RACOMTECH

RF & MICROWAVE CABLE ASSEMBLY CATALOGUE

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RF & MICROWAVE CABLE ASSEMBLY CATALOGUE

Reversion: 01

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Address: 203-205 Blackburn Road, Mount Waverley, VIC 3149 Australia

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°C
Electrical parameters perform at the standard operating temperature range.
Other temperature ranges are available (Please contact RACOMTECH)

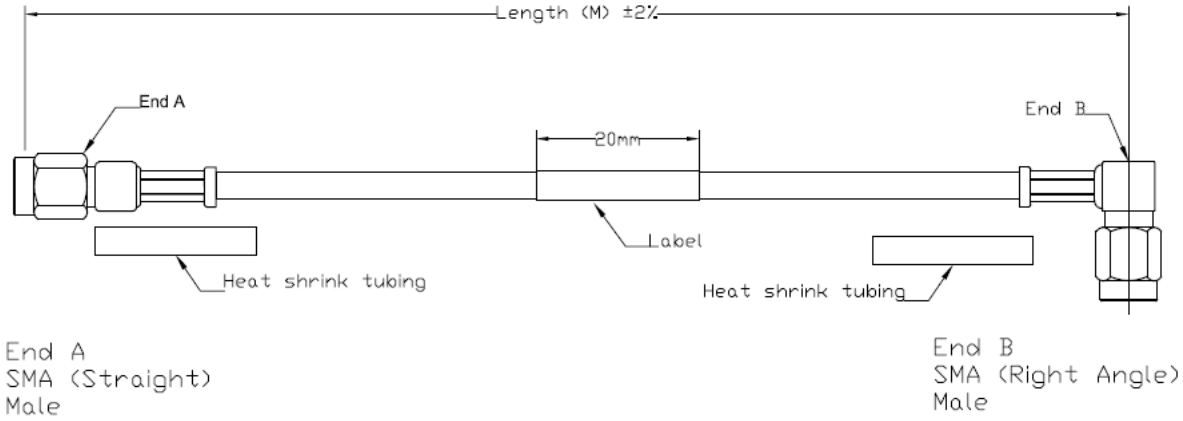
RACOMTECH has the ability to provide a wide range of solutions to meet most applications

CABLE ASSEMBLIES



Address: 203-205 Blackburn Road, Mount Waverley, VIC 3149 Australia

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%)

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.

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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" CELLFLEX	50	0.16	0.20	0.30	0.38	0.48
LCF12-50J	1/2" 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.

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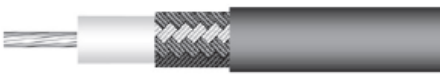
FLEXIBLE CABLE RG58

(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

	material	mm	inches
Canter conductor	stranded TC	0.90	0.035
Dielectric	solid PE(2)	2.95	0.116
Inner shield	TC(1) braid	3.66	0.144
Outer shield	-	-	-
Jacket black	PVC(3)	4.95	0.195

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

ELECTRICAL CHARACTERISTICS

characteristic impedance	50Ω ± 2Ω	
operating frequency range	DC - 1 GHz	
shielding effectiveness	40 dB	
voltage withstanding	5 000 V rms	
peak power	2.6 kW	
capacitance	96 pF / m	29 pF /ft
velocity of propagation	66 % (5 ns / m)	

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

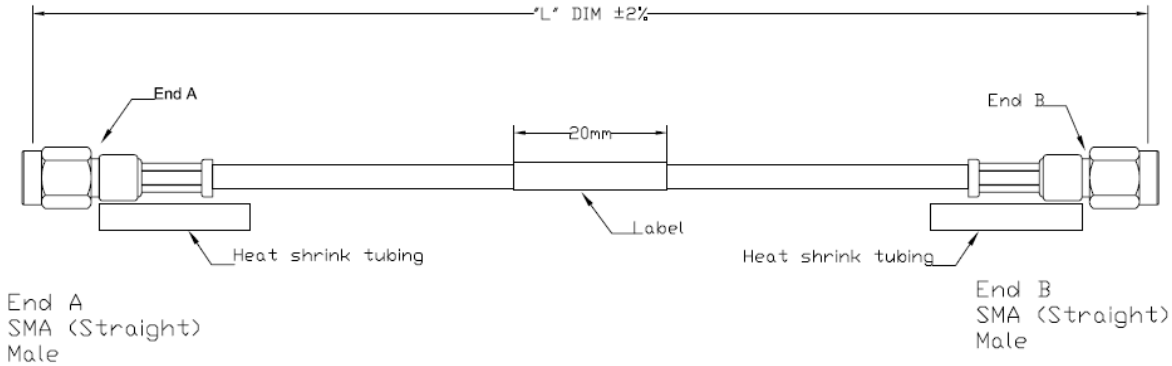
ENVIRONMENTAL CHA RACTERISTICS

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

FREQUENCY / ATTENUATION 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)



- 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%)

CABLE ASSEMBLIES

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RG58 CABLE ASSEMBLIES

(REGULAR ORDERED RG58 CABLE ASSEMBLIES)

FLEXIBLE CABLE RG58 ASSEMBLES

SKU	Model	End A - Connector	End B - Connector	Photo
00-0416	SMA male to RA-SMA male RG58-XX.XX(M)	SMA male straight	SMA male Right Angle	
00-0412	SMA male to SMA male RG58-XX.XX(M)	SMA male straight	SMA male straight	
00-0406	BNC male to SMA male RG58-XX.XX(M)	BNC male straight	SMA male straight	
00-0408	SMA male to BH-BNC female RG58-XX.XX(M)	SMA male straight	BNC Bulkhead female straight	
00-0404	BNC male to BNC male RG58-XX.XX(M)	BNC male straight	BNC male straight	
00-0407	TNC male to SMA male RG58-XX.XX(M)	TNC male straight	SMA male straight	
00-0409	TNC male to TNC male RG58-XX.XX(M)	TNC male straight	TNC male straight	

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FLEXIBLE CABLE RG58

(MIL-C-17/28-RG58)

FLEXIBLE CABLE RG58 ASSEMBLES

SKU	Model	End A - Connector	End B - Connector	Photo
00.0411	BNC female to BNC male RG58-XX.XX(M)	BNC female straight	BNC male Right Angle	
00-0401	N male to N male RG58-XX.XX(M)	N male straight	N male straight	
00-0402	N male to BH-N female RG58-XX.XX(M)	N male straight	N Bulkhead female straight	
00-0405	UHF male to UHF male RG58-XX.XX(M)	UHF male straight	UHF male straight	
00-0410	UHF male to UHF female RG58-XX.XX(M)	UHF male straight	UHF female straight	
00-0403	FME female to FME male RG58-XX.XX(M)	FME female straight	FME male straight	
00-0413	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 (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

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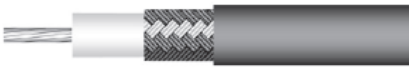
FLEXIBLE CABLE RG59

(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
Canter 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

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

MECHANICAL CHARACTERISTICS

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

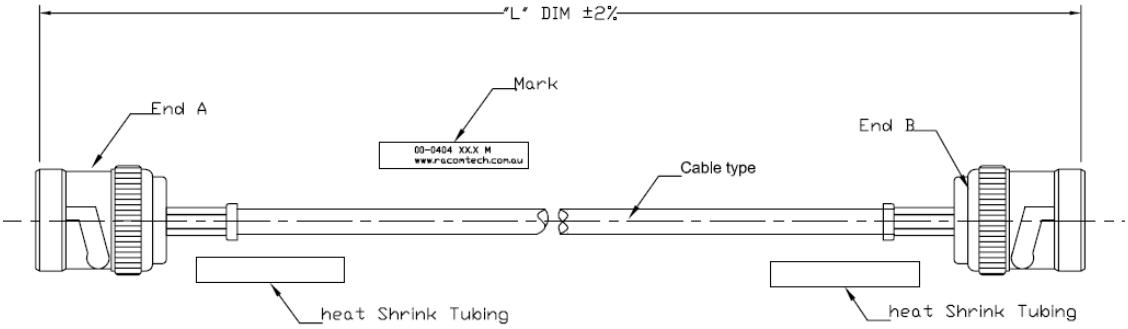
FREQUENCY / ATTENUATION MAX POWER (sea level / 25 °C)

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)

ENVIRONMENTAL CHA RACTERISTICS

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



- 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%)

CABLE ASSEMBLIES

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 (Ω)	75	75	75
Classic level	Commercial	Commercial	Commercial

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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
Canter conductor	stranded SPCCS(1)	0.53	0.021
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

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

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)	

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

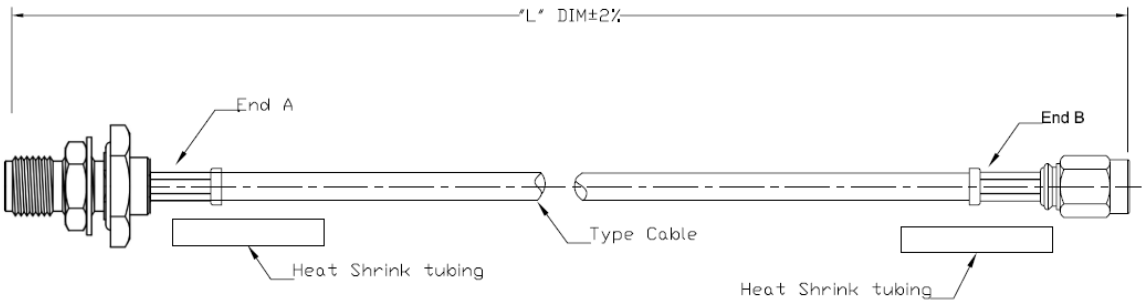
ENVIRONMENTAL CHA RACTERISTICS

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

FREQUENCY / ATTENUATION 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		

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%)

CABLE ASSEMBLIES

FLEXIBLE CABLE RG316

(MIL-C-17/113-RG316)

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

CONNECTOR SELECTION (TABLE)

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

CONNECTOR SELECTION (FOR RG316 CABLE)					
SKU	Connector Type Series	Interface	Frequency (GHz)	Impedance (Ω)	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

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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
Canter 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) 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	25 mm	0.984inch
weight	64 g / m	0.043 lbs / ft

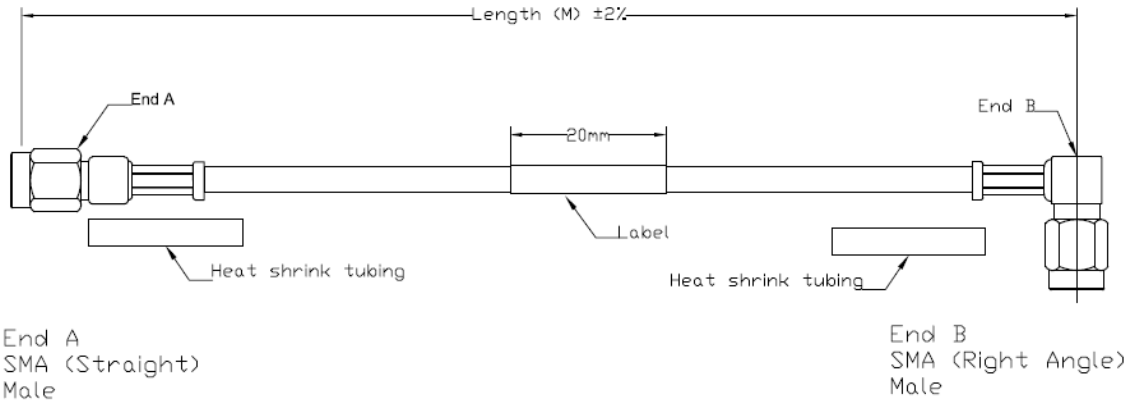
FREQUENCY / ATTENUATION MAX POWER (sea level / 25 °C)

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 CHA RACTERISTICS

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



CABLE ASSEMBLIES

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 = ±2%)

FLEXIBLE CABLE RG142 ASSEMBLES

SKU	Model	End A - Connector	End B - Connector	Photo
00-0305	N male to N male RG142-XX.XX(M)	N male straight	N male straight	
00-0306	N male to N female RG142-XX.XX(M))	N male straight	N female BH straight	
00-0336	N male to SMA male RG142-XX.XX(M)	N male straight	SMA male straight	
00-0307	N male to BNC male RG142-XX.XX(M)	N male straight	BNC male straight	
00-0308	SMA male to SMA male RG142-XX.XX(M)	SMA male straight	SMA male straight	
00-0313	TNC male to TNC male RG142-XX.XX(M)	TNC male straight	TNC male straight	

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

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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
Canter 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

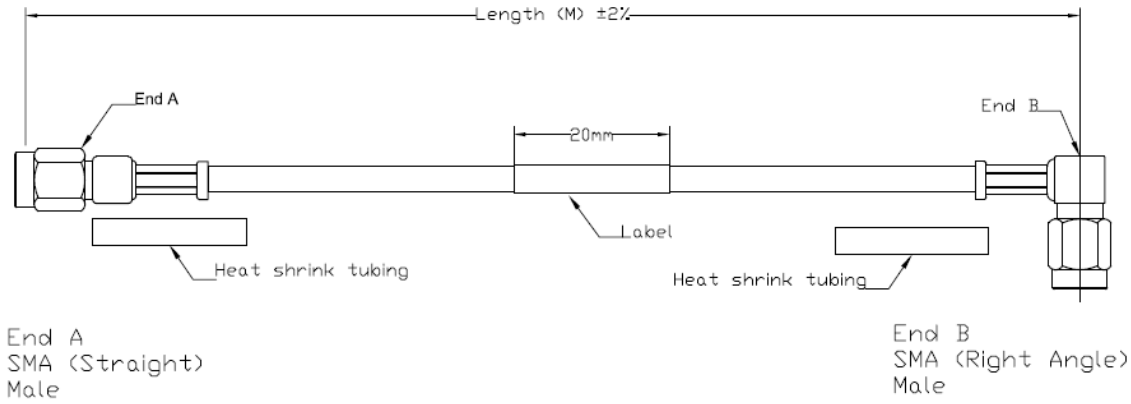
recommended minimum bending radius	20 mm	0.79 inch
weight	66 g / m	0.0442 lbs / ft

FREQUENCY / ATTENUATION 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 CHA RACTERISTICS

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

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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
Canter 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

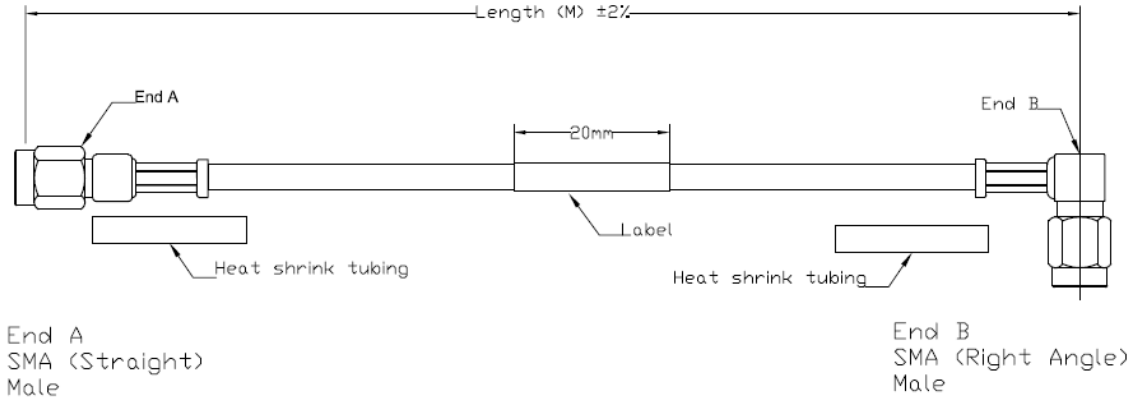
recommended minimum bending radius	25 mm	0.984 inch
weight	55 g / m	0.0372 lbs / ft

ENVIRONMENTAL CHA RACTERISTICS

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

FREQUENCY / ATTENUATION 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		



CUSTOM RG223 Cable Assembly

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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 = ±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 (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

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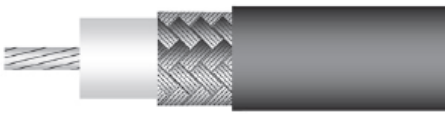
FLEXIBLE CABLE RG213

(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
Canter conductor	Standed 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

FREQUENCY / ATTENUATION 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)

ENVIRONMENTAL CHA RACTERISTICS

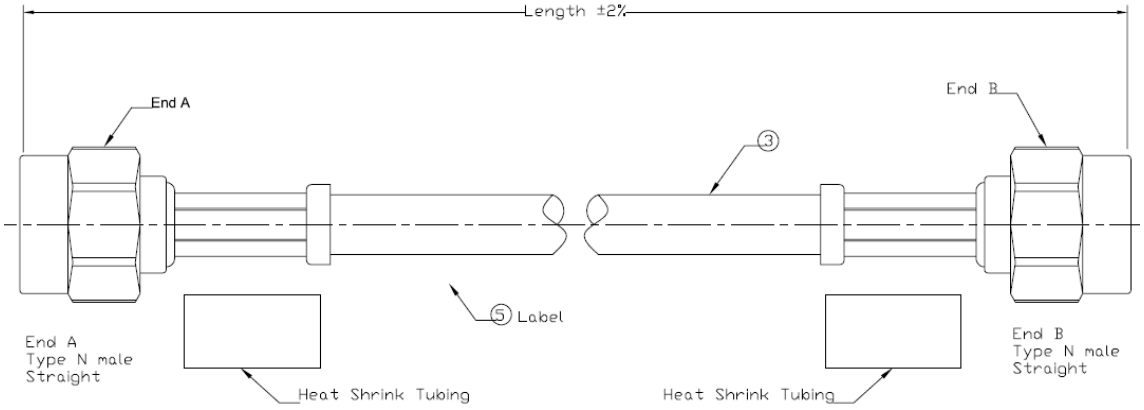
operating temperature range	-40 / +85 °C	-40 / +185 °F
fire resistance	No	
halogen free	No	

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)



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)
01-0317	N	Male Straight, Crimp, Hex	6	50	Commercial
01-0319	N	Male Right Angle, crimp	6	50	Commercial
01-0301	N	Male Straight, Clamp	6	50	Commercial
01-0326	N	Female straight, crimp,	6	50	Commercial
01-0308	N	Female Straight, Clamp,	6	50	Commercial
01-0400	SMA	Male Straight, Crimp	6	50	Commercial
01-0512	TNC	Male Straight, Crimp	6	50	Commercial
01-0514	TNC	Female straight, crimp,	6	50	Commercial
01-0212	BNC	Male Straight, Clamp	4	50	Commercial
01-0611	UHF	Male Straight, Crimp	2	50	Commercial
01-0608	UHF	Male Straight, Clamp	2	50	Commercial

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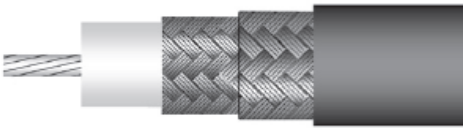
FLEXIBLE CABLE RG214

(MIL-C-17/75 –RG213)



(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
Canter conductor	Standed 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 – 11 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 CHA RACTERISTICS

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

FREQUENCY / ATTENUATION 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
8.0	0.89	0.27	64
10	1.03	0.31	57
11	1.10	0.33	54
attenuation calculation (dB/m)	(0.20 x √f GHz) + (0.04 x f GHz)		
power calculation (W)	180 / √f GHz		

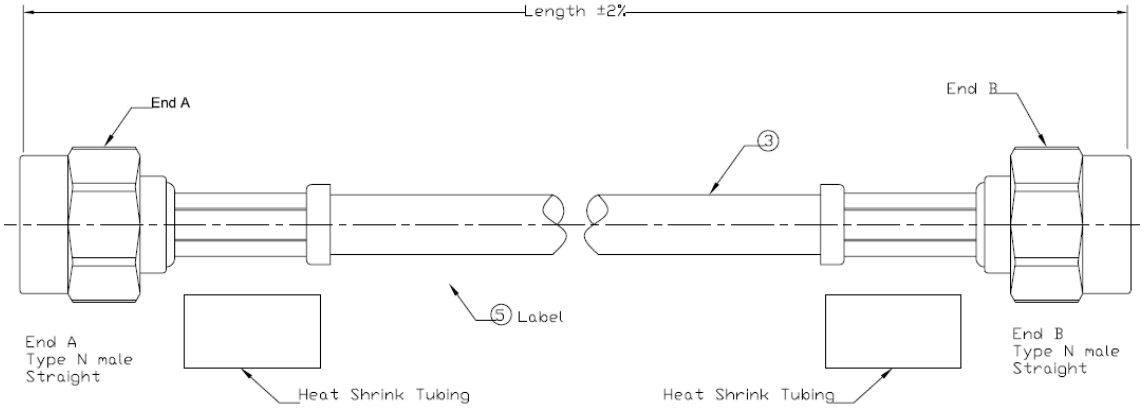
Note: typical attenuation for a couple of connectors (dB) = 0.045 x √f (GHz)

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

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

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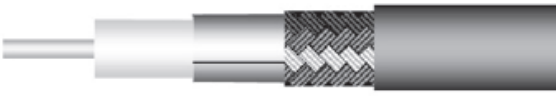
LOW LOSS FLEXIBLE CABLE LMR195

(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.

CABLE ASSEMBLIES

CONSTRUCTION / DIMENSIONS			
	material	mm	inches
Canter 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

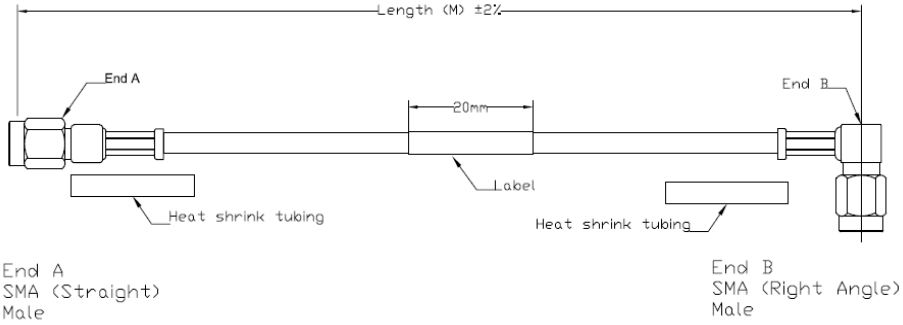
ENVIRONMENTAL CHA RACTERISTICS		
operating temperature range	-40 / +85 °C	-40 / +185 °F
fire resistance	no	
halogen free	YES, LMR195-FR	

FREQUENCY / ATTENUATION 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 √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 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)

TNC male to SMA male
LMR195-xx.x(M)

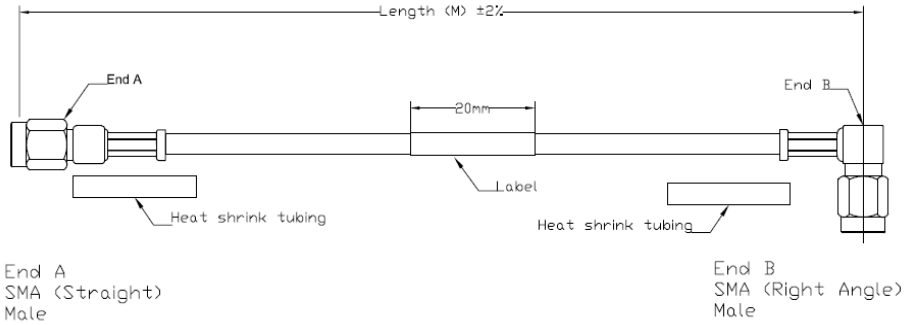
RP-TNC male to RP-TNC
male LMR195-xx.x(M)

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 = ±2%)



COAX CONNECTOR SELECTION GUIDE

FOR CABLE LMR195 ASSEMBLES

CONNECTOR SELECTION (FOR LMR195 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

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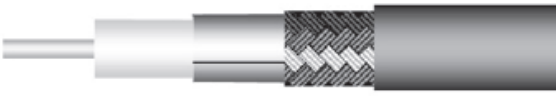
LOW LOSS FLEXIBLE CABLE LMR200

(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
Canter 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 CHA RACTERISTICS

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

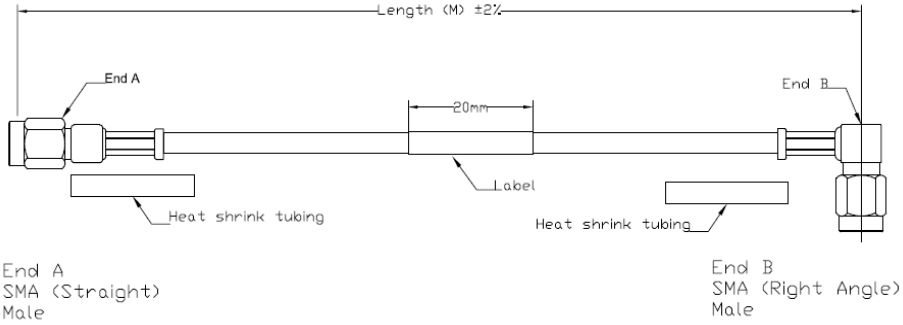
FREQUENCY / ATTENUATION MAX POWER (sea level / 25 °C)

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%)



CABLE ASSEMBLIES

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)

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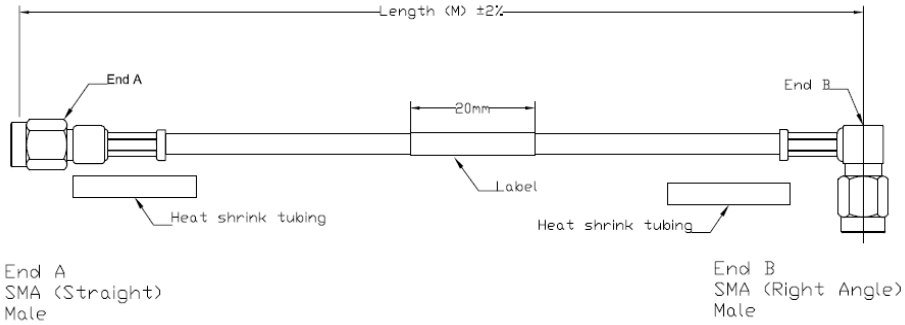
LOW LOSS FLEXIBLE CABLE LMR200

(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 = ±2%)



COAX CONNECTOR SELECTION GUIDE

FOR CABLE LMR200 ASSEMBLES

CONNECTOR SELECTION (FOR LMR200 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

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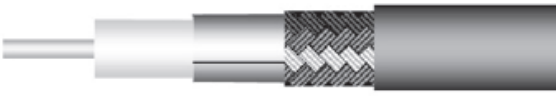
LOW LOSS FLEXIBLE CABLE LMR240

(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
Canter 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

FREQUENCY / ATTENUATION 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)		

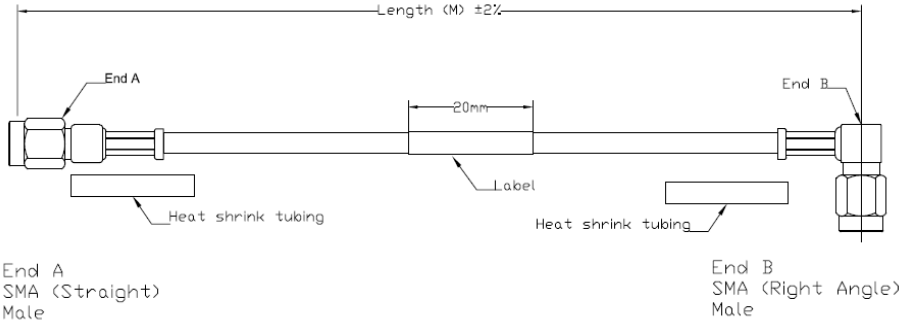
Note: typical attenuation for a couple of connectors (dB) = 0.045 x √f (GHz)

ENVIRONMENTAL CHA RACTERISTICS

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



CABLE ASSEMBLIES

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
LMR2400-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)

CABLE ASSEMBLIES

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%)

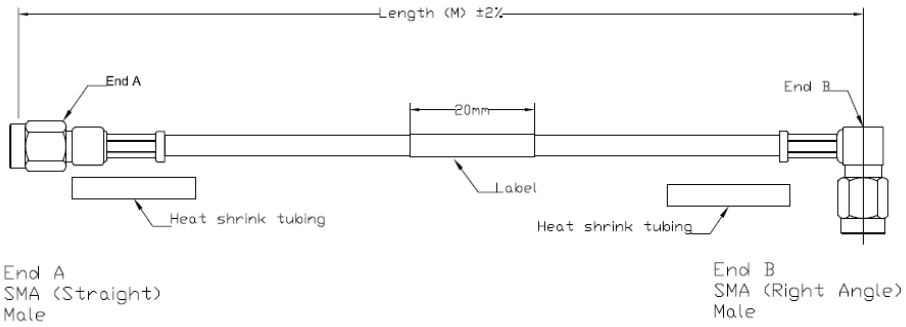
CONNECTOR SELECTION FOR LMR240

(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 = ±2%)



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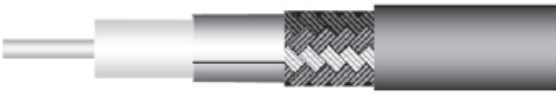
LOW LOSS FLEXIBLE CABLE LMR240-75

(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
Canter 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

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

MECHANICAL CHARACTERISTICS

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

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)		

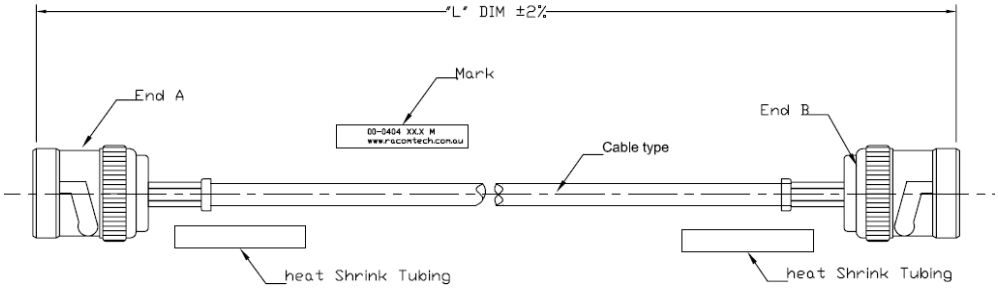
Note: typical attenuation for a couple of connectors (dB) = 0.045 x √f (GHz)

ENVIRONMENTAL CHA RACTERISTICS

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%)



CABLE ASSEMBLIES

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)

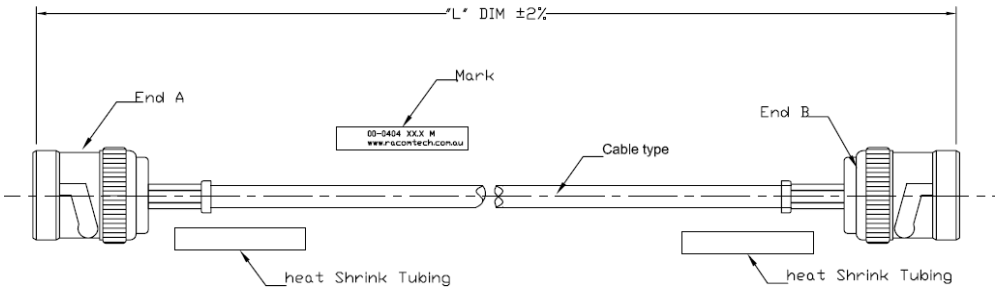
F male to F male LMR240-75-xx.x(M)

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 = ±2%)



CABLE ASSEMBLIES

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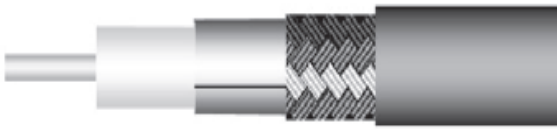
LOW LOSS FLEXIBLE CABLE LMR400

(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.

CABLE ASSEMBLIES

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

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

MECHANICAL CHARACTERISTICS

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

FREQUENCY / ATTENUATION 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)		

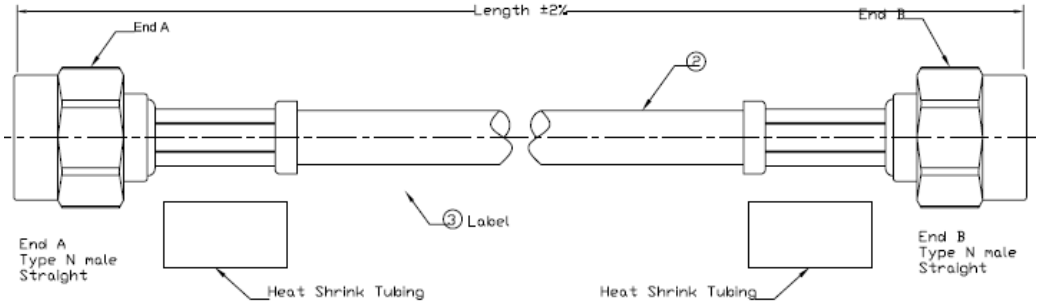
Note: typical attenuation for a couple of connectors (dB) = 0.045 x √f (GHz)

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%)



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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)

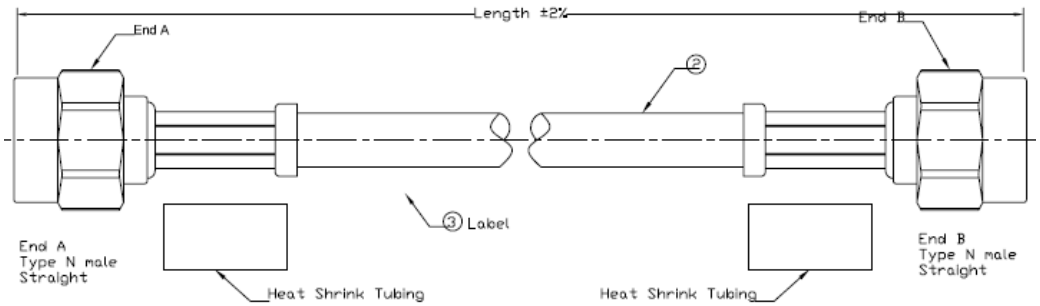
SMA male to SMA male
LMR400-xx.x(M)

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 = ±2%)

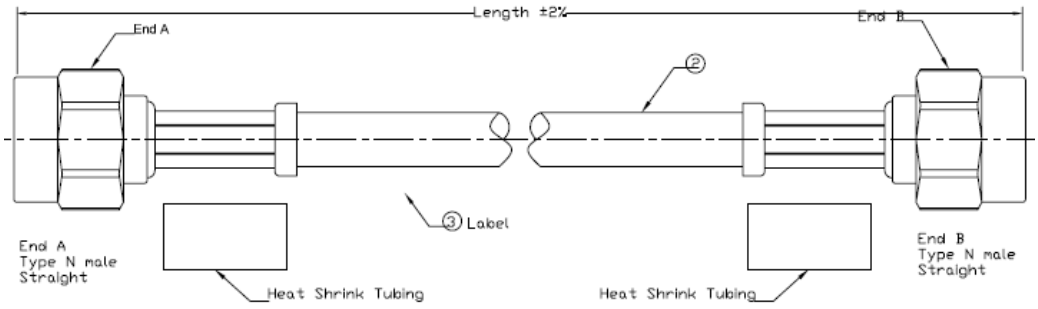


CONNECTOR SELECTION (FOR LMR400 CABLE)

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 = ±2%)



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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
Canter conductor	stranded 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 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 CHA RACTERISTICS

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

ELECTRICAL CHARACTERISTICS

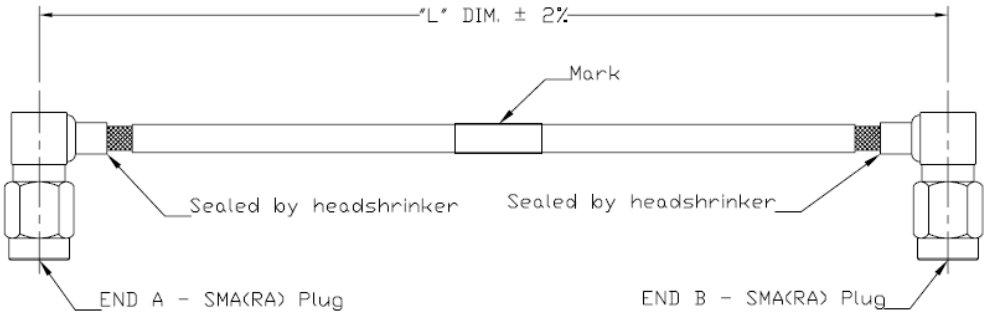
characteristic impedance	50Ω ± 2Ω	
operating frequency range	DC - 18 GHz	
shielding effectiveness	100 dB	
voltage withstanding	5 000 V rms	
peak power	1.9 kW	
capacitance	96 pF / m	29 pF /ft
velocity of propagation	70 % (4.8 ns / m)	

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

FREQUENCY / ATTENUATION / 20 °C) 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%)

Address: 203-205 Blackburn Road, Mount Waverley, VIC 3149 Australia

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HAND FORMABLE CABLE 0.086

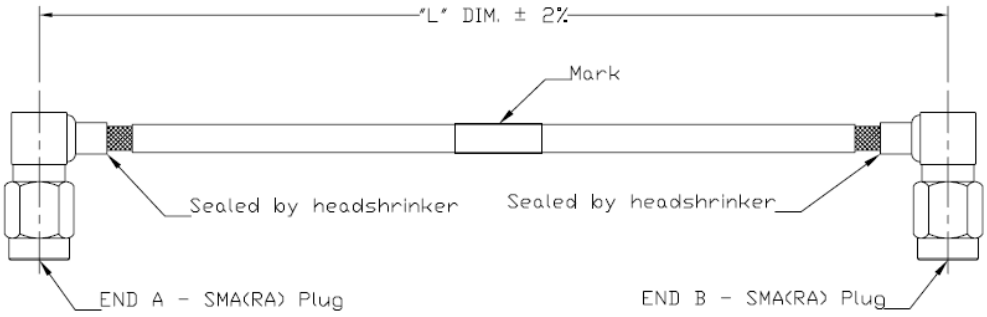
(HABIA FLEXIFORM 405HFJ)

FLEXIBLE CABLE FLEXIFORM 405 ASSEMBLES				
SKU	Model	End A - Connector	End B - Connector	Photo
00-0201	SMA male to SMA male RG405-X.XX(M)	SMA male straight	SMA male straight	
CUSTOM	End A to End B RG316-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%)

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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
Canter conductor	stranded 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)	-	-

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

MECHANICAL CHARACTERISTICS

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

ENVIRONMENTAL CHA RACTERISTICS

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

ELECTRICAL CHARACTERISTICS

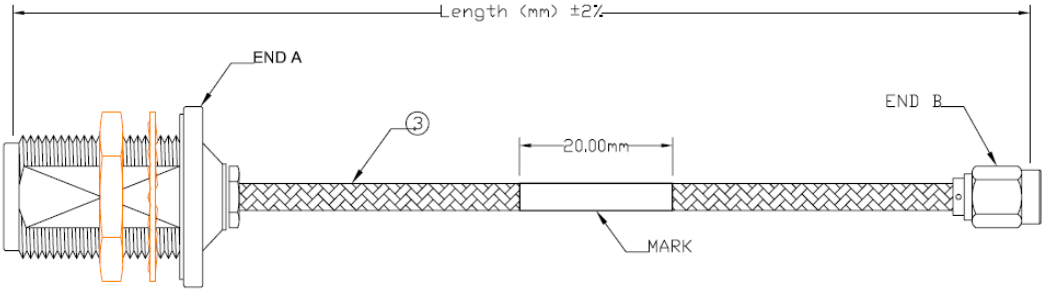
characteristic impedance	50Ω ± 2Ω	
operating frequency range	DC - 18 GHz	
shielding effectiveness	90 dB	
voltage withstanding	5 000 V rms	
peak power	3.4 kW	
capacitance	96 pF / m	29 pF /ft
velocity of propagation	70 % (4.8 ns / m)	

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

FREQUENCY / ATTENUATION / 20 °C) 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%)

CABLE ASSEMBLIES

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HAND FORMABLE CABLE 0.141

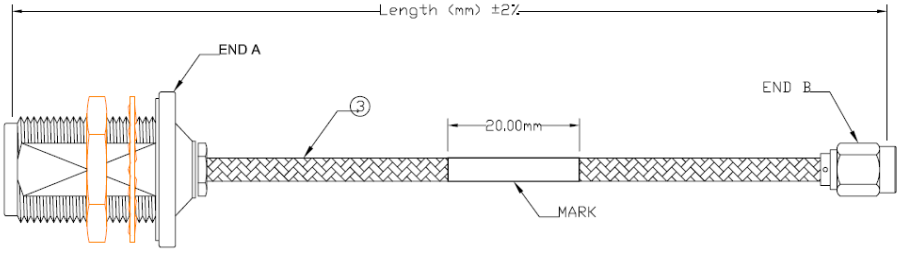
(FLEXIFORM 402 unjacketed / jacketed)

FLEXIBLE CABLE FLEXIFORM 402 ASSEMBLES				
SKU	Model	End A - Connector	End B - Connector	Photos
00-0206	SMA male to SMA male RG402-X.XX(M)	SMA male straight	SMA male straight	
00-0206HFJ	SMA male to SMA male RG402-X.XX(M)-HFJ	SMA male straight	SMA male straight	
CUSTOM	End A to End B RG402-XX.XX(M)	End A - Connector	End B - Connector	

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 = ±2%)

CABLE ASSEMBLIES

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HAND FORMABLE CABLE 0.250

(HABIA FLEXIFORM 401HFJ)

(HABIA FLEXIFORM 401HFJ)

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
Canter conductor	stranded 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

(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 CHA RACTERISTICS

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

ELECTRICAL CHARACTERISTICS

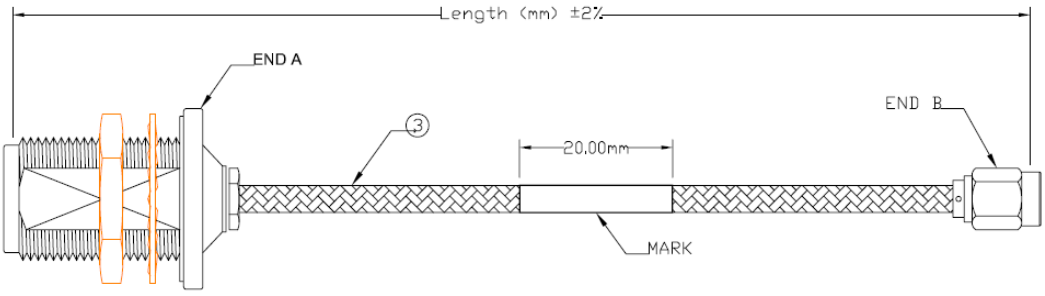
characteristic impedance	50Ω ± 2Ω	
operating frequency range	DC - 18 GHz	
shielding effectiveness	100 dB	
voltage withstanding	7 000 V rms	
peak power	6.0 kW	
capacitance	94 pF / m	29 pF /ft
velocity of propagation	70 % (4.8 ns / m)	

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

FREQUENCY / ATTENUATION / 20 °C) 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%)

CABLE ASSEMBLIES

Address: 203-205 Blackburn Road, Mount Waverley, VIC 3149 Australia

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HAND FORMABLE CABLE 0.250

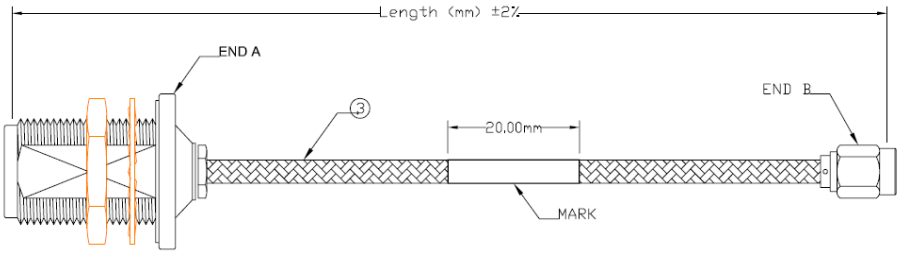
(HABIA FLEXIFORM 401HFJ)

FLEXIBLE CABLE FLEXIFORM 401 ASSEMBLES				
SKU	Model	End A - Connector	End B - Connector	Photo
00-0219	SMA male to SMA male RG401-X.XX(M)	SMA male straight	SMA male straight	
CUSTOM	End A to End B RG316-XX.XX(M)	End A - Connector	End B - Connector	

HAND FORMABLE CABLE 0.250 ASSEMBLIES

(HABIA FLEXIFORM 401HFJ)

CONNECTOR SELECTION (FOR RG401 CABLE)					
SKU	Connector Type Series	Interface	Frequency (GHz)	Impedance (Ω)	Classic level (Mil Spec)
01-0427	SMA	Male Straight	6	50	Commercial
01-0428	SMA	Male Right Angle	6	50	Commercial
01-0701	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 = ±2%)

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CORRUNGATED 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
Canter 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) 125mm (6)	3 inch 5 inch
weight	0.22 kg / m	0.15 lbs / ft

(5) Single bending
(6) Repeated bending

ENVIRONMENTAL CHA RACTERISTICS

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

ELECTRICAL CHARACTERISTICS

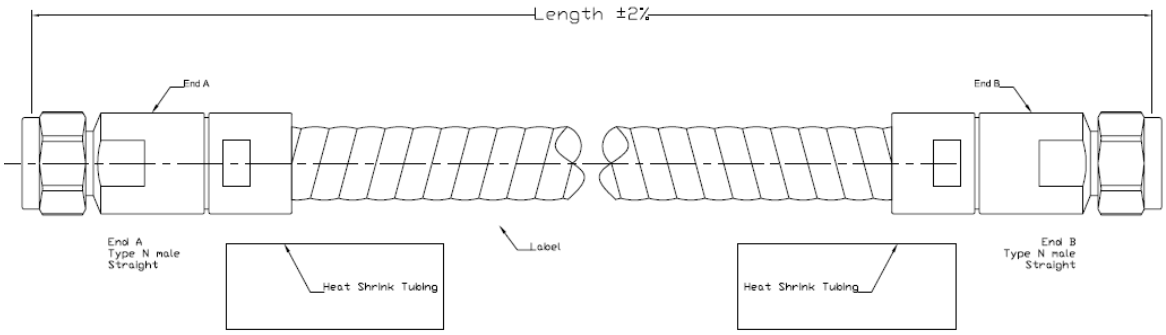
characteristic impedance	50Ω ± 1Ω	
operating frequency range	DC – 8.8 GHz	
shielding effectiveness	100 dB (DC-3GHz)	
voltage withstanding	8 000 V rms	
peak power	38 kW	
capacitance	76 pF / m	23 pF /ft
velocity of propagation	88 % (3.9 ns / m)	

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

FREQUENCY / ATTENUATION 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)



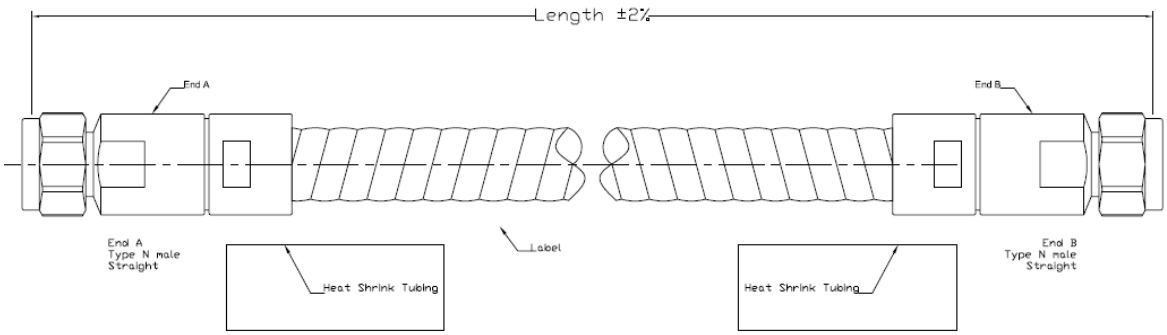
•TYPE COAX CABLE
•CONNECTOR ON END A
•CONNECTOR ON END B
•LENGTH: Standard = overall length (or please specify if length between references planes)
•length tolerance (standard = ±2%)

Address: 203-205 Blackburn Road, Mount Waverley, VIC 3149 Australia

CORRUNGATED 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



- 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%)

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CORRUNGATED 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.

CABLE ASSEMBLIES

CONSTRUCTION / DIMENSIONS	material	mm	inches
Canter 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 bending radius	32mm (5) 75mm (6)	1.3 inch 2.8 inch
weight	0.17 kg / m	0.11 lbs / ft

(5) Single bending
(6) Repeated bending

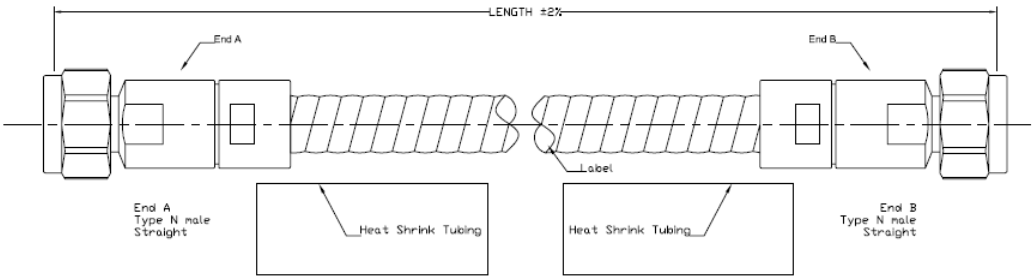
ENVIRONMENTAL CHA RACTERISTICS		
operating temperature range	-50 / +85 °C	-58 / +185 °F
fire resistance	NO	
halogen free	YES	

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 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%)

Address: 203-205 Blackburn Road, Mount Waverley, VIC 3149 Australia

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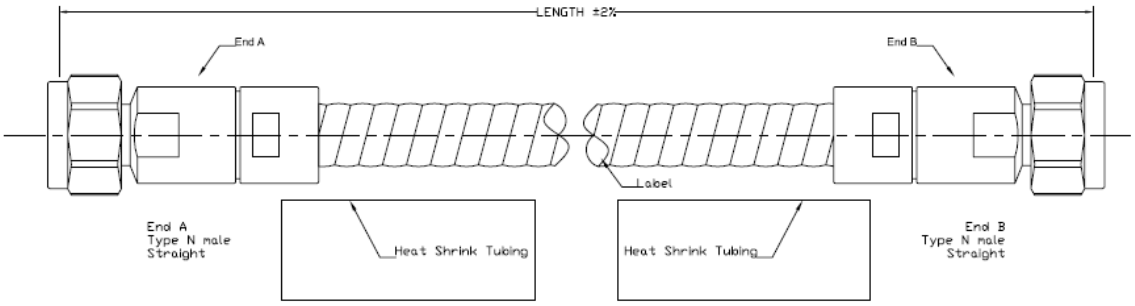
CORRUNGATED CABLE ½”

(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



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