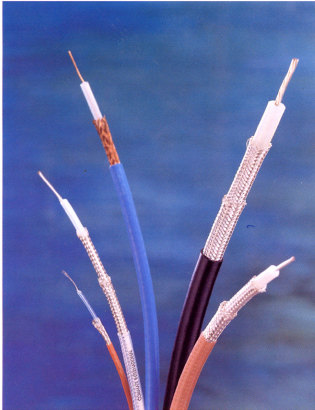




# Commate Communication Systems

## High Performance Coaxial Cables for Military & Commercial

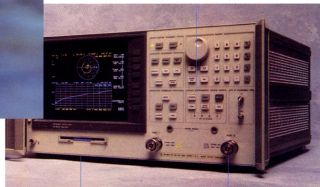
Commate supplies a wild range of high temperature, high performance QPL approved MIL-C-17 coax cables for the military and also the non-QPL products for the commercial markets. According to cables application the material Teflon™ ( PTFE or FEP ) has been adopt for its jacket and dielectric to comply with the best performance. The RG cable with PE dielectric and PVC jacket gives the cable more flexibility and lower cost to match all kinds of market demanding.



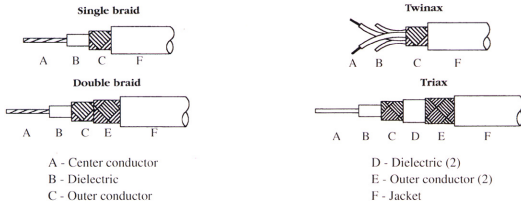
**Center Conductor** - solid or stranded  
bare copper, BC  
silver-plated copper, SPC  
silver-plated copper-clad steel, SCCS  
tin-plated copper, TPC

**Dielectric** - solid  
fluorinated ethylene propylene, FEP  
irradiated polyethylene, PE irradi.  
polyethylene, PE  
polytetrafluoroethylene poly- urethane, PTFE

**Outer conductor** - single or double braid (2)  
bare copper, BC  
silver-plated copper, SPC  
silver-plated copper-clad steel, SCCS  
tin-plated copper, TPC



**Jacket** - extruded or tape wrap  
fluorinated ethylene propylene, FEP  
polyvinyl chloride, PVC  
polytetrafluoroethylene poly-  
urethane, PTFE



**MIL-C-17 Type Coaxial Cable, QPL approved**

**Physical Characteristics**

M17 Number	Center Conductor	Dielectric	Dielectric O.D.	Shield	Jacket	Overall O.D.	Operating Temp °C	Weight (lbs./MFT)	Comments
M1760-RG142	.037 " SCCS	PTFE	.116 "	SPC(2)	FEP	.195 "	-55+200	43.0	
M1793-RG178	.0120 " (7/.004 " ) SCCS	PTFE	.033 "	SPC	FEP	.071 "	-55+200	6.3	
M1794-RG179	.0120 " (7/.004 " ) SCCS	PTFE	.063 "	SPC	FEP	.100 "	-55+200	10.8	
M17110-RG302	.0253 " SCCS	PTFE	.146 "	SPC	FEP	.202 "	-55+200	40.0	
M17111-RG303	.037 " SCCS	PTFE	.116 "	SPC	FEP	.170 "	-55+200	31.0	
M17112-RG304	.059 " SCCS	PTFE	.185 "	SPC(2)	FEP	.280 "	-55+200	94.0	QPL Approval Pending
M17113-RG316	.0201 " (7/.0067 " ) SCCS	PTFE	.060 "	SPC	FEP	.098 "	-55+200	12.2	
M17127-RG393	.094 " (7/.0312 " ) SPC	PTFE	.285 "	SPC(2)	FEP	.390 "	-55+200	165.0	
M17128-RG400	.0384 " (19/.008 " ) SPC	PTFE	.116 "	SPC(2)	FEP	.195 "	-55+200	50.0	
M17131-RG403	.0120 " (7/.004 " ) SCCS	PTFE	.033 "	SPC(2)	FEP(2)	.116 "	-55+200	15.0	Triaxial M1793-RG178
M17152-00001	.0201 " (7/.0067 " ) SCCS	PTFE	.060 "	SPC(2)	FEP	.114 "	-55+200	18.5	Double Shielded RG316

**RG Type Coaxial Cable, Non-QPL**

RG174 /U	.0120 " (7/.0067 " ) TPC	PE	.060 "	TPC	PVC	.110 "	-40+ 85	9.0	
RG213 /U	.089 " (7/.0296 " ) BC	PE	.285 "	BC	PVC	.405 "	-40+ 80	111.0	
RG214 /U	.089 " (7/.0296 " ) SPC	PE	.285 "	SPC(2)	PVC	.425 "	-40+ 80	136.4	
RG223 /U	.034 " SPC	PE	.117 "	SPC(2)	PVC	.212 "	-40+ 80	36.7	
RG178 /U-SF	.0120 " (7/.004 " ) TPC	PE irradi.	.033 "	TPC	PVC	.071 "	-40+105	5.8	Flexible, 105 °C. rated
RG178 /U	.0120 " (7/.004 " ) SPC	FEP	.033 "	SPC	FEP	.071 "	-55+200	6.3	
RG179 B/U	.0120 " (7/.004 " ) SPC	FEP	.063 "	SPC	FEP	.100 "	-55+200	10.8	
RG316 /U	.0201 " (7/.0067 " ) SPC	FEP	.060 "	SPC	FEP	.098 "	-55+200	12.2	
RG142 B/U	.037 " SPC	FEP	.116 "	SPC(2)	FEP	.195 "	-55+200	43.0	
RG400 /U	.0384 " (19/.008 " ) SPC	FEP	.116 "	SPC(2)	FEP	.195 "	-55+200	50.0	

Other type RG cables are available upon requested.

**PTFE Tape Wrap Jacketed RG cables:**

RG187 A/U	.0120 " (7/.004 " ) SCCS	PTFE	.063 "	SPC	PTFE	.100 "	-55+250	9.0	Flexible, 250 °C. rated
RG188 A/U	.0201 " (7/.0067 " ) SCCS	PTFE	.060 "	SPC	PTFE	.100 "	-55+250	12.0	Flexible, 250 °C. rated
RG196 A/U	.0120 " (7/.004 " ) SCCS	PTFE	.034 "	SPC	PTFE	.080 "	-55+250	8.0	Flexible, 250 °C. rated

**Electrical Characteristics**

Type No.	Impedance (ohms)	Capaci. (pf/ft)	Working Voltage (Volts RMS)	Maximum Attenuation (dB/100ft) @					Max Frequency (Ghz)	
				100Mhz	400Mhz	1 Ghz	3Ghz	5Ghz		10Ghz
M1760-RG142	50 +/- 2	29.4	1900	5.5	11.7	19.0	35.0	48.0	-	12.4
M1793-RG178	50 +/- 2	29.4	1000	16.0	33.0	52.0	94.0	-	-	3.0
M1794-RG179	75 +/- 3	19.4	1000	-	21.0	-	-	-	-	-
M17110-RG302	75 +/- 3	19.4	2300	-	8.0	-	26.0	-	-	-
M17111-RG303	50 +/- 2	29.4	1900	3.9	8.6	15.0	28.0	-	-	-
M17112-RG304	50 +/- 2	29.4	3000	2.7	6.4	11.1	22.0	30.0	37.0	8.0
M17113-RG316	50 +/- 2	29.4	1200	11.0	21.0	38.0	58.0	-	-	3.0
M17127-RG393	50 +/- 2	29.4	2500	2.4	5.0	8.8	18.0	24.6	37.0	11.0
M17128-RG400	50 +/- 2	29.4	1900	4.5	10.5	17.0	38.0	50.0	78.0	12.0
M17131-RG403	50 +/- 2	29.4	1000	-	37.0	-	-	-	-	10.0
M17152-00001	50 +/- 2	29.4	1200	11.5	24.0	40.0	75.0	110.0	170.0	12.0
RG174 /U	50 +/- 2	30.8	1200	11.0	21.0	38.0	58.0	-	-	3.0
RG213 /U	50 +/- 2	30.8	2500	2.1	5.0	8.8	18.0	-	-	-
RG214 /U	50 +/- 2	30.8	2500	2.1	5.0	8.8	16.0	-	-	-
RG223 /U	50 +/- 2	30.8	1900	4.9	11.0	18.0	39.5	-	-	-
RG178 /U-SF	50 +/- 2	30.8	1000	16.0	33.0	52.0	94.0	-	-	3.0
RG178 /U	50 +/- 2	29.4	1000	16.0	33.0	52.0	94.0	-	-	3.0
RG179 B/U	75 +/- 3	19.4	1000	-	21.0	-	-	-	-	-
RG316 /U	50 +/- 2	29.4	1200	11.0	21.0	38.0	58.0	-	-	3.0
RG142 B/U	50 +/- 2	29.4	1900	5.5	11.7	19.0	35.0	-	-	-
RG400 /U	50 +/- 2	29.4	1900	4.5	10.5	17.0	38.0	-	-	-

**PTFE Tape Wrap Jacketed RG cables:**

RG187 A/U	75 +/- 3	19.4	1200	-	21.0	-	-	-	-	3.0
RG188 A/U	50 +/- 2	29.4	1200	11.0	21.0	38.0	58.0	-	-	3.0
RG196 A/U	50 +/- 2	29.4	1000	-	29.0	-	-	-	-	-

All figures referenced above are nominal unless otherwise specified.

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