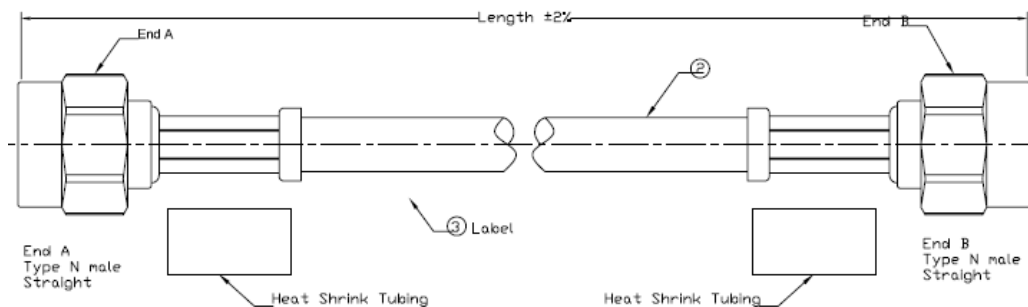
- (1) PE = Polyethylene
- (2) AL = Aluminium
- (3) TC = Tinned Copper

| MECHANICAL CHARACTERISTICS         |           |                |
|------------------------------------|-----------|----------------|
| recommended minimum bending radius | 25.4 mm   | 1.0 inch       |
| weight                             | 100 g / m | 0.068 lbs / ft |

| ENVIRONMENTAL CHARACTERISTICS |                |               |
|-------------------------------|----------------|---------------|
| operating temperature range   | -40 / +85 °C   | -40 / +185 °F |
| fire resistance               | no             |               |
| halogen free                  | Yes, LMR400-FR |               |

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)



| ELECTRICAL CHARACTERISTICS |                            |
|----------------------------|----------------------------|
| characteristic impedance   | 50Ω ± 2Ω                   |
| operating frequency        | DC – 6 GHz                 |
| shielding effectiveness    | >90 dB                     |
| voltage withstanding       | 2 500 V rms                |
| peak power                 | 16 kW                      |
| capacitance                | 78.4 pF / m    23.9 pF /ft |
| velocity of propagation    | 85 % (3.9 ns / m)          |

Note: typical VSWR for the cable assembly  
VSWR=1.2:1 @3GHz

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                    |         |       |
|--|------------------------------------|---------|-------|
| GHz  | dB/ m                              | dB / ft | Watts |
| 0.1  | 0.04                               | 0.01    | 1810  |
| 0.5  | 0.09                               | 0.03    | 790   |
| 1.0  | 0.14                               | 0.04    | 540   |
| 1.5  | 0.17                               | 0.05    | 440   |
| 2.0  | 0.20                               | 0.06    | 370   |
| 2.5  | 0.22                               | 0.07    | 335   |
| 3.0  | 0.25                               | 0.09    | 300   |
| 4.0  | 0.29                               | 0.10    | 250   |
| 5.0  | 0.33                               | 0.18    | 220   |
| 6.0  | 0.37                               | 0.11    | 200   |
| attenuation calculation (dB/m)                           | (0.127 x √f GHz) + (0.009 x f GHz) |         |       |

Note: typical attenuation for a couple of connectors  
(dB) = 0.045 x √f (GHz)

## LOW LOSS FLEXIBLE CABLE LMR400 (CABLE GROUP 0.400/50)



[N male to N male  
LMR400-xx.x\(M\)](#)



[N male to RA-N male  
LMR400-xx.x\(M\)](#)



[N male to N female  
LMR400-xx.x\(M\)](#)



[UHF male to UHF male  
LMR400-xx.x\(M\)](#)



[TNC male to TNC male LMR400-  
xx.x\(M\)](#)



[SMA male to SMA male  
LMR400-xx.x\(M\)](#)



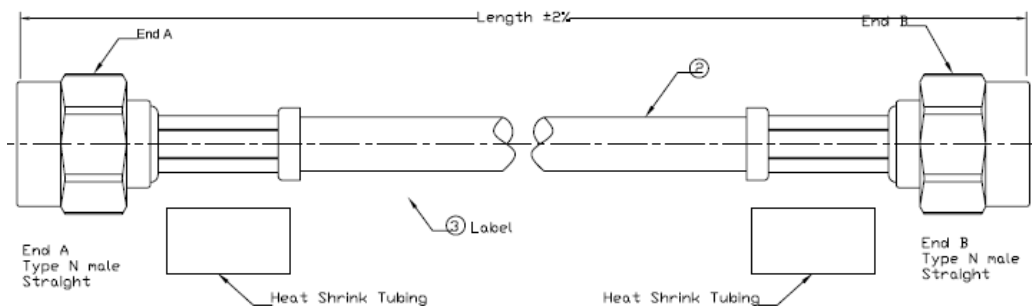
[N male to BNC male  
LMR400-xx.x\(M\)](#)



[N male to SMA male  
LMR400-xx.x\(M\)](#)

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$ )



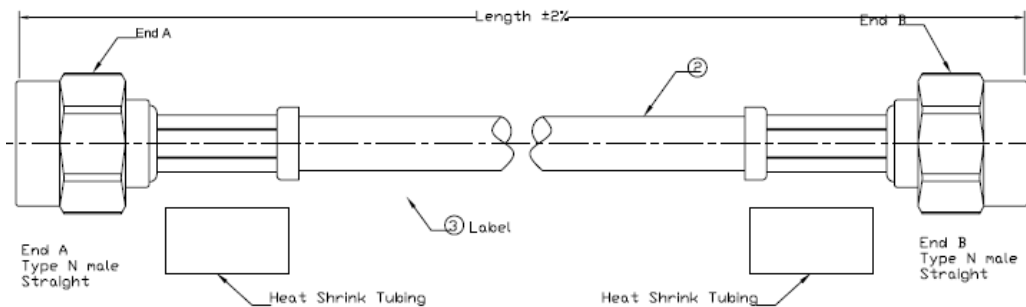


## CONNECTOR SELECTION (FOR LMR400 CABLE)

| CONNECTOR SELECTION ( FOR LMR400 CABLE) |                       |                                |                 |               |                           |
|---|-----------------------|--------------------------------|-----------------|---------------|---------------------------|
| SKU                                     | Connector Type Series | Interface                      | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |
| 01-0317                                 | N                     | Male Straight, Crimp, Hex      | 6               | 50            |                           |
| 01-0319                                 | N                     | Male Right Angle, crimp        | 6               | 50            |                           |
| 01-0301                                 | N                     | Male Straight, Clamp           | 6               | 50            |                           |
| 01-0326                                 | N                     | Female Straight, Crimp,        | 6               | 50            |                           |
| 01-0308                                 | N                     | male, Straight, Clamp          | 6               | 50            |                           |
| 01-0400                                 | SMA                   | Male Straight, Crimp           | 11              | 50            |                           |
| 01-0454                                 | SMA                   | Male straight, Reversed polar, | 6               | 50            |                           |
| 01-0512                                 | TNC                   | Male Straight, Crimp           | 6               | 50            |                           |
| 01-0514                                 | TNC                   | Female straight, crimp,        | 6               | 50            |                           |
| 01-0212                                 | BNC                   | Male Straight, Crimp           | 4               | 50            |                           |
| 01-0611                                 | UHF                   | Male Straight, Crimp           | 2               | 50            |                           |

### Custom Cable Assembly Requirement

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$  )



## HAND FORMABLE CABLE 0.086

(HABIA FLEXIFORM 405HFJ)



HABIA FLEXIFORM 405HFJ

### Application:

This hand formable cable is a good alternative to RG405 for applications requiring an easy routing on equipment. Due to the outer conductor construction, this cable can be hand formed with exceptional ease with no spring back effect.

Cable can be reshaped, eliminating the need for costly drawings. Attenuation is a little bit higher than the RG405's one but temperature range is wider.

| CONSTRUCTION / DIMENSIONS |                      |      |        |
|---------------------------|----------------------|------|--------|
|                           | material             | mm   | inches |
| Center conductor          | stranded<br>SPCCS(1) | 0.51 | 0.020  |
| Dielectric                | solid PTFE (2)       | 1.63 | 0.064  |
| Inner shield              | -                    | -    | -      |
| Outer shield              | TS(3) braid          | 2.15 | 0.086  |
| Jacket black              | Blue<br>HFS80T(4)    | 3.2  | 0.13   |

- (1) SPCCS= Silver Plated Copper Covered Steel
- (2) PTFE = Polytetrafluoroethylene
- (3)TC = Tine plated copper
- (4) HFS80T: HFS80T

| MECHANICAL CHARACTERISTICS         |            |                 |
|------------------------------------|------------|-----------------|
| recommended minimum bending radius | 10 mm inch | 0.394           |
| weight                             | 23 g / m   | 0.0120 lbs / ft |

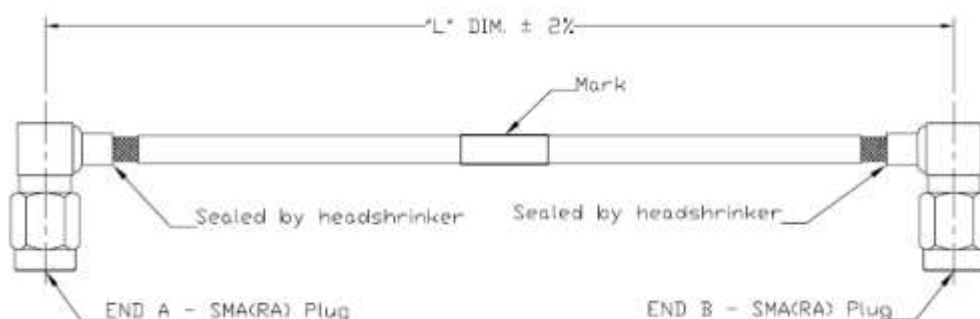
| ENVIRONMENTAL CHARACTERISTICS |                |               |
|-------------------------------|----------------|---------------|
| operating temperature range   | -65 / +150 °C  | -85 / +302 °F |
| fire resistance               | Not applicable |               |
| halogen free                  | yes            |               |

| ELECTRICAL CHARACTERISTICS |                         |
|----------------------------|-------------------------|
| characteristic impedance   | 50Ω ± 2Ω                |
| operating frequency range  | DC - 18 GHz             |
| shielding effectiveness    | 100 dB                  |
| voltage withstanding       | 5 000 V rms             |
| peak power                 | 1.9 kW                  |
| capacitance                | 96 pF / m    29 pF / ft |
| velocity of propagation    | 70 % (4.8 ns / m)       |

- Note: typical VSWR for the cable assembly
- VSWR=1.2:1


| FREQUENCY / ATTENUATION / 20 °C<br>MAX POWER (sea level / 40 °C) |                                  |         |       |
|--|----------------------------------|---------|-------|
| GHz  | dB / m                           | dB / ft | Watts |
| 1.0  | 0.67                             | 0.20    | 47    |
| 2.0  | 0.97                             | 0.29    | 34    |
| 3.0  | 1.21                             | 0.37    | 28    |
| 6.0  | 1.78                             | 0.54    | 20    |
| 8.0  | 2.10                             | 0.64    | 18    |
| 10   | 2.39                             | 0.72    | 16    |
| 12.4   | 2.71                             | 0.82    | 14    |
| 18   | 3.39                             | 1.10    | 12    |
| attenuation calculation (dB/m)                                   | (0.63 x √f GHz) + (0.04 x f GHz) |         |       |
| power calculation (W)  | 100 / √f GHz                     |         |       |

Note: typical attenuation for a couple of connectors (dB) = 0.075 x √f (GHz)



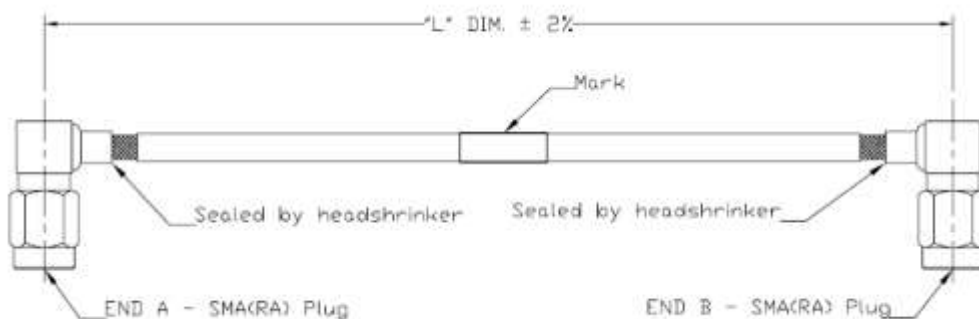
- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)

## HAND FORMABLE CABLE 0.086 (HABIA FLEXIFORM 405HFJ)

| FLEXIBLE CABLE FLEXIFORM 405 ASSEMBLIES |                                       |                   |                   |   |
|---|---------------------------------------|-------------------|-------------------|---|
| SKU                                     | Model                                 | End A - Connector | End B - Connector | Photo   |
| 00-0201                                 | SMA male to SMA male<br>RG405-X.XX(M) | SMA male straight | SMA male straight |  |
| CUSTOM                                  | End A to End B RG316-<br>XX.XX(M)     | End A - Connector | End B - Connector |   |

## HAND FORMABLE CABLE 0.086 ASSEMBLIES (HABIA FLEXIFORM 405HFJ)

| CONNECTOR SELECTION ( FOR RG405 CABLE ) |                       |                                       |                 |               |                           |
|---|-----------------------|---------------------------------------|-----------------|---------------|---------------------------|
| SKU                                     | Connector Type Series | Interface                             | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |
| 01-0401                                 | SMA                   | Male Straight                         | 6               | 50            | Commercial                |
| 01-0420                                 | SMA                   | Male Right Angle                      | 6               | 50            | Commercial                |
| 01-0425                                 | SMA                   | Female Straight, 2-hole panel mounted | 6               | 50            | Commercial                |
| 01-0419                                 | SMA                   | Female Straight                       | 6               | 50            | Commercial                |
| 01-0446                                 | SMA                   | Male Straight, SS                     | 18              | 50            | Commercial                |
| 01-0328                                 | N                     | Male Straight                         | 6               | 50            | Commercial                |
| 01-0327                                 | N                     | Female Straight, BH                   | 6               | 50            | Commercial                |
| 01-0332                                 | N                     | Female, 4-hole flange                 | 6               | 50            | Commercial                |
| 01-344                                  | N                     | Male straight                         | 18              | 50            | Commercial                |



- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2% )

## HAND FORMABLE CABLE 0.141

(FLEXIFORM 402 unjacketed / jacketed)



FLEXIFORM 402 unjacketed / jacketed

### Application:

This hand formable cable is a good alternative to RG405 for applications requiring an easy routing on equipment. Due to the outer conductor construction, this cable can be hand formed with exceptional ease with no spring back effect.

Cable can be reshaped, eliminating the need for costly drawings. Attenuation is a little bit higher than the RG405's one but temperature range is wider.

| CONSTRUCTION / DIMENSIONS |                      |      |        |
|---------------------------|----------------------|------|--------|
|                           | material             | mm   | inches |
| Center conductor          | stranded<br>SPCCS(1) | 0.92 | 0.036  |
| Dielectric                | solid PTFE (2)       | 2.95 | 0.116  |
| Inner shield              | -                    | -    | -      |
| Outer shield              | TS(3) braid          | 3.50 | 0.141  |
| Jacket black              | -(4)                 | -    | -      |

| ELECTRICAL CHARACTERISTICS |                         |
|----------------------------|-------------------------|
| characteristic impedance   | 50Ω ± 2Ω                |
| operating frequency range  | DC - 18 GHz             |
| shielding effectiveness    | 90 dB                   |
| voltage withstanding       | 5 000 V rms             |
| peak power                 | 3.4 kW                  |
| capacitance                | 96 pF / m    29 pF / ft |
| velocity of propagation    | 70 % (4.8 ns / m)       |

- (1) SPCCS= Silver Plated Copper Covered Steel
- (2) PTFE = Polytetrafluoroethylene
- (3)TC = Tine plated copper
- (4) HFS80T: HFS80T

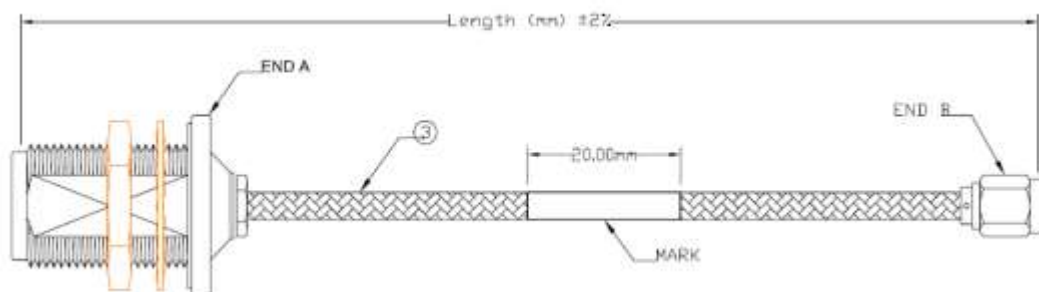
- Note: typical VSWR for the cable assembly
- VSWR=1.2:1

| MECHANICAL CHARACTERISTICS         |            |                 |
|------------------------------------|------------|-----------------|
| recommended minimum bending radius | 19 mm inch | 0.75            |
| weight                             | 33 g / m   | 0.0221 lbs / ft |

| ENVIRONMENTAL CHARACTERISTICS |                |               |
|-------------------------------|----------------|---------------|
| operating temperature range   | -65 / +150 °C  | -85 / +302 °F |
| fire resistance               | Not applicable |               |
| halogen free                  | no             |               |

| FREQUENCY / ATTENUATION / 20 °C<br>MAX POWER (sea level / 40 °C) |                                   |         |       |
|--|-----------------------------------|---------|-------|
| GHz  | dB / m                            | dB / ft | Watts |
| 1.0  | 0.39                              | 0.12    | 315   |
| 2.0  | 0.57                              | 0.17    | 223   |
| 3.0  | 0.72                              | 0.22    | 182   |
| 6.0  | 1.09                              | 0.33    | 129   |
| 8.0  | 1.30                              | 0.39    | 111   |
| 10   | 1.49                              | 0.45    | 100   |
| 12.4   | 1.71                              | 0.52    | 89    |
| 18   | 2.18                              | 0.66    | 74    |
| attenuation calculation (dB/m)                                   | (0.345 x √f GHz) + (0.04 x f GHz) |         |       |
| power calculation (W)  | 315 / √f GHz                      |         |       |



Note: typical attenuation for a couple of connectors (dB) = 0.075 x √f (GHz)



- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)

## HAND FORMABLE CABLE 0.141

(FLEXIFORM 402 unjacketed / jacketed)

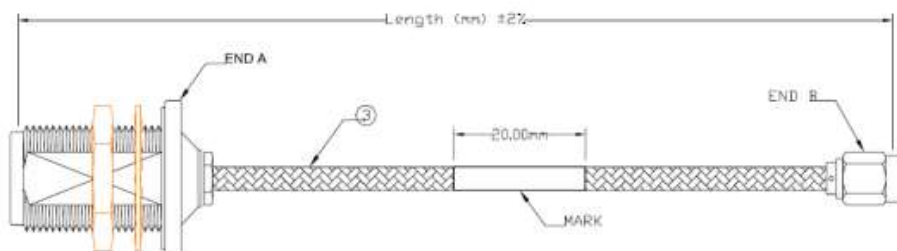
| FLEXIBLE CABLE FLEXIFORM 402 ASSEMBLES |   |                   |                   |   |
|--|---|-------------------|-------------------|---|
| SKU                                    | Model                                     | End A - Connector | End B - Connector | Photos  |
| <a href="#">00-0206</a>                | SMA male to SMA male<br>RG402-X.XX(M)     | SMA male straight | SMA male straight |  |
| <a href="#">00-0206HFJ</a>             | SMA male to SMA male<br>RG402-X.XX(M)-HFJ | SMA male straight | SMA male straight |  |
| <b>CUSTOM</b>                          | End A to End B RG402-<br>XX.XX(M)         | End A - Connector | End B - Connector |   |

CABLE ASSEMBLIES

## HAND FORMABLE CABLE 0.141 ASSEMBLIES

(FLEXIFORM 402 unjacketed / jacketed)

| CONNECTOR SELECTION ( FOR RG402 CABLE ) |                       |                                       |                 |               |                           |
|---|-----------------------|---------------------------------------|-----------------|---------------|---------------------------|
| SKU                                     | Connector Type Series | Interface                             | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |
| 01-0401                                 | SMA                   | Male Straight                         | 6               | 50            | Commercial                |
| 01-0420                                 | SMA                   | Male Right Angle                      | 6               | 50            | Commercial                |
| 01-0425                                 | SMA                   | Female Straight, 2-hole panel mounted | 6               | 50            | Commercial                |
| 01-0419                                 | SMA                   | Female Straight                       | 6               | 50            | Commercial                |
| 01-0446                                 | SMA                   | Male Straight, SS                     | 18              | 50            | Commercial                |
| 01-0328                                 | N                     | Male Straight                         | 6               | 50            | Commercial                |
| 01-0327                                 | N                     | Female Straight, BH                   | 6               | 50            | Commercial                |
| 01-0332                                 | N                     | Female, 4-hole flange                 | 6               | 50            | Commercial                |
| 01-344                                  | N                     | Male straight                         | 18              | 50            | Commercial                |



- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$  )

## HAND FORMABLE CABLE 0.250

(HABIA FLEXIFORM 401HF)



(HABIA FLEXIFORM 401HF)

### Application:

This hand formable cable is a good alternative to RG405 for applications requiring an easy routing on equipment. Due to the outer conductor construction, this cable can be hand formed with exceptional ease with no spring back effect.

Cable can be reshaped, eliminating the need for costly drawings. Attenuation is a little bit higher than the RG405's one but temperature range is wider.

| CONSTRUCTION / DIMENSIONS |                      |      |        |
|---------------------------|----------------------|------|--------|
|                           | material             | mm   | inches |
| Center conductor          | stranded<br>SPCCS(1) | 1.63 | 0.064  |
| Dielectric                | solid PTFE (2)       | 5.31 | 0.209  |
| Inner shield              | -                    | -    | -      |
| Outer shield              | TS(3) braid          | 6.4  | 0.25   |
| Jacket black              | Blue                 | 7.6  | 0.3    |

| ELECTRICAL CHARACTERISTICS |                         |
|----------------------------|-------------------------|
| characteristic impedance   | 50Ω ± 2Ω                |
| operating frequency range  | DC - 18 GHz             |
| shielding effectiveness    | 100 dB                  |
| voltage withstanding       | 7 000 V rms             |
| peak power                 | 6.0 kW                  |
| capacitance                | 94 pF / m    29 pF / ft |
| velocity of propagation    | 70 % (4.8 ns / m)       |

- (1) SPCCS= Silver Plated Copper Covered Steel
- (2) PTFE = Polytetrafluoroethylene
- (3) TC = Tine plated copper
- (4) HFS80T: HFS80T

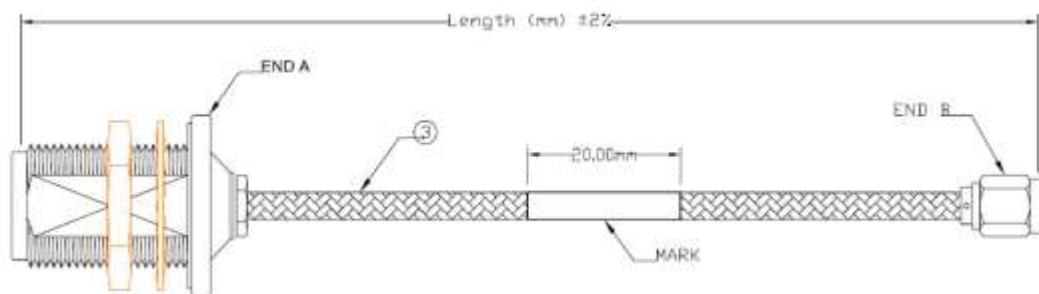
| MECHANICAL CHARACTERISTICS         |            |                 |
|------------------------------------|------------|-----------------|
| recommended minimum bending radius | 40 mm inch | 1.58            |
| weight                             | 140 g / m  | 0.0350 lbs / ft |

| ENVIRONMENTAL CHARACTERISTICS |                |               |
|-------------------------------|----------------|---------------|
| operating temperature range   | -65 / +150 °C  | -85 / +302 °F |
| fire resistance               | Not applicable |               |
| halogen free                  | yes            |               |

- Note: typical VSWR for the cable assembly
- VSWR=1.2:1


| FREQUENCY / ATTENUATION / 20 °C<br>MAX POWER (sea level / 40 °C) |                                   |         |       |
|--|-----------------------------------|---------|-------|
| GHz  | dB / m                            | dB / ft | Watts |
| 1.0  | 0.25                              | 0.06    | 270   |
| 2.0  | 0.38                              | 0.10    | 182   |
| 3.0  | 0.49                              | 0.11    | 136   |
| 4.0  | 0.58                              | 0.18    | 117   |
| 5.0  | 0.66                              | 0.21    | 105   |
| 6.0  | 0.74                              | 0.23    | 96    |
| 10   | 1.01                              | 0.30    | 74    |
| 18   | 1.47                              | 0.44    | 66    |
| attenuation calculation (dB/m)                                   | (0.165 x √f GHz) + (0.04 x f GHz) |         |       |
| power calculation (W)  | 900 / √f GHz                      |         |       |

Note: typical attenuation for a couple of connectors (dB) = 0.075 x √f (GHz)



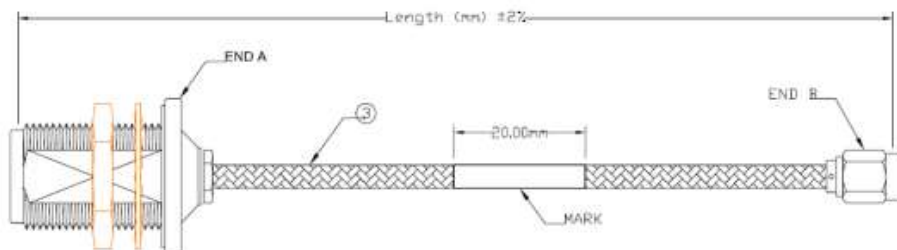
- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)

## HAND FORMABLE CABLE 0.250 (HABIA FLEXIFORM 401HF)

| FLEXIBLE CABLE FLEXIFORM 401 ASSEMBLIES |                                       |                   |                   |   |
|---|---------------------------------------|-------------------|-------------------|---|
| SKU                                     | Model                                 | End A - Connector | End B - Connector | Photo   |
| <a href="#">00-0219</a>                 | SMA male to SMA male<br>RG401-X.XX(M) | SMA male straight | SMA male straight |  |
| <b>CUSTOM</b>                           | End A to End B RG316-<br>XX.XX(M)     | End A - Connector | End B - Connector |   |

## HAND FORMABLE CABLE 0.250 ASSEMBLIES (HABIA FLEXIFORM 401HF)

| CONNECTOR SELECTION ( FOR RG401 CABLE ) |                       |                                       |                 |               |                           |
|---|-----------------------|---------------------------------------|-----------------|---------------|---------------------------|
| SKU                                     | Connector Type Series | Interface                             | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |
| <b>01-0427</b>                          | SMA                   | Male Straight                         | 6               | 50            | Commercial                |
| <b>01-0428</b>                          | SMA                   | Male Right Angle                      | 6               | 50            | Commercial                |
| <b>01-0701</b>                          | 7/16                  | Female Straight, 4-hole panel mounted | 6               | 50            | Commercial                |
|   | N                     | Female Straight                       | 3               | 50            | Commercial                |
|   | N                     | Male Straight                         | 3               | 50            | Commercial                |



- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard =  $\pm 2\%$  )

## CORRUGATED CABLE ½”

(CELLFLEX ½” LOW LOSS FLEXIBLE LCF12-50J)



(CELLFLEX ½” LCF12-50J)

### Application:

The outer conductor of this cable is constituted of a corrugated tube (spiral winding).

This construction allows perfect shielding and bendability while respecting large bending radius. The foam dielectric provides excellent loss and low return loss levels.

This cable will be advised for feeder and jumper assemblies in cellular networks as well as applications requiring high performance level on long distances.

| CONSTRUCTION / DIMENSIONS |          |      |        |
|---------------------------|----------|------|--------|
|                           | material | mm   | inches |
| Center conductor          | CCA(1)   | 4.8  | 0.19   |
| Dielectric                | FP(2)    | 11.3 | 0.44   |
| Inner shield              | -        | -    | -      |
| Outer shield              | ACC(3)   | 13.8 | 0.54   |
| Jacket black              | PE(4)    | 15.8 | 0.62   |

- (1) CCA= Copper-Clad Aluminium Wire
- (2) FP = Foam Polyethylene
- (3) ACC = Annularly Corrugated Copper
- (4) PE = Polyethylene, PE

| MECHANICAL CHARACTERISTICS         |             |               |
|------------------------------------|-------------|---------------|
| recommended minimum bending radius | 70 mm (5)   | 3 inch        |
|                                    | 125mm (6)   | 5 inch        |
| weight                             | 0.22 kg / m | 0.15 lbs / ft |

- (5) Single bending
- (6) Repeated bending

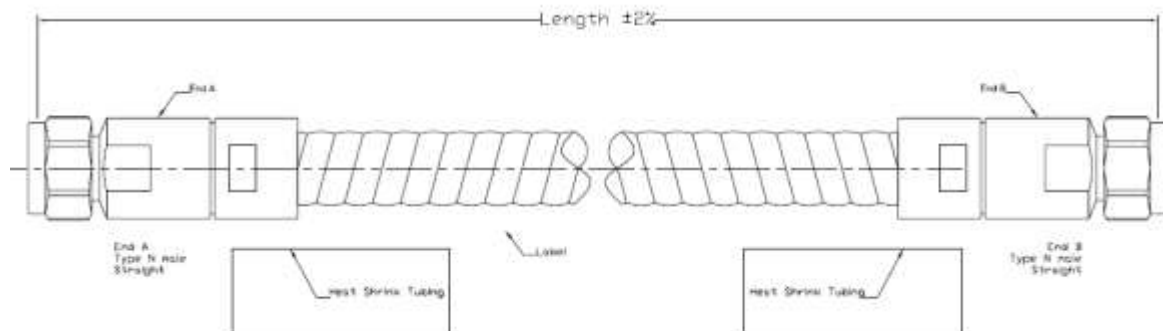
| ENVIRONMENTAL CHARACTERISTICS |              |               |
|-------------------------------|--------------|---------------|
| operating temperature range   | -50 / +85 °C | -58 / +185 °F |
| fire resistance               | NO           |               |
| halogen free                  | NO           |               |

| ELECTRICAL CHARACTERISTICS |                         |
|----------------------------|-------------------------|
| characteristic impedance   | 50Ω ± 1Ω                |
| operating frequency range  | DC – 8.8 GHz            |
| shielding effectiveness    | 100 dB (DC-3GHz)        |
| voltage withstanding       | 8 000 V rms             |
| peak power                 | 38 kW                   |
| capacitance                | 76 pF / m    23 pF / ft |
| velocity of propagation    | 88 % (3.9 ns / m)       |

- Note: typical VSWR for the cable assembly
- VSWR=1.2:1

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                |         |       |
|--|--------------------------------|---------|-------|
| GHz  | dB/ m                          | dB / ft | Watts |
| 0.5  | 0.05                           | 0.02    | 1710  |
| 1.0  | 0.07                           | 0.02    | 1180  |
| 1.5  | 0.09                           | 0.03    | 947   |
| 2.0  | 0.11                           | 0.03    | 809   |
| 3.0  | 0.13                           | 0.04    | 644   |
| 4.0  | 0.16                           | 0.05    | 548   |
| 6.0  | 0.20                           | 0.06    | 433   |
| 8.0  | 0.23                           | 0.07    | 366   |
| 8.8  | 0.25                           | 0.08    | 345   |
| attenuation calculation (dB/m)                           | (0.1 x √f GHz) + (0.01x f GHz) |         |       |
| power calculation (W)                                    | 1180 / √f GHz                  |         |       |

Note: typical attenuation for a couple of connectors (dB) = 0.075 x √f (GHz)



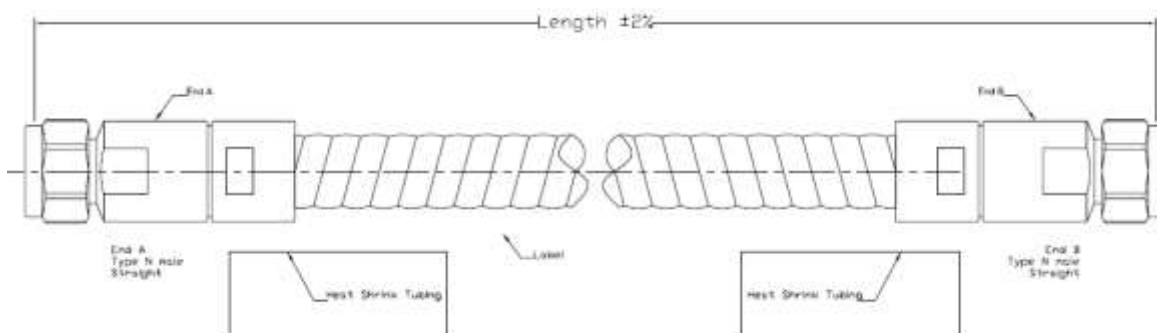
- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)



## CORRUGATED CABLE ½”

(CELLFLEX ½” LOW LOSS FLEXIBLE LCF12-50J)

| CONNECTOR SELECTION ( FOR LCF12-50J CABLE) |                       |                         |                 |               |                           |
|--|-----------------------|-------------------------|-----------------|---------------|---------------------------|
| SKU  | Connector Type Series | Interface               | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |
| 01-0369                                    | N                     | Male Straight, Clamp    | 3               | 50            | Commercial                |
| 01-0370                                    | N                     | Female Straight, Clamp, | 3               | 50            | Commercial                |



CABLE ASSEMBLIES

- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2% )

# CORRUGATED SUPER FLEX CABLE ½”

(CELLFLEX ½” SUPER FLEX SCF12-50J)



(CELLFLEX ½” SUPER FLEX SCF12-50J)

## Application:

The outer conductor of this cable is constituted of a corrugated tube (spiral winding).

This construction allows perfect shielding and bendability while respecting large bending radius. The foam dielectric provides excellent loss and low return loss levels.

This cable will be advised for feeder and jumper assemblies in cellular networks as well as applications requiring high performance level on long distances.

| CONSTRUCTION / DIMENSIONS |          |      |        |
|---------------------------|----------|------|--------|
|                           | material | mm   | inches |
| Center conductor          | CCA(1)   | 3.56 | 0.14   |
| Dielectric                | FP(2)    | 9.3  | 0.37   |
| Inner shield              | -        | -    | -      |
| Outer shield              | ACC(3)   | 12.3 | 0.48   |
| Jacket black              | PE(4)    | 13.8 | 0.54   |

- (1) CCA= Copper-Clad Aluminium Wire
- (2) FP = Foam Polyethylene
- (3) ACC = Annularly Corrugated Copper
- (4) PE = Polyethylene, PE

| MECHANICAL CHARACTERISTICS |             |               |
|----------------------------|-------------|---------------|
| recommended minimum        | 32mm (5)    | 1.3 inch      |
| bending radius             | 75mm (6)    | 2.8 inch      |
| weight                     | 0.17 kg / m | 0.11 lbs / ft |

- (5) Single bending
- (6) Repeated bending

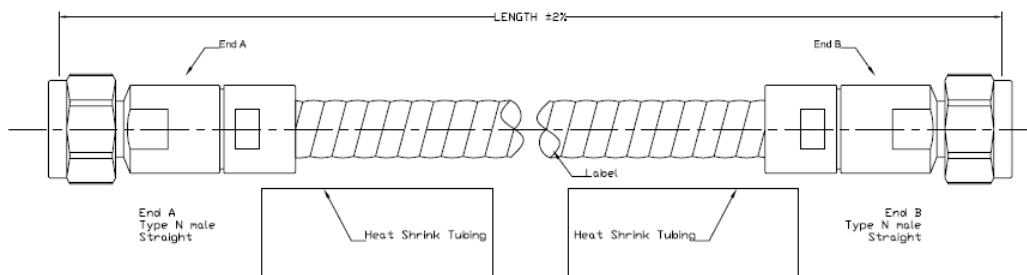
| ENVIRONMENTAL CHARACTERISTICS |              |               |
|-------------------------------|--------------|---------------|
| operating temperature range   | -50 / +85 °C | -58 / +185 °F |
| fire resistance               | NO           |               |
| halogen free                  | YES          |               |

| ELECTRICAL CHARACTERISTICS |                         |
|----------------------------|-------------------------|
| characteristic impedance   | 50Ω ± 1Ω                |
| operating frequency range  | DC – 10.6 GHz           |
| shielding effectiveness    | 100 dB (DC-3GHz)        |
| voltage withstanding       | 5 000 V rms             |
| peak power                 | 24 kW                   |
| capacitance                | 86 pF / m    26 pF / ft |
| velocity of propagation    | 77 %                    |

- Note: typical VSWR for the cable assembly
- VSWR=1.2:1

| FREQUENCY / ATTENUATION<br>MAX POWER (sea level / 25 °C) |                                |         |       |
|--|--------------------------------|---------|-------|
| GHz  | dB / m                         | dB / ft | Watts |
| 0.5  | 0.07                           | 0.02    | 949   |
| 1.0  | 0.11                           | 0.03    | 654   |
| 1.5  | 0.14                           | 0.04    | 523   |
| 2.0  | 0.16                           | 0.05    | 447   |
| 3.0  | 0.20                           | 0.06    | 335   |
| 4.0  | 0.24                           | 0.07    | 300   |
| 6.0  | 0.30                           | 0.09    | 237   |
| 8.0  | 0.36                           | 0.11    | 199   |
| 10.0   | 0.41                           | 0.13    | 174   |
| attenuation calculation (dB/m)                           | (0.1 x √f GHz) + (0.01x f GHz) |         |       |
| power calculation (W)                                    | 654 / √f GHz                   |         |       |

Note: typical attenuation for a couple of connectors (dB) = 0.075 x √f (GHz)

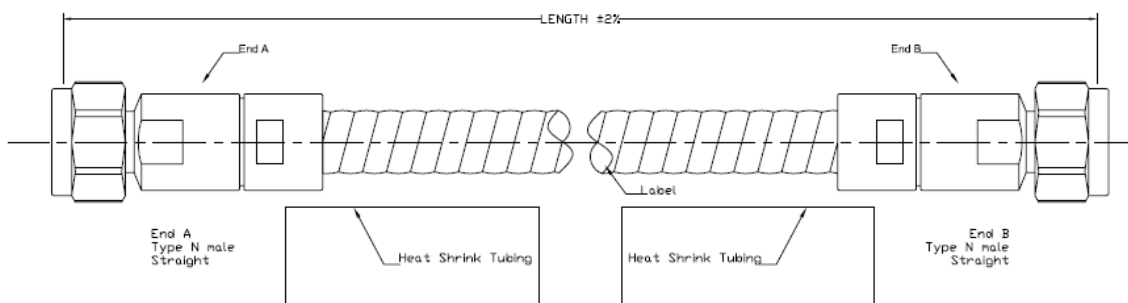


- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2%)

## CORRUGATED CABLE ½” (CELLFLEX ½” SUPER FLEX SCF12-50J)

| CONNECTOR SELECTION ( FOR SCF12-50J CABLE) |                       |                         |                 |               |                           |
|--|-----------------------|-------------------------|-----------------|---------------|---------------------------|
| SKU  | Connector Type Series | Interface               | Frequency (GHz) | Impedance (Ω) | Classic level ( Mil Spec) |
|  | N                     | Male Straight, Clamp    | 3               | 50            | Commercial                |
|  | N                     | Female Straight, Clamp, | 3               | 50            | Commercial                |

CABLE ASSEMBLIES



- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length ( or please specify if length between references planes )
  - length tolerance (standard = ±2% )