



ROJONE[®]
PTY. LTD.



***RF & Microwave
Cable Assembly Catalogue***



ROJONE
PTY. LTD.

RF & MICROWAVE CABLE ASSEMBLIES

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Introduction

Rojone is a well-equipped, professional and progressive Australian owned & operated company. Established in 1981, today we occupy our own 2100-plus square metre office, store and production facility at Ingleburn, south of Sydney.

Our Production is equipped with dedicated test instruments, Vector Network & Spectrum Analysers (HP8720D, HP8753B, 8495E), a Thermoline Thermal Chamber for temperature cycling cables, auxiliary items such as precision 3 Schleuniger 207 and their latest CS5400 cable stripping machine, inspection microscopes, pin depth gauges, intermodulation equipment, and automated test software.

Our strength is in our commitment to service. We provide quality products through unique arrangements with leading component manufacturers and through the dedication of our manufacturing team and technical staff who take pride in a job well done.

Rojone Pty. Limited maintains a Quality System compliant to the ISO9001 Standard. Rojone is third party Accredited by the Military and a number of military subcontractors and major OEM customers.

Contact Us

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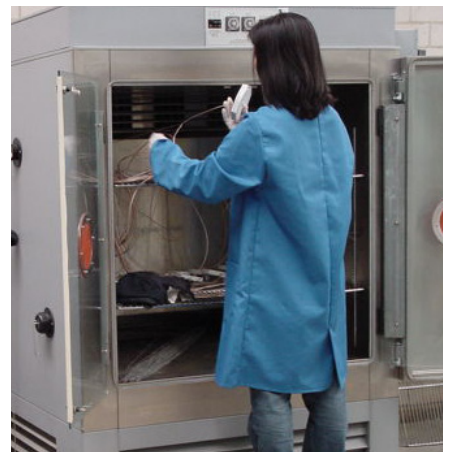
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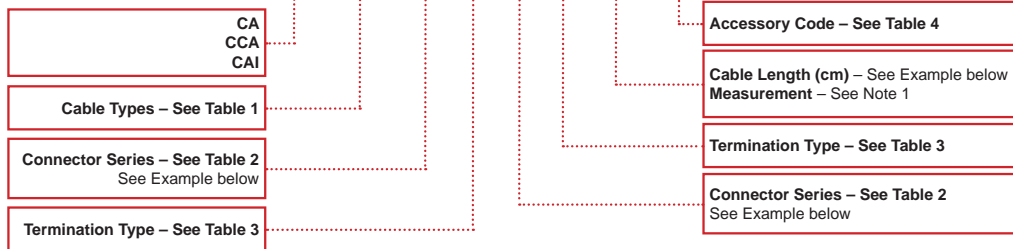
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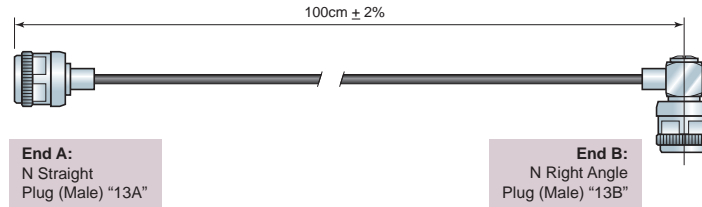


Part Number Construction

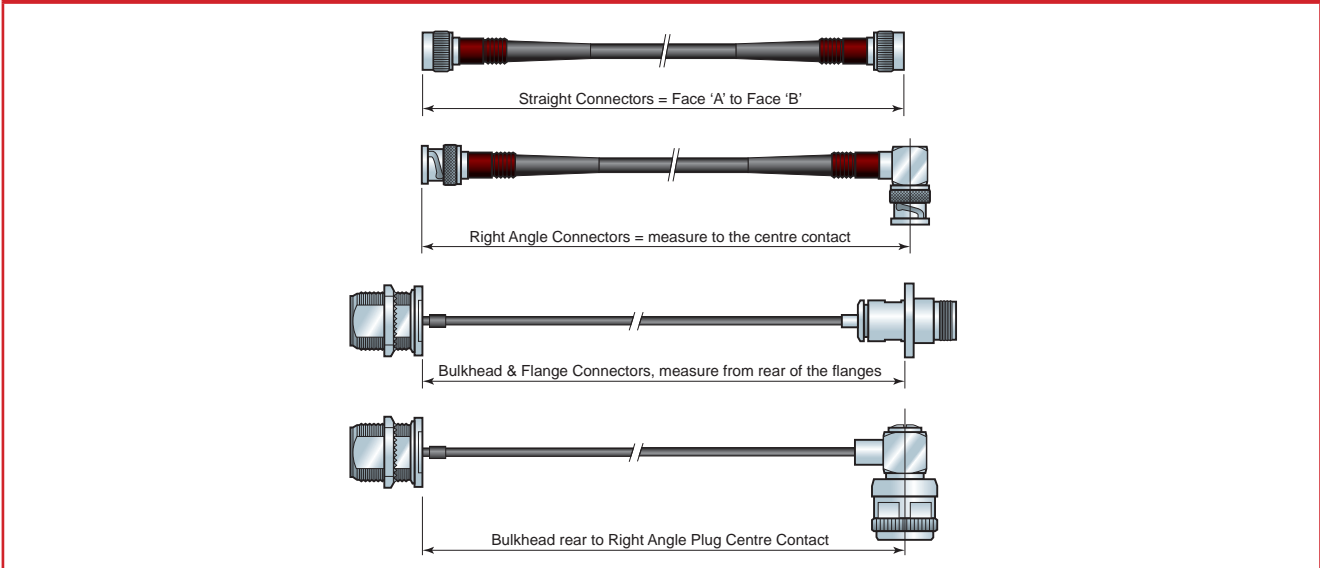
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CA – Professional Cable Assembly CAI – Cable Assembly: Low Intermodulation (IM) tested
 CCA – Commercial grade cable assembly * Low Intermodulation Testing for cables.



NOTE 1: Samples of Measurement of Assembly Length – 100cm = 1 Mtr (Tolerance ±2%)



Rojone is able to test and qualify assemblies in house for low intermodulation operation. Low IM cable assemblies are identified with a part number prefix of CAI-. Intermodulation testing is carried out using our Sumitek two tone test apparatus 2 x 43dBm tones at 900MHz. Customers need to select the IM level required as a -140, -150 or -160 dBc from our Accessory Code (Table 4) to add to the part number as the suffix.

Please select cables and connectors suitable for Low IM applications.

Cable options – TCOM-400, RG142, RG400, RG223, RG316NS, TZC-500-25 and the Heliac cable range.

Connector options Low IM N types (connector code 15) or DIN-7/16 (connector code 30).

CABLE TYPES SELECTION (TABLE 1)

Mil Spec Coaxial Cables

RG & M17 CABLES						Attenuation dB/100ft @ 25 degrees C						
Code No	Cable Type	Impedance	Shield	Max O/D	Dielectric	100MHz	400MHz	1GHz	3GHz	5GHz	10GHz	18GHz
888	Special Cable											
999	Customer supplied cable/antenna for re-terminating											
000	Customer supplied cable											
001	RG6	75 Ohms	SPC	0.332"	PE	2.7	5.6	9.4	17.8	-	-	-
01Q	RG6QUAD	75 Ohms	QSC	0.300"	PE	1.9	3.7	6.1	10.9	-	-	-
002	RG11	75 Ohms	BC	0.405"	PE	2.2	4.6	7.7	-	-	-	-
02Q	RG11QUAD	75 Ohms	QSC	0.405"	PVC	1.2	2.4	4.0	7.6	-	-	-
003	RG12	75 Ohms	BC	0.475"	PE	2.2	4.6	7.7	-	-	-	-
004	RG58CU	50 Ohms	TC	0.195"	PE	4.6	9.4	15.3	28.1	-	-	-
005	RG59	75 Ohms	BC	0.242"	PE	3.3	6.9	11.4	-	-	-	-
006	RG59SC	75 Ohms	SBC	0.242"	PE	3.4	7.0	12.0	26.5	42.0	-	-
007	RG62	93 Ohms	BC	0.242"	ASPE	2.8	5.8	9.5	-	-	-	-
008	RG108	78 Ohms	TC	0.235"	PTFE	3.4	7.0	11.5	-	-	-	-
009	RG141A	50 Ohms	SPC	0.190"	PTFE	8.9	8.5	13.8	27.0	39.0	70.0	-
010	RG142B	50 Ohms	2SPC	0.195"	PTFE	3.8	7.8	12.8	23.7	32.0	-	-
011	SF142B	50 Ohms	2SPC*	0.195"	PTFE	3.6	7.4	12.2	22.6	30.6	46.8	68.3
012	RG174A	50 Ohms	TC	0.100"	PE	8.4	17.0	27.4	-	-	-	-
013	RG178B	50 Ohms	SPC	0.072"	PTFE	13.8	27.8	44.4	78.4	-	-	-
014	RG179B	75 Ohms	SPC	0.100"	PTFE	8.1	16.5	26.5	-	-	-	-
015	RG188	50 Ohms	SPC	0.105"	PTFE	8.0	16.2	26.1	46.7	-	-	-
016	RG196	50 Ohms	SPC	0.072"	PTFE	13.8	27.8	44.4	78.4	-	-	-
017	RG180B	95 Ohms	SPC	0.141"	PTFE	6.3	12.8	20.6	-	-	-	-
018	RG213	50 Ohms	BC	0.405"	PE	2.0	4.3	7.3	-	-	-	-
019	RG213ALL	50 Ohms	BC	0.425"	ASPE	1.4	-	-	-	-	-	-
020	RG214	50 Ohms	2SPC	0.425"	PE	2.0	4.3	7.3	14.2	19.7	-	-
021	RG223	50 Ohms	2SPC	0.216"	PE	4.0	8.2	13.4	24.8	33.5	-	-
022	RG303	50 Ohms	SPC	0.170"	PTFE	3.8	7.8	12.8	23.8	-	-	-
023	RG316	50 Ohms	SPC	0.102"	PTFE	8.0	16.2	26.1	46.7	-	-	-
023N	RG316NS	50 Ohms	SPC	0.102"	PTFE	8.0	16.2	26.0	46.7	-	-	-
024	RG400	50 Ohms	2SPC	0.195"	PTFE	4.4	9.0	14.7	26.9	36.1	-	-
025	M17/129-RG401	50 Ohms	BCT	0.250"	PTFE	1.9	4.0	6.8	13.3	18.6	30.0	45.0
026	M17/129-00001	50 Ohms	TC	0.250"	PTFE	1.9	4.0	6.8	13.3	18.6	30.0	45.0
027	M17/130-RG402	50 Ohms	BCT	0.141"	PTFE	3.3	6.8	11.2	20.9	28.3	45.0	70.0
028	M17/130-00001	50 Ohms	TC	0.141"	PTFE	3.3	6.8	11.2	20.9	28.3	45.0	70.0
029	M17/133-RG405	50 Ohms	BCT	0.085"	PTFE	5.8	11.9	19.2	34.8	46.2	80.0	130.0
030	M17/133-00001	50 Ohms	TC	0.085"	PTFE	3.3	11.9	19.2	34.8	46.2	80.0	130.0
031	AA7740 T-FLEX	50 Ohms	SPC&F*	0.160"	PTFE	-	-	9.0	-	30.0	45.0	70.0
032	AA7741 T-FLEX	50 Ohms	SPC&F*	0.100"	PTFE	-	-	16.0	-	51.5	76.0	112.0
033	SF086H-TC	50 Ohms	SPC&F*	0.086"	PTFE	8.0	18.0	29.0	52.0	55.0	73.0	101.0
034	SF141H-TC	50 Ohms	SPC&F*	0.141"	PTFE	5.0	9.8	14.1	21.0	33.9	50.3	71.3
035	AA7880 T-FLEX	50 Ohms	SPC&F*	0.100"	PTFE	5.0	-	23.0	-	56.0	80.0	118.0
036F	F5J1-50/SCF14-50J	50 Ohms	Cor Cop	0.250"	PEF	1.9	3.9	6.5	12.4	17.0	26.9	-
036L	LDF1-50	50 Ohms	Cor Cop	0.345"	PEF	1.2	2.5	-	7.7	10.3	15.7	-
037F	F5J4-50B/SCF12-50	50 Ohms	Cor Cop	0.500"	PEF	1.0	2.5	3.6	6.7	9.1	15.0	-
037L	LDF4-50/LCF12-50J	50 Ohms	Cor Cop	0.630"	PEF	0.7	1.4	2.2	4.1	5.5	-	-
038	M17/152-00001	50 Ohms	2SPC	0.114"	PTFE	8.0	16.2	26.1	46.7	61.6	-	-
039	TZC-500-25	50 Ohms	SPC&F	0.2244"	PE	2.7	5.0	7.1	14.0	-	-	-
089	LMR-600-PVC	50 Ohms	BC	0.590"	PVC	0.8	1.6	2.6	4.9	6.6	-	-
090	M17/184-00001	75 Ohms	BC	0.242"	PE	3.3	7.0	11.4	-	-	-	-
091	SPEEDFLEX-400	50 Ohms	2SPC	0.195"	REF	5.4	10.8	16.5	-	-	-	-
092	M17/130-00005	50 Ohms	T	0.141"	PTFE	3.3	6.8	11.2	20.9	28.3	-	-
093	SF250H-TC	50 Ohms	SPC&F*	0.250"	PTFE	-	5.0	8.3	15.0	20.8	31.9	46.6
094	SF086-TCJ	50 Ohms	FEB Blk	0.098"	PTFE	1.0	20.0	32.0	55.0	57.0	75.0	-
095	UT-141-75	75 Ohms	SPC&F*	0.141"	PTFE	-	7.0	12.1	22.0	30.0	45.0	63.0
096	SF141-TCJ	50 Ohms	FEP Blk	0.161"	PTFE	5.0	9.0	12.0	20.0	28.0	43.0	-
097	SF250-TJC	50 Ohms	FEP Blk	0.270"	PTFE	-	5.0	8.3	15.0	20.8	31.9	-
098	SF086L-SC	50 Ohms	SPC&F*	0.086"	PTFE	8.0	18.0	29.0	52.0	55.0	-	-
099	SF141L-SC	50 Ohms	SPC&F*	0.141"	PTFE	5.0	10.0	15.0	21.0	34.0	-	-
137	CC-D1370WS5BT	50 Ohms	TC	1.13mm	FEP	-	-	-	86.0	-	-	-

 = Recommended Low IM Cable

Mil Spec Twinax Cables

TROMPETER/MIL SPEC TWINAX CABLES						Attenuation dB/100ft @ 25 degrees C						
Code No	Cable Type	Impedance	Shield	Max O/D	Dielectric	30MHz	50MHz	100MHz	200MHz	500MHz	700MHz	1GHz
061	TWC-124-1A	124 Ohms	TC	0.150"	PTFE	1.2	13.2	18.7	26.4	41.7	49.4	59.0
062	TWC-124-2	124 Ohms	TC	0.245"	PTFE	2.8	3.6	5.1	7.2	11.4	49.4	59.0

LMR Series – Low Loss Times Cables

LMR Series - Low Loss Times Cables					Attenuation dB / 100 FT @ 25 Degrees C							
Code No	Cable Type	Impedance	Shield	Max O/D	Dielectric	30MHz	50MHz	150MHz	450MHz	1.5GHz	2.0GHz	
042	TCOM400	50 Ohms	SPC&F	0.405"	PEF	0.7	0.9	1.5	2.7	5.1	6.0	
047	LMR100	50 Ohms	TCAL	0.110"	PEF	3.9	5.1	9.0	15.8	30.1	35.2	
048	LMR300	50 Ohms	TCAL	0.300"	PEF	1.1	1.4	2.4	4.2	8.0	9.2	
049	LMR195	50 Ohms	TCAL	0.195"	PEF	2.0	2.5	4.4	7.8	14.5	16.9	
050	LMR200	50 Ohms	TCAL	0.200"	PEF	1.8	2.3	4.0	7.0	13.0	15.0	
051	LMR240	50 Ohms	TCAL	0.240"	PEF	1.3	1.7	3.0	5.3	9.9	11.5	
052	LMR400	50 Ohms	TCAL	0.405"	PEF	0.6	0.9	1.5	2.7	5.1	6.0	
053	LMR500	50 Ohms	TCAL	0.500"	PEF	0.5	0.7	1.2	2.2	4.1	4.9	
054	LMR600	50 Ohms	TCAL	0.590"	PEF	0.4	0.5	1.0	1.7	3.3	3.9	
055	LMR900	50 Ohms	TCAL	0.870"	PEF	0.3	0.4	0.7	1.2	2.2	2.6	
056	LMR1200	50 Ohms	TCAL	1.200"	PEF	0.2	0.3	0.5	0.9	1.7	2.0	
057	LMR1700	50 Ohms	TCAL	1.670"	PEF	0.1	0.2	0.3	0.6	1.3	1.5	
058	LMR240-ULTRA	50 Ohms	TCAL	0.240"	PEF	1.6	2.0	3.6	6.3	11.9	13.8	
059	LMR400-ULTRA	50 Ohms	TCAL	0.405"	PEF	0.8	1.0	1.8	3.2	6.1	7.2	
060	LMR600-ULTRA	50 Ohms	TCAL	0.590"	PEF	0.5	0.7	1.1	2.1	4.0	4.6	
066	LMR195-ULTRA	50 Ohms	TCAL	0.195"	PEF	2.3	3.0	5.3	9.3	17.3	20.1	
068	LMR240-DB	50 Ohms	TCAL	0.240"	PEF	1.3	1.7	3.0	5.3	9.9	11.5	
069	LMR195-LLSB	50 Ohms	TCAL	0.195"	PEF	2.2	2.9	4.9	8.6	16.0	19.4	
070	LMR400-DB	50 Ohms	TCAL	0.405"	PEF	0.7	0.9	1.5	2.7	5.1	5.6	
071	LMR500-DB	50 Ohms	TCAL	0.500"	PEF	0.5	0.7	1.2	2.2	4.1	4.8	
072	LMR600-DB	50 Ohms	TCAL	0.590"	PEF	0.4	0.5	1.0	1.7	3.3	3.9	
073	LMR900-DB	50 Ohms	TCAL	0.870"	PEF	0.3	0.4	0.6	1.2	2.2	2.6	
074	LMR1200-DB	50 Ohms	TCAL	1.200"	PEF	0.2	0.3	0.5	0.8	1.7	2.0	
075	LMR1700-DB	50 Ohms	TCAL	1.670"	PEF	0.1	0.2	0.3	0.6	1.3	1.5	
076	LMR200-LLSB	50 Ohms	TCAL	0.195"	PEF	2.1	2.6	4.6	8.0	14.8	17.2	
077	LMR240-LLSB	50 Ohms	TCAL	0.240"	PEF	1.5	2.0	3.4	6.1	11.3	13.3	
078	LMR400-LLSB	50 Ohms	TCAL	0.405"	PEF	0.8	1.0	1.7	3.1	5.8	6.9	
079	LMR500-LLSB	50 Ohms	TCAL	0.500"	PEF	0.6	0.8	1.4	2.5	4.7	5.5	
080	LMR600-LLSB	50 Ohms	TCAL	0.590"	PEF	0.5	0.6	1.1	2.0	3.8	4.5	
081	LMR900-LLSB	50 Ohms	TCAL	0.870"	PEF	0.3	0.4	0.7	1.3	2.4	2.8	
082	LMR1200-LLSB	50 Ohms	TCAL	1.200"	PEF	0.2	0.3	0.5	1.0	1.9	2.2	
083	LMR1700-LLSB	50 Ohms	TCAL	1.670"	PEF	0.2	0.2	0.4	0.7	1.5	1.7	
086	LMR240-75	75 Ohms	TCAL	0.240"	PEF	1.3	1.6	2.9	5.0	9.4	10.9	
087	LMR400-75	75 Ohms	TCAL	0.405"	PEF	0.6	0.8	1.5	2.6	4.9	5.7	
088	LMR600-75	75 Ohms	TCAL	0.590"	PEF	0.4	0.5	0.9	1.6	3.1	3.7	
089	LMR600-PVC	50 Ohms	TCAL	0.590"	PEF	0.4	0.5	1.0	1.7	3.3	3.9	
314	CC-RG179-FR	75 Ohms	SC	0.102"	PEF	NA	NA	9.15	15.55	28.35	34.15	
330	LMR100-FR-DB	50 Ohms	TCAL	0.110"	PEF	3.9	5.1	9.0	15.8	30.1	35.2	
331	LMR195-FR-DB	50 Ohms	TCAL	0.195"	PEF	2.0	2.5	4.4	7.8	14.5	16.9	
332	LMR200-FR-DB	50 Ohms	TCAL	0.200"	PEF	1.8	2.3	4.0	7.0	13.0	15.0	
333	LMR240-FR-DB	50 Ohms	TCAL	0.240"	PEF	1.3	1.7	3.0	5.3	9.9	11.5	
334	LMR300-FR-DB	50 Ohms	TCAL	0.300"	PEF	1.061	1.374	2.40	4.22	7.928	9.243	
335	LMR400-FR-DB	50 Ohms	TCAL	0.405"	PEF	0.6	0.9	1.5	2.7	5.1	6.0	
336	LMR500-FR-DB	50 Ohms	TCAL	0.500"	PEF	0.5	0.7	1.2	2.2	4.1	4.9	
337	LMR600-FR-DB	50 Ohms	TCAL	0.590"	PEF	0.4	0.5	1.0	1.7	3.3	3.9	
338	LMR900-FR-DB	50 Ohms	TCAL	0.870"	PEF	0.3	0.4	0.7	1.2	2.2	2.6	
347	LMR100A-FR	50 Ohms	TCAL	0.110"	PEF	3.9	5.1	9.0	15.8	30.1	35.2	
349	LMR195-FR	50 Ohms	TCAL	0.195"	PEF	2.0	2.5	4.4	7.8	14.5	16.9	
350	LMR200-FR	50 Ohms	TCAL	0.200"	PEF	1.8	2.3	4.0	7.0	13.0	15.0	
351	LMR240-FR	50 Ohms	TCAL	0.240"	PEF	1.3	1.7	3.0	5.3	9.9	11.5	
352	LMR400-FR	50 Ohms	TCAL	0.405"	PEF	0.6	0.9	1.5	2.7	5.1	6.0	
353	LMR500-FR	50 Ohms	TCAL	0.500"	PEF	0.5	0.7	1.2	2.2	4.1	4.9	
354	LMR600-FR	50 Ohms	TCAL	0.590"	PEF	0.4	0.5	1.0	1.7	3.3	3.9	
355	LMR-900-FR	50 Ohms	TCAL	0.870"	PEF	0.3	0.4	0.7	1.2	2.2	2.6	
356	LMR1200-FR	50 Ohms	TCAL	1.200"	PEF	0.2	0.3	0.5	0.9	1.7	2.0	
357	LMR1700-FR	50 Ohms	TCAL	1.670"	PEF	0.1	0.2	0.3	0.6	1.3	1.5	
359	LMR400-ULTRA-FR	50 Ohms	TCAL	0.405"	PEF	0.8	1.0	1.8	3.2	6.1	7.2	
370	LMR400-75-DB	50 Ohms	TCAL	0.405"	PEF	0.6	0.8	1.5	2.6	4.9	5.7	
371	LMR-500-75-DB	75 Ohms	BC	0.500"	PE	1.0	2.0	3.3	6.1	8.1	-	
372	LMR600-75-DB	75 Ohms	TCAL	0.590"	PEF	0.4	0.5	0.9	1.6	3.1	3.7	
387	LMR400-75-FR	75 Ohms	TCAL	0.405"	PEF	0.6	0.8	1.5	2.6	4.9	5.7	

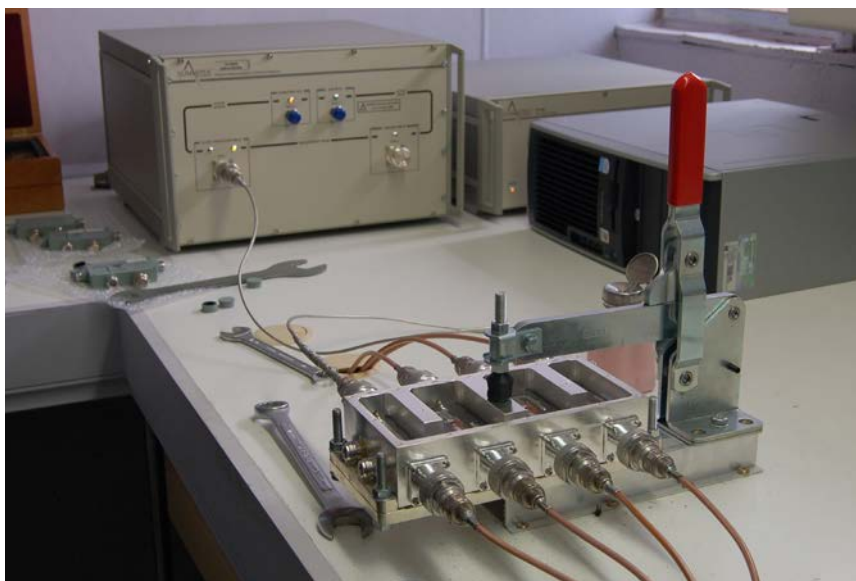
 = Recommended Low IM Cable

Corrugated Copper Foam/Air Dielectric Cables

						Attenuation dB / 100 FT @ 25 Degrees C						
Code No	Cable Type	Impedance	Feature	Size	Dielectric	88 MHz	150 MHz	450 MHz	850 MHz	960 MHz	1880 MHz	2170 MHz
110	SCF14-50J	50 Ohms	Superflexible	1/4"	Foam	5.51	7.24	12.85	18.04	19.27	27.83	30.14
111	SCF14-50JFN	50 Ohms	Superflexible	1/4"	Foam	5.51	7.24	12.85	18.04	19.27	27.83	30.14
120	SCF38-50J	50 Ohms	Superflexible	3/8"	Foam	3.99	5.25	9.31	13.05	13.93	20.09	21.75
121	SCF35-50JFN	50 Ohms	Superflexible	3/8"	Foam	3.99	5.25	9.31	13.05	13.93	20.09	21.75
140	SCF12-50J	50 Ohms	Superflexible	1/2"	Foam	3.14	4.14	7.37	10.36	11.06	16.02	17.37
141	SCF12-50JFN	50 Ohms	Superflexible	1/2"	Foam	3.14	4.14	7.37	10.36	11.06	16.02	17.37
150	UCF78-50J	50 Ohms	Ultraflexible	7/8"	Foam	1.24	1.63	2.91	4.11	4.39	6.38	6.92
151	UCF78-50JFN	50 Ohms	Ultraflexible	7/8"	Foam	1.24	1.63	2.91	4.11	4.39	6.38	6.92
240	LCF12-50J	50 Ohms	Low Loss	1/2"	Foam	2.04	2.68	4.67	6.66	7.11	10.25	11.10
241	LCF12-50JFN	50 Ohms	Low Loss	1/2"	Foam	2.04	2.68	4.67	6.66	7.11	10.25	11.10
250	LCF78-50J	50 Ohms	Low Loss	7/8"	Foam	1.12	1.48	2.67	3.78	4.05	5.93	6.45
251	LCF78-50JFN	50 Ohms	Low Loss	7/8"	Foam	1.12	1.48	2.67	3.78	4.05	5.93	6.45
260	LCFS114-50J	50 Ohms	Low Loss	1 1/4"	Foam	0.79	1.04	1.89	2.99	2.90	4.30	4.69
261	LCFS114-50JFN	50 Ohms	Low Loss	1 1/4"	Foam	0.79	1.04	1.89	2.99	2.90	4.30	4.69

Leaky Feeder Cable

For RF coverage in mines, buildings and other enclosed areas					Attenuation dB / 100 FT @ 25 Degrees C				
Code No	Cable Type	Impedance	Feature	O/D	150 MHz	450 MHz	900 MHz	1900 MHz	2400 MHz
420	T-RAD-400-PVC	50 Ohms	Standard	0.405" (10.29mm)	1.95	3.35	4.70	7.35	8.25
421	T-RAD-400-FR	50 Ohms	Fire Retardant	0.405" (10.29mm)	1.95	3.35	4.70	7.35	8.25
422	T-RAD-400-LLPL	50 Ohms	Orange Fire Retardant PVC	0.405" (10.29mm)	1.90	3.20	4.55	6.85	7.65
423	T-RAD-600-PVC	50 Ohms	Standard	0.59" (14.98mm)	1.34	2.22	3.35	5.30	6.40
424	T-RAD-600-FR	50 Ohms	Fire Retardant	0.59" (14.98mm)	1.34	2.22	3.35	5.30	6.40
425	T-RAD-600-DB	50 Ohms	Waterblocked	0.59" (14.98mm)	1.34	2.22	3.35	5.30	6.40
426	T-RAD-600-LLPL	50 Ohms	Orange Fire Retardant PVC	0.59" (14.98mm)	1.34	2.22	3.35	5.30	
					30 MHz	85 MHz	150 MHz	160 MHz	
430	CC-3529	75 Ohms	Radiating	0.42" (10.8mm)	1.80	3.10	4.30	4.30	
440	RLKU12-50	50 Ohms	Radiating	0.58 (14.7mm)	Foam				
442	RLKU12-50FL	50 Ohms	Radiating	0.58 (14.7mm)	Foam				
450	RLKU78-50	50 Ohms	Radiating	1.12" (28.5mm)	Foam				
452	RLKU78-50FL	50 Ohms	Radiating	1.12" (28.5mm)	Foam				
460	RLKU114-50	50 Ohms	Radiating	1.5" (38.1mm)	Foam				
462	RLKU114-50-FL	50 Ohms	Radiating	1.5" (38.1mm)	Foam				
					150 MHz	450 MHz	900 MHz	1800 MHz	2400 MHz
575	A-575220	50 Ohms	Radiating	0.64" (16.3mm)	1.01	2.01	2.90	4.00	4.79



CONNECTOR SELECTION (TABLE 2) - Alphabetical Order

Code	Connector Type / Series	Frequency	Impedance	Mil Spec or Ref
01	BMA	DC-22 GHz	50 Ohms	
43	BMA COMMERCIAL	DC-22 GHz	50 Ohms	
03	BNC COMMERCIAL	DC-1.5 GHz	50/75 Ohms	MIL-C-39012
04	BNC HT (High Voltage)	DC-2 GHz	50 Ohms	MIL-C-39012
02	BNC PROFESSIONAL	DC-4 GHz	50/75 Ohms	MIL-C-39012
44	BNC SHV (High Voltage)	DC-300 MHz	50 Ohms	MIL-C-39012
05	BR2 (Twinax)	DC-500 MHz	120 Ohms	
06	C	DC-11 GHz	50 Ohms	MIL-C-39012
40	DIN 1.0/2.3	DC-10 GHz	50/75 Ohms	DIN 47297
07	DIN 1.6/5.6	DC-1 GHz	50 Ohms	DIN 47297
60	DIN 4.1/9.5	DC-14 GHz	50 Ohms	
42	DIN 41626	DC-2 GHz	50 Ohms	Intermates DIN 1.0/2.3
30	DIN 7/16	DC-7.5 GHz	50 Ohms	
66	EIA 1-5/8 Flange	DC-3GHz	50 Ohms	
67	EIA 7/8 Flange	DC-3GHz	50 Ohms	
52	Ericsson Snap-In Special	DC-3 GHz	50 Ohms	Custom OEM Design
33	F Connector	DC-2.5 GHz	75 Ohms	
61	FAKRA	DC-4-6	50 Ohms	
34	FME	DC-1.8 GHz	50 Ohms	
08	HN	DC-3 GHz	50 Ohms	MIL-C-39012
09	HN 2	DC-500 MHz	100 Ohms	MIL-C-39012
50	Lemo Connector		Various	
53	Lucent WLAN MC-CARD	DC-3 GHz	50 Ohms	Custom OEM Design
47	MC-CARD	DC-8 GHz	50 Ohms	
10	MCX	DC-6 GHz	50 Ohms	
32	MCX 75	DC-6 GHz	75 Ohms	
31	MMCX	DC-6 GHz	50 Ohms	
11	MQ	DC-4 GHz	50 Ohms	
12	MQ HT	DC-2 GHz	50 Ohms	
37	N 75	DC-1.5 GHz	75 Ohms	MIL-C-39012
14	N COMMERCIAL	DC-11 GHz	50 Ohms	MIL-C-39012
15	N LOW INTERMOD	DC-11 GHz	50 Ohms	MIL-C-39012
13	N MIL VERSION	DC-11 GHz	50 Ohms	MIL-C-39012
36	N PROFESSIONAL 18 GHz	DC-18 GHz	50 Ohms	MIL-C-39012
16	NIM-CAMAC 00.250 / QLA	DC-1.4 GHz	50 Ohms	
64	Q	DC-0.03 GHz	120 Ohms	B4R062631AB issue X3
46	QMA	DC-6 GHz	50 Ohms	
62	QN	DC-6-opt 11 GHz	50 Ohms	
48	R-MCX	DC-6 GHz	50 Ohms	
17	SMA	DC-18 GHz	50 Ohms	MIL-C-39012
38	SMA 26 GHz	DC-26 GHz	50 Ohms	MIL-C-39012
39	SMA 46 GHz (K Type 2.9 Series)	DC-46 GHz	50 Ohms	MIL-C-39012
18	SMA COMMERCIAL	DC-12.4 GHz	50 Ohms	
63	SMA-3.5	DC-26.5 GHz	50 Ohms	
19	SMB	DC-4 GHz	50 Ohms	
19C	SMB CARLOCK	DC-4 GHz	50 Ohms	
19L	SMB LOCK	DC-4 GHz	50 Ohms	
20	SMC	DC-10 GHz	50 Ohms	
21	SMC 75	DC-4 GHz	75 Ohms	
22	SMZ	DC-3 GHz	75 Ohms	
27	SPECIAL			
23	SSMA	DC-18 GHz	50 Ohms	
58	SSMB	DC-4 GHz	50 Ohms	
57	SSMC	DC-4 GHz	50 Ohms	
24	TNC	DC-11 GHz	50/75 Ohms	MIL-C-39012
35	TNC 18 MILITARY	DC-18 GHz	50 Ohms	MIL-C-39012
25	TNC COMMERCIAL	DC-1.5 GHz	50/75 Ohms	
26	TRIAx	DC-10 GHz	Various	
56	TROMPETER TRIAX 3 LUG	DC-500 MHz	Various	MIL-C-49142
55	TROMPETER TWINAX 3 LUG	DC-500 MHz	Various	MIL-C-49142
65	TS9 Series	DC-5 GHz	50 Ohms	
68	UFL	DC-3 GHz	50 Ohms	
29	UHF MINIATURE	DC-2.5 GHz	50 Ohms	
28	UHF STANDARD	DC-500 MHz	50 Ohms	
49	UMP	DC-6 GHz	50 Ohms	
99	UNTERMINATED - NO CONNECTION			

CONNECTOR SELECTION (TABLE 2) - Code No. Order

Code	Connector Type / Series	Frequency	Impedance	Mil Spec or Ref
01	BMA	DC-22 GHz	50 Ohms	
02	BNC PROFESSIONAL	DC-4 GHz	50/75 Ohms	MIL-C-39012
03	BNC COMMERCIAL	DC-1.5 GHz	50/75 Ohms	MIL-C-39012
04	BNC HT (High Voltage)	DC-2 GHz	50 Ohms	MIL-C-39012
05	BR2 (Twinax)	DC-500 MHz	120 Ohms	
06	C	DC-11 GHz	50 Ohms	MIL-C-39012
07	DIN 1.6/5.6	DC-1 GHz	50 Ohms	DIN 47297
08	HN	DC-3 GHz	50 Ohms	MIL-C-39012
09	HN 2	DC-500 MHz	100 Ohms	MIL-C-39012
10	MCX	DC-6 GHz	50 Ohms	
11	MQ	DC-4 GHz	50 Ohms	
12	MQ HT	DC-2 GHz	50 Ohms	
13	N MIL VERSION	DC-11 GHz	50 Ohms	MIL-C-39012
14	N COMMERCIAL	DC-11 GHz	50 Ohms	MIL-C-39012
15	N LOW INTERMOD	DC-11 GHz	50 Ohms	MIL-C-39012
16	NIM-CAMAC 00.250 / QLA	DC-1.4 GHz	50 Ohms	
17	SMA	DC-18 GHz	50 Ohms	MIL-C-39012
18	SMA COMMERCIAL	DC-12.4 GHz	50 Ohms	
19	SMB	DC-4 GHz	50 Ohms	
19C	SMB CARLOCK	DC-4 GHz	50 Ohms	
19L	SMB LOCK	DC-4 GHz	50 Ohms	
20	SMC	DC-10 GHz	50 Ohms	
21	SMC 75	DC-4 GHz	75 Ohms	
22	SMZ	DC-3 GHz	75 Ohms	
23	SSMA	DC-18 GHz	50 Ohms	
24	TNC	DC-11 GHz	50/75 Ohms	MIL-C-39012
25	TNC COMMERCIAL	DC-1.5 GHz	50/75 Ohms	
26	TRIAx	DC-10 GHz	Various	
27	SPECIAL			
28	UHF STANDARD	DC-500 MHz	50 Ohms	
29	UHF MINIATURE	DC-2.5 GHz	50 Ohms	
30	DIN 7/16	DC-7.5 GHz	50 Ohms	
31	MMCX	DC-6 GHz	50 Ohms	
32	MCX 75	DC-6 GHz	75 Ohms	
33	F Connector	DC-2.5 GHz	75 Ohms	
34	FME	DC-1.8 GHz	50 Ohms	
35	TNC 18 MILITARY	DC-18 GHz	50 Ohms	MIL-C-39012
36	N PROFESSIONAL 18 GHz	DC-18 GHz	50 Ohms	MIL-C-39012
37	N 75	DC-1.5 GHz	75 Ohms	MIL-C-39012
38	SMA 26 GHz	DC-26 GHz	50 Ohms	MIL-C-39012
39	SMA 46 GHz (K Type 2.9 Series)	DC-46 GHz	50 Ohms	MIL-C-39012
40	DIN 1.0/2.3	DC-10 GHz	50/75 Ohms	DIN 47297
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46	QMA	DC-6 GHz	50 Ohms	
47	MC-CARD	DC-8 GHz	50 Ohms	
48	R-MCX	DC-6 GHz	50 Ohms	
49	UMP	DC-6 GHz	50 Ohms	
50	Lemo Connector		Various	
52	Ericsson Snap-In Special	DC-3 GHz	50 Ohms	Custom OEM Design
53	Lucent WLAN MC-CARD	DC-3 GHz	50 Ohms	Custom OEM Design
55	TROMPETER TWINAX 3 LUG	DC-500 MHz	Various	MIL-C-49142
56	TROMPETER TRIAX 3 LUG	DC-500 MHz	Various	MIL-C-49142
57	SSMC	DC-4 GHz	50 Ohms	
58	SSMB	DC-4 GHz	50 Ohms	
60	DIN 4.1/9.5	DC-14 GHz	50 Ohms	
61	FAKRA	DC-4-6	50 Ohms	
62	QN	DC-6-opt 11 GHz	50 Ohms	
63	SMA-3.5	DC-26.5 GHz	50 Ohms	
64	Q	DC-0.03 GHz	120 Ohms	B4R062631AB issue X3
65	TS9 Series	DC-5 GHz	50 Ohms	
66	EIA 1-5/8 Flange	DC-3GHz	50 Ohms	
67	EIA 7/8 Flange	DC-3GHz	50 Ohms	
68	UFL	DC-3 GHz	50 Ohms	
99	UNTERMINATED - NO CONNECTION			

TERMINATION TYPE SELECTION (TABLE 3)

Code	Termination Style & Method
A	Crimp Straight Male Plug
AL	Crimp Straight Male w DC Pass Lightning Arrestor
B	Crimp Right Angle Male Plug
C	Crimp Straight Female Jack
D	Crimp Right Angle Female Jack
DD	Crimp Right Angle Female Square Flange Jack (Rear Mount)
E	Crimp Bulkhead Male Plug (Rear Mount)
EF	Crimp Bulkhead Male Plug (Front Mount)
F	Crimp Bulkhead Female Jack (Rear Mount)
FF	Crimp Bulkhead Female Jack (Front Mount)
FL	Crimp Bulkhead Female w DC Pass Arrestor
G	Crimp Square Flange Jack
H	Crimp Straight Reverse Pin Plug
I	Crimp Straight Reverse Pin Receptacle
J	Crimp Bulkhead Reverse Pin Receptacle
K	Crimp Right Angle Reverse Pin Plug
L	Crimp B/Head Right Angle Rev Pin Rec
M	Solder Straight Male Plug
N	Solder Right Angle Male Plug
O	Solder Straight Female Jack
P	Solder Right Angle Female Jack
Q	Solder Bulkhead Male Plug (Rear Mount)
QF	Solder Bulkhead Male Plug (Front Mount)
R	Solder Bulkhead Female Jack (Rear Mount)
RF	Solder Bulkhead Female Jack (Front Mount)
S	Solder Square Flange Jack
T	Crimp Reverse Thread Plug
U	Solder RA Bulkhead Jack (SemiRigid)
X	Hermaphrodite
Y	PCB Right Angle Cable Terminal
Z	PCB Straight Cable Terminal
* W	Supplement W = Waterproof (WF Old)



Front mount bulkhead cable jack inserts from front of panel, secure nut at rear of panel.



Rear mount bulkhead cable jack inserts from rear of panel, secure nut at front of panel.



Crimp N Male and Female for LMR-400 with Lightning Protection, DC-6 GHz; 13AL (male), 13FL (female)

Typical Interface



Reverse Polarity BNC Straight Plug Bayonet Coupling (Code #03H)



Reverse Polarity TNC Straight Plug Screw Coupling (Code #25H)



Reverse Polarity SMA Straight Plug Screw Coupling (Code #18H)



Reverse Thread SMA Straight Plug Reverse Screw Thread (Code #18T)



Lucent MC Card Connector Right Angle Plug Push Coupling (Code #53B) R-229792



Standard SMA (Silver or Gold) Straight Plug (Code #17A)



Reverse Polarity N Straight Plug Screw Coupling (Code #14H)



Reverse Polarity MMCX Straight Push-On Plug (Code #31H)

ACCESSORY CODE (TABLE 4)

Code	Accessory or Special Customer Requirements
Blank	No accessories
01	With Strain Relief Boots (Sleeve) – Colour Black
02	With Strain Relief Boots (Sleeve) – Colour Red
03A	With Strain Relief Boots (Sleeve) – Colour Green
03B	With Strain Relief Boots (Sleeve) – Colour Blue
03C	With Strain Relief Boots (Sleeve) – Colour Yellow
03D	With Strain Relief Boots (Sleeve) – Colour Grey
03E	With Strain Relief Boots (Sleeve) – Colour White
03F	With Strain Relief Boots (Sleeve) – Colour Brown
03G	With Strain Relief Boots (Sleeve) – Colour Orange
03H	With Strain Relief Boots (Sleeve) – Colour Violet
03I	With Strain Relief Boots (Sleeve) – Colour Natural
07	Special Packaging Requirements
08	Glue Heatshrink for Excellent Strain relief and twist tolerance (commonly quoted as standard practice)
08H	Heavy Duty Shrink Strain relief
08R	Ruggedised Strain relief – usually used on Test Cables or where very heavy strain relief needed
09	Complex Manufacturing/Labelling, etc. – Customer to specify. Drawing preferred, but text file as minimum requirement.
10	Hex Nut connector specified by client
11	Knurled connector specified by client
14	Low Intermodulation (IM) Tested to 140 dBc
15	Low Intermodulation (IM) Tested to 150 dBc
16	Low Intermodulation (IM) Tested to 160 dBc
17	Bird Resistant Plastic Conduit
18	Bird Proof Steel Conduit
LF	Lead Free Solder – using 96sc lead free (96% tin and 4% copper/silver mix)
19	Oversheathing – Customer to specify type
20	Heat Treatment / Heat Cycling / Heat Stabilisation
21	Bird Proof Stainless Steel Braid



-08 Suffix Glue Heatshrink Strain Relief



Low IM testing available for all Assemblies.

Abbreviations

ALO/PO	Aluminium/Polyester	SPC & F	Silver Plated Copper Foil & Braid
BC	Bare Copper	TC	Tin Copper
BCT	Bare Copper Tube	TCAL	Tin Copper & Aluminium
CORCOP	Corrugated Copper Tube	PTFE	Solid Polytetrafluoroethylene
SBC	Stranded Bare Copper	PEF	Polyethylene Foam
SPC	Silver Plated Copper	PE	Polyethylene
SCBeCU	Silver Covered, Beryllium Copper	SPCNS	Silver Plated Copper – no steel.

COAX CABLE - CROSS REFERENCE/PERFORMANCE COMPARISON

	Alt Cable	Impedance	O/D	Dielectric	100 MHz	400 MHz	1GHz	3GHz	5GHz	Selection
RG58		50 Ohm	0.195"	PE	4.566	9.384	15.3	28.098	37.695	Std RG58 Conn
	LMR195	50 Ohm	0.195"	PEF	3.615	7.325	11.754	20.956	27.583	Std RG58 Conn
	LMR200	50 Ohm	0.195"	PEF	3.242	6.550	10.477	18.566	24.341	LMR Conn
RG142		50 Ohm	0.195"	PTEF	3.8	7.84	12.837	23.756	32.021	Std RG142 Conn
	LMR195	50 Ohm	0.195"	PEF	3.615	7.325	11.754	20.956	27.583	Std RG58 Conn
	LMR200	50 Ohm	0.200"	PEF	3.242	6.550	10.477	18.566	24.341	LMR Conn
RG174		50 Ohm	0.100"	PE	8.386	17.024	27.38	49.021	64.707	Std RG174 Conn
	LMR100	50 Ohm	0.105"	PE	7.265	14.878	24.164	44.061	58.843	Std RG174 Conn
	RG316	50 Ohm	0.098"	PTFE	8.000	16.200	26.100	46.700		Std RG316 Conn
RG213		50 Ohm	0.405"	PE	2.036	4.324	7.299	14.241	19.805	Std RG213U Conn
	LMR400	50 Ohm	0.405"	PEF	1.248	2.549	4.127	4.478	9.947	LMR Conn
RG214		50 Ohm	0.425"	PE	2.025	4.304	7.268	14.186	19.735	Std RG214 Conn
	LMR400	50 Ohm	0.405"	PEF	1.248	2.549	4.127	4.478	9.947	LMR Conn
RG223		50 Ohm	0.216"	PE	3.965	8.183	13.403	24.812	33.452	Std RG142/RG223 Conn
	LMR195	50 Ohm	0.195"	PEF	3.615	7.325	11.754	20.956	27.583	Std RG58 Conn
RG316		50 Ohm	0.102"	PTFE	7.99	16.219	26.087	46.705	61.649	Std RG316/174 Conn
	LMR100	50 Ohm	0.105"	PE	7.265	14.878	24.164	44.061	58.843	Std RG316/RG174 Conn
RG400		50 Ohm	0.195"	PTFE	4.38	9	14.671	26.932	36.188	Std RG400/142 Conn
	LMR195	50 Ohm	0.195"	PEF	3.615	7.325	11.754	20.956	27.583	Std RG58 Conn
	LMR200	50 Ohm	0.195"	PEF	3.242	6.550	10.477	18.566	24.341	LMR Conn
	LMR240	50 Ohm	0.240"	PEF	2.453	4.973	7.985	14.249	18.767	LMR Conn
RG59		75 Ohm	0.242"	PE	3.326	6.904	11.379	21.307	28.927	Standard RG59/RG62
	LMR240-75	75 Ohm	0.242"	PEF	3.04	6.146	9.839	17.461	22.914	LMR Connector
RG6		75 Ohm	0.332"	PE	2.686	5.624	9.355	17.801	24.401	Std RG6 Connector
	LMR240-75	75 Ohm	0.242"	PEF	3.04	6.146	9.839	17.461	22.914	LMR Connector
	RG6 CATV*	75 Ohm	0.332"	PE		4.000	6.500			CATV Style
RG11		75 Ohm	0.405"	PE	2.200	4.600	7.700			Std RG11 Connector
	RG11 CATV*	75 Ohm	0.407"	PE	1.190	2.500	4.120			CATV Style
	LMR400-75	75 Ohm	0.405"	PE	1.181	2.415	3.914	7.110	9.472	LMR Connector
RG12		75 Ohm	0.463"	PE	2.200	4.600	7.700			Std & Armour Connector
	LMR400-75	75 Ohm	0.405"	PE	1.181	2.415	3.914	7.110	9.472	LMR Connector

EQUIVALENT CORRUGATED COPPER FOAM DIELECTRIC CABLES

RFS Product	Cable Type	Outer Diameter	Equiv Andrew Product
SCF14-50J	Super Flexible Feeder	¼"	FSJ1-50A
SCF38-50J	Super Flexible Feeder	3/8"	FSJ2-50
SCF12-50J	Super Flexible Feeder	½"	FSJ4-50B
UCF78-50J	Ultra Flexible Feeder	7/8"	VXL5-50
UCF114-50J	Ultra Flexible Feeder	1 ¼"	VXL6-50
LCF12-50J	Low Loss Feeder	½"	LDF4-50A
LCF78-50J	Low Loss Feeder	7/8"	LDF5-50A
LCFS114-50J	Low Loss Feeder	1 ¼"	LDF6-50
LCF158-50J	Low Loss Feeder	1 5/8"	LDF7-50A

RF-FLEX CABLE

Features & Benefits

- Meets all MIL-C-17 Requirements
- Excellent Shielding Effectiveness
- Low Passive Intermod (PIM)
- Static Loss, Phase and VSWR vs Flexing
- Uses Standard Solder-On Semi-Rigid Connectors



T-Flex cable was designed to offer a flexible alternative to the standard semi-rigid cables. The unique construction of the T-Flex cable features silver plated copper clad steel inner conductor, extruded solid PTFE dielectric, a dual shield silver plated copper foil strip (100% coverage) and tightly woven 40Ga silver plated copper alloy braid. These cables offer the same leakage characteristics of semi-rigid coax as well as the same mechanical dimensions allowing for the use of standard commercially available solder connectors. The ideal flexibility of the cable eliminates the requirements of the preformed assemblies and special bends = Universal assemblies.

Part Number - AA7740 (T-FLEX 402) & AA7741 (T-FLEX 405)

	AA7740 (T-FLEX 402)	AA7741 (T-FLEX 405)
Centre Conductor	Silver-plated copper clad steel; O/D 0.036"	Silver-plated copper clad steel; O/D 0.0201"
Dielectric	Extruded Solid (PTFE) Polytetrafluoro-ethylene; O/D 0.118"	Extruded Solid (PTFE) Polytetrafluoro-ethylene; O/D 0.064"
1st Shield	Silver-plated copper foil strip (100% coverage); O/D 0.128"	Silver-plated copper foil strip (100% coverage); O/D 0.074"
2nd Shield	Silver-plated copper alloy braid; O/D 0.041"	Silver-plated copper alloy braid; O/D 0.087"
Jacket	Extruded Fluorinated Ethylene Propylene (FEP); O/D 0.0160"	Extruded Fluorinated Ethylene Propylene (FEP); O/D 0.100+0.004"
Impedance	50 ohms	
Capacitance	29.3 pF/ft	
Velocity of Propagation	65.5 dB/100ft	69.5 dB/ft
Max Frequency	8GHz	
Temperature Range	-65°C to +200°C	
Shielding Effectiveness	6.7Kg	
ATTENUATION	AA7740 (T-FLEX 402)	AA7741 (T-FLEX 405)
@ 0.5 GHz (Max)	9.0 dB / 100ft	16.0 dB / 100ft
@ 1.0 GHz (Max)	13.0 dB / 100ft	23.0 dB / 100ft
@ 5.0 GHz (Max)	30.0 dB / 100ft	51.5 dB / 100ft
@ 10.0 GHz (Max)	45.0 dB / 100ft	76.0 dB / 100ft
@ 20.0 GHz (Max)	70.0 dB / 100ft	112.0 dB / 100ft

STRIPFLEX CABLE SF142B

Features & Benefits

- Lower Loss than SF Versions
- Superior Shielding Effectiveness
- Low Passive Intermod (-155 dBc)
- Stable Loss and VSWR vs. Flexing
- Excellent Connector Selection



StripFlex was designed in accordance with MIL-C-17 with the exception of the inner shield and interlayer. Braids of flat strips of copper reduces attenuation at frequency above 1GHz. StripFlex meets all the environmental requirements for MIL-C-17 specification over the full -55 C to +200 C temperature range. The flat braid inner conductor and round wire outer conductor which achieves a 90dB shielding efficiency. The uniformity of the flat braid also results on the lower VSWR and exhibits an overall weight saving of 10% in comparison with equivalent M17 coaxial cables.

Centre Conductor	Silver plated copper clad steel 0.0370"	Capacitance	29.4 pF/FT
Dielectric	Extruded solid (PTFE) Polytetrafluoroethylene 0.017"	Velocity of Propagation	69.5%
Shields	Flat Braid inner, Tape interlayer, round braid outer 0.0155"	Maximum Frequency	34 GHz
Jacket	Extruded Fluorinated Ethylene Propylene (FEP) 0.195"	Temperature Range	-55°C to +200°C
Impedance	50 ohms	Shielding Effectiveness	90 dB/100ft

Attenuation	SF142B
@ 0.5 GHz (max)	9.0 dB/100ft
@ 1.0 GHz (max)	11.0 dB/100ft
@ 5.0 GHz (max)	32.0 dB/100ft
@ 10.0 GHz (max)	45.0 dB/100ft
@ 20.0 GHz (max)	72.0 dB/100ft
Recommended Minimum Bend Radius: 1.00 inch	

LMR SERIES CABLE SPECIFICATIONS

	ATTENUATION (dB per 100 Feet @ +25°C)								
	Times LMR-400	Belden 9913	RG213/ RG214	Heliac FSJ1	Times LMR-240	Belden RG8X	Times LMR-200	R-58	Times LMR-100
Frequency/Size Inches	0.405"	0.405"	0.405"	0.300"	0.240"	0.242"	0.195"	0.195"	0.105"
30 MHz	0.7	0.8	1.2	0.98	1.3	2.0	1.8	2.5	3.9
50 MHz	0.9	0.9	1.6	1.27	1.7	2.5	2.3	3.1	5.1
150 MHz	1.5	1.6	2.8	2.23	3.0	4.7	4.0	6.2	8.9
220 MHz	1.8		3.5		3.7	6.0	4.8	7.4	10.9
450 MHz	2.7	2.8	5.2	3.93	5.3	8.6	6.9	10.6	15.8
900 MHz	3.9	4.2	8.0	5.68	7.6	12.8	9.9	16.5	22.8
1500 MHz	5.1	5.6		7.47	9.9		12.9		30.0
2000 MHz	6.0	6.7		8.73	11.5		15.0		35.0
Attenuation at Any Frequency = [k1 X SqRt (Fmhz)] + [k2 X Fmhz]									
k1	0.11971				0.24222		0.31984		0.67074
k2	0.00032				0.00033		0.00033		0.00174

	POWER HANDLING (kW @ +40°C @ Sea Level)								
	Times LMR-400	Belden 9913	RG213/ RG214	Heliac FSJ1	Times LMR-240	Belden RG8X	Times LMR-200	Mil Std RG-58	Times LMR-100
Frequency/Size Inches	0.405"	0.405"	0.405"	0.300"	0.240"	0.242"	0.195"	0.195"	0.105"
30 MHz	2.1	2.2	1.8	1.28	0.98	0.35	0.67	0.40	0.33
50 MHz	1.7	1.7	1.2	0.99	0.75	0.28	0.52	0.30	0.25
150 MHz	1.0	0.90	0.62	0.56	0.42	0.15	0.30	0.16	0.14
220 MHz	0.83				0.34		0.25		0.12
450 MHz	0.55	0.45	0.30	0.32	0.24	0.08	0.17	0.08	0.08
900 MHz	0.38	0.28	0.18	0.22	0.17	0.05	0.12	0.05	0.05
1500 MHz	0.29	0.20		0.164	0.13		0.09		0.045
2000 MHz	0.25	0.16		0.14	0.11		0.08		8



New LMR Bundled Cables

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LMR SERIES CABLE SPECIFICATIONS (CONT'D)

	ATTENUATION (dB per 100 Feet @ +25°C)								
	Heliax	Times	Heliax	Times	Times	Times	Heliax	Times	Heliax
	LDF6	LMR-1700	LDF5	LMR-1200	LMR-900	LMR-600	LDF4	LMR500	FSJ4
Frequency/Size Inches	1.550"	1.670"	1.090"	1.200"	0.870"	0.590"	0.630"	0.500"	0.520"
30 MHz	0.147	0.149	0.197	0.209	0.271	0.421	0.369	0.540	0.560
50 MHz	0.191	0.195	0.257	0.272	0.351	0.547	0.479	0.700	0.730
150 MHz	0.340	0.347	0.458	0.481	0.619	0.964	0.845	1.220	1.290
220 MHz		0.427		0.589	0.755	1.180		1.490	
450 MHz	0.617	0.632	0.834	0.864	1.100	1.720	1.510	2.170	2.320
900 MHz	0.907	0.936	1.230	1.260	1.600	2.500	2.200	3.130	3.380
1500 MHz	1.220	1.260	1.660	1.690	2.120	3.331	2.930	4.130	4.500
2000 MHz	1.450	1.500	1.970	1.990	2.490	3.900	3.450	4.840	5.310
Attenuation at Any Frequency + [k1 x SqRt (Fmhz)] + [k2 x Fmhz]									
k1		0.2640		0.37340	0.04855	0.07550		0.09657	
k2		0.00016		0.00016	0.00016	0.00026		0.00026	

General Performance Properties									
	LMR1700	LMR1200	LMR900	LMR600	LMR500	LMR400	LMR240	LMR200	LMR100
Conductor (Note 1)	0.527"	0.349"	0.262"	0.176"	0.142"	0.109"	0.056"	0.044"	0.022"
Dielectric (Note 2)	1.350"	0.920"	0.680"	0.455"	0.370"	0.285"	0.150"	0.116"	0.062"
Shield ALUM + TC (Note 3)	1.402"	0.973"	0.732"	0.490"	0.405"	0.320"	0.178"	0.144"	0.085"
Jacked Black PE (Note 4)	1.670"	1.200"	0.870"	0.590"	0.500"	0.405"	0.240"	0.195"	0.105"
Bend Radius (Note 5)	13.5"	6.5"	3.0"	1.5"	1.25"	1.0"	0.75"	0.50"	0.25"
Weight (lbs/foot)	0.74	0.51	0.29	0.13	0.1	0.07	0.04	0.03	0.012
Temperature Range					-40 to + 85 C				
Impedance					50 Ohms				
Velocity (%)	89	88	87	87	86	85	84	83	80
Capacitance (pF per foot)	22.8	23.1	23.4	23.4	23.6	23.9	24.2	24.5	25.4
DC Resistance Ctr Conductor	0.21	0.32	0.54	0.53	0.82	1.39	3.2	5.36	21.4
(Ohms/1000') Shield	0.27	0.37	0.55	1.2	1.27	1.65	3.89	4.9	14.5
Shielding					>90 dB				
Phase Stability					+/-10 ppm/deg C				

Additional Notes	
Note 1	Centre Conductor in LMR900, 1200 & 1700 is Copper Tube LMR400, 500 & 600 is Copper Cald Aluminium LMR100, 200 & 240 is Bare Copper
Note 2	Low Loss, Closed Cell polyethylene foam
Note 3	Aluminium Laminated Tape bonded to Dielectric with Tin Copper overbraid
Note 4	Black, UV protected Polyethylene

LMR Cable Versions	
LMR	Standard Cable
LMR-ULTRA	Ultra Flexible Jacketed
LMR-DB	Watertight Jacket (Flooded) to meet ASTM D4565, REA PE-39 & ANSI S-84-608
LMR-LLSB	Shipboard Military Use meets MIL-C17G & MIL-C24643 Std's
LMR-FR	Fire Retardant Jacket

LLSB – LOW LOSS AIR FRAME, SHIPBOARD, GROUND (TACTICAL) INTERCONNECT

Low Loss – Military/Aerospace Coax

Features and Benefits

- Low Loss
- Superior Shielding Effectiveness
- Fire Retardant (non-halogen)
- Light Weight
- Flexible for Ease of Deployment
- Excellent Connector Selection



Flexible: With very tight minimum bend radius, LLSB cable can be easily routed into and through tight spacers without kinking. The bonded-tape outer conductor provides superior flexibility and ease of bending compared to previous generation M17/RG type, corrugated copper, or smooth wall copper hard-line cables.

Low Loss: LLSB has lower loss than other cables of the same size. This is achieved through the use of a high velocity dielectric and bonded aluminium tape outer conductor. The proprietary gas-injected closed cell foam dielectric prevents water migration through the cable and provides excellent crush resistance.

Fire Retardant: a black UV resistant non-halogen Low Smoke – Fire Retardant cross-linked polyethylene jacket makes the cable rugged and resistant to the full range of military/defence environments. LLSB cables easily achieve FAR 25, NES-711, NES-713 compliance.

RF Shielding: The bonded aluminium tape outer conductor is overlapped to provide 100% coverage, resulting in >90 dB RF shielding (>180 dB crosstalk) and excellent interference immunity (ingress and egress).

Phase Stability: The intimately bonded structure and foam dielectric of LLSB cables provide excellent phase stability over temperature and with bending. The high velocity dielectric results in superior phase stability as compared with solid and air-spaced dielectric cables.

Connectors and Assemblies: A full range of connector interfaces is available in crimp or clamp styles in addition to supporting installation tools. Custom pre-terminated and tested assemblies with phase matching, insertion loss matching, and other special electrical or marking requirements can also be provided.

TMS M17 No.	M17 QPL No.	TMS Dwg No.	Conductor inches (mm)	Dielectric inches (mm)	Shields inches (mm)	Jacket inches (mm)	Min. Bend Radius inches (mm)	Weight lbs/ft (kg/m)	Imped. (ohms) Vp (%)	Capacitance pF/ft (pF/m)	Max. Op Voltage (vms)	Temp. Range °F (°C)	M17 Test Frequency (max)
LLSB-200 M17/220-00001	17-041-99	AA-8469	BC	FoamPE	Alum Tape; 36TC	XLPE	1.0	0.037	50 +/- 2	24.5	1000	-22 to +185	0.05-2.5GHz Swept
			0.044 (1.12)	0.116 (2.95)	0.144 (3.66)	0.195 (4.95)	(25.4)	(0.055)	83	(80.4)	(-30 to +85)		
LLSB-240 M17/221-00001	17-041-99	AA-8470	BC	FoamPE	Alum Tape; 36TC	XLPE	1.25	0.051	50 +/- 2	24.2	1500	-22 to +185	0.05-2.5GHz Swept
			0.056 (1.42)	0.150 (3.81)	0.178 (4.52)	0.242 (6.15)	(31.8)	(0.076)	84	(79.4)	(-30 to +85)		
LLSB-400 M17/223-00001	17-041-99	AA-8471	BCCAI	FoamPE	Alum Tape; 34TC	XLPE	2.0	0.114	50 +/- 2	23.9	3000	-22 to +185	0.05-2.5GHz Swept
			0.108 (2.74)	0.285 (7.24)	0.320 (8.13)	0.405 (10.29)	(50.8)	(0.170)	85	(78.4)	(-30 to +85)		
LLSB-600 M17/225-00001	17-041-99	AA-8473	BCCAI	FoamPE	Alum Tape; 33TC	XLPE	3.0	0.168	50 +/- 2	23.4	5000	-22 to +185	0.05-2.5GHz Swept
			0.176 (4.47)	0.455 (11.56)	0.490 (12.45)	0.590 (14.99)	(76.2)	(0.250)	87	(76.8)	(-30 to +85)		
LLSB-900 M17/226-00001	17-041-99	AA-8474	BC Tube	FoamPE	Alum Tape; 30TC	XLPE	4.5	0.375	50 +/- 2	23.4	7000	-22 to +185	0.05-2.5GHz Swept
			0.262 (6.65)	0.680 (17.27)	0.732 (18.59)	0.870 (22.10)	(114.3)	(0.559)	87	(76.8)	(-30 to +85)		
LLSB-1200 M17/227-00001	17-041-99	AA-8475	BC Tube	FoamPE	Alum Tape; 30TC	XLPE	6.0	0.686	50 +/- 2	23.1	8000	-22 to +185	0.05-2.5GHz Swept
			0.349 (8.86)	0.920 (23.37)	0.972 (24.69)	1.200 (30.48)	(152.4)	(1.022)	88	(75.8)	(-30 to +85)		



COMMON RF COAXIAL CABLE TERMS

Characteristic Impedance

The average characteristic impedance of a coaxial cable is determined by the ratio of the inner diameter of the outer conductor of the centre conductor, and by the dielectric constant of the insulating material between the conductors. The most common values are 50, 75 and 95 Ohms. It is important to note that the actual input impedance at a particular frequency may be quite different from the characteristic, or surge impedance of the cable due to reflection in the line. The VSWR of a particular length of cable is an indicator of the difference between the actual input impedance of the cable and its average characteristic impedance.

Impedance (VSWR) Uniformity

The VSWR of a cable assembly is the summation of reflections of the connectors, the connector termination technique and the cable. The VSWR is the summation of random and periodic reflections within the cable. The VSWR will vary with frequency.

Capacitance & Impedance Stability

The capacitance and impedance of long lengths of cable will exhibit very little change over their operating temperature range (<2%). Semi flexible foam dielectric cables normally exhibit the least change. In short cable lengths at frequencies > 1000 MHZ, the VSWR can vary significantly if dielectric movement at the connector interface occurs.

Attenuation / Insertion Loss

In general, this parameter is the extent to which the amplitude of a signal is decreased by its passage through the cable and connectors; more specifically the ratio of the output signal power, voltage or current to the input-signal power, voltage or current. This ratio is usually expressed in decibels (dB).

Attenuation Uniformity

The attenuation of any cable may not change uniformly as the frequency changes. Random and periodic impedance variations give rise to random and periodic attenuation responses. Narrow band attenuation "Spikes" may occur. If required, cable can be procured in various lengths where a maximum attenuation variation from nominal is specified on a swept basis.

Attenuation Stability

The attenuation of braided cables can increase with time and flexure. The change with time can be caused by corrosion of the braided shield, by contamination of the primary insulation due to jacket plasticizers, and by moisture penetration through the jacket. Attenuation degradation is more pronounced at frequencies above 1 GHz. Cables having bare copper and tinned copper braids exhibit far greater attenuation degradation than do cables having silver plated copper braids.

Velocity of Propagation

The velocity of propagation of a cable is determined primarily by the dielectric constant of the insulating material between the conductors. This property is usually expressed as a percentage of the velocity of light in free space. This information is only obtainable from the cable manufacturer.

Electrical Length Stability

Applications such as antenna feed systems require cable assemblies trimmed to an electrical length rather than a physical length. In these applications, the change of electrical length of a cable with temperature, flexure, tension and other environmental factors are critical.

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