

MIL-C-17 Attenuation and Power Handling

M17 Part Number	Zo (ohms)	Overall Diam. (in.)	DC Resist. (ohms/1000 ft)		M17 Max Freq. (MHz)	Loss Constants Resistive Dielectric		100 MHz Loss (dB/100)		400 MHz Loss (dB/100)		1000 MHz Loss (dB/100)		3000 MHz Loss (dB/100)		5000 MHz Loss (dB/100)		11000 MHz Loss (dB/100)		M17 Max Power (kw) 400MHz
			Center	Outer		k1	k2	Typical	M17 (max)	Typical	M17 (max)	Typical	M17 (max)	Typical	M17 (max)	Typical	M17 (max)	Typical	M17 (max)	
M17/127-RG393	50	0.390	1.54	1.31	11000	0.191	0.00120	2.0	2.4	4.3	5.0	7.2	8.8	14.1	18.0	19.5	24.0	33.2	37.0	1900
M17/128-RG400	50	0.195	8.6	2.22	12400	0.426	0.00120	4.4	4.5	9.0	10.5	14.7	17.0	26.9	38.0	36.1	50.0	57.9	78.0	1050
M17/129-RG401	50	0.250	2.55	0.45	18000	0.178	0.00120	1.9	-	4.0	4.5	6.8	7.5	13.3	16.0	18.6	22.0	31.9	33.0	1900
M17/129-00001	50	0.250	2.55	0.45	18000	0.178	0.00120	1.9	-	4.0	4.5	6.8	7.5	13.3	16.0	18.6	22.0	31.9	33.0	1900
M17/130-RG402	50	0.141	20.00	1.32	20000	0.316	0.00120	3.3	-	6.8	8.0	11.2	12.0	20.9	21.0	28.3	29.0	46.3	45.0	660
M17/130-00001	50	0.141	20.00	1.32	20000	0.316	0.00120	3.3	-	6.8	8.0	11.2	12.0	20.9	21.0	28.3	29.0	46.3	45.0	660
M17/130-00002	50	0.141	20.00	1.32	20000	0.316	0.00120	3.3	-	11.9	14.0	17.7	19.0	30.9	31.0	38.0	39.0	53.8	52.0	660
M17/130-00003	50	0.141	20.00	1.32	20000	0.316	0.00120	3.3	-	11.9	14.0	17.7	19.0	30.9	31.0	38.0	39.0	53.8	52.0	660
M17/130-00004	50	0.141	20.00	1.32	20000	0.316	0.00120	3.3	-	6.8	8.0	11.2	12.0	20.9	21.0	28.3	29.0	46.3	45.0	660
M17/130-00005	50	0.141	20.00	1.32	20000	0.316	0.00120	3.3	-	6.8	8.0	11.2	12.0	20.9	21.0	28.3	29.0	46.3	45.0	660
M17/130-00006	50	0.141	20.00	1.32	20000	0.316	0.00120	3.3	-	11.9	14.0	17.7	19.0	30.9	31.0	38.0	39.0	53.8	52.0	660
M17/130-00007	50	0.141	20.00	1.32	20000	0.316	0.00120	3.3	-	11.9	14.0	17.7	19.0	30.9	31.0	38.0	39.0	53.8	52.0	660
M17/130-00008	50	0.141	20.00	1.32	20000	0.336	0.00120	3.5	-	7.2	8.0	11.8	12.0	22.0	21.0	NA	29.0	48.4	45.0	660
M17/130-00009	50	0.141	20.00	1.32	20000	0.336	0.00120	3.5	-	7.2	8.0	11.8	12.0	22.0	21.0	NA	29.0	48.4	45.0	660
M17/130-00010	50	0.141	20.00	1.32	20000	0.336	0.00120	3.5	-	12.6	14.0	18.7	19.0	32.6	31.0	39.9	39.0	56.2	52.0	660
M17/130-00011	50	0.141	20.00	1.32	20000	0.336	0.00120	3.5	-	12.6	14.0	18.7	19.0	32.6	31.0	39.9	39.0	56.2	52.0	660
M17/130-00012	50	0.141	20.00	1.32	20000	0.316	0.00120	3.3	-	6.8	8.0	11.2	12.0	20.9	21.0	28.3	29.0	46.3	45.0	660
M17/130-00013	50	0.141	20.00	1.32	20000	0.316	0.00120	3.3	-	11.9	14.0	17.7	19.0	30.9	31.0	38.0	39.0	53.8	52.0	660
M17/131-RG403	50	0.116	234	4.89	10000	1.365	0.00120	13.8	13.0	27.8	29.0	44.4	50.0	78.4	94.0	102.5	120.0	156.4	150.0	95
M17/132-00001	50	0.071	234	14.42	10000	1.365	0.00200	13.9	-	28.1	33.0	45.2	NA	NA	NA	NA	NA	NA	NA	90
M17/133-RG405	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	11.9	15.0	19.2	22.0	34.8	37.0	46.2	50.0	72.9	80.0	210
M17/133-00001	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	11.9	15.0	19.2	22.0	34.8	37.0	46.2	50.0	72.9	80.0	210
M17/133-00002	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	11.9	15.0	19.2	22.0	34.8	37.0	46.2	50.0	72.9	80.0	210
M17/133-00003	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	11.9	15.0	19.2	22.0	34.8	37.0	46.2	50.0	72.9	80.0	210
M17/133-00004	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	19.8	25.0	29.6	34.0	46.9	50.0	60.1	65.0	72.9	90.0	210
M17/133-00005	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	19.8	25.0	29.6	34.0	46.9	50.0	60.1	65.0	72.9	90.0	210
M17/133-00006	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	11.9	15.0	19.2	22.0	34.8	37.0	46.2	50.0	72.9	80.0	210
M17/133-00007	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	11.9	15.0	19.2	22.0	34.8	37.0	46.2	50.0	72.9	80.0	210
M17/133-00008	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	11.9	15.0	19.2	22.0	34.8	37.0	46.2	50.0	72.9	80.0	210
M17/133-00009	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	11.9	15.0	19.2	22.0	34.8	37.0	46.2	50.0	72.9	80.0	210
M17/133-00010	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	19.8	25.0	29.6	34.0	46.9	50.0	60.1	65.0	72.9	90.0	210
M17/133-00011	50	0.0865	64.8	2.68	20000	0.569	0.00120	5.8	-	19.8	25.0	29.6	34.0	46.9	50.0	60.1	65.0	72.9	90.0	210
M17/133-00012	50	0.0865	64.8	2.68	20000	0.606	0.00120	6.2	-	12.6	15.0	20.4	22.0	49.7	37.0	63.5	50.0	76.8	80.0	210
M17/133-00013	50	0.0865	64.8	2.68	20000	0.606	0.00120	6.2	-	12.6	15.0	20.4	22.0	49.7	37.0	63.5	50.0	76.8	80.0	210
M17/133-00014	50	0.0865	64.8	2.68	20000	0.606	0.00120	6.2	-	21.0	25.0	31.4	34.0	49.7	50.0	63.5	65.0	76.8	90.0	210

MIL-C-17 Attenuation and Power Handling

M17 Part Number	Zo (ohms)	Overall Diam. (in.)	DC Resist. (ohms/1000 ft)		M17 Max Freq. (MHz)	Loss Constants Resistive Dielectric		100 MHz Loss (dB/100)		400 MHz Loss (dB/100)		1000 MHz Loss (dB/100)		3000 MHz Loss (dB/100)		5000 MHz Loss (dB/100)		11000 MHz Loss (dB/100)		M17 Max Power (kw) 400MHz
			Center	Outer		k1	k2	Typical	M17 (max)	Typical	M17 (max)	Typical	M17 (max)	Typical	M17 (max)	Typical	M17 (max)	Typical	M17 (max)	
M17/223-00002	50	0.475	1.39	1.65	2500	0.14387	0.00031	1.5	1.7	3.0	3.5	4.9	5.7	8.8	9.4	-	-	-	-	750
M17/224-00001	50	0.500	0.81	1.27	2500	0.11364	0.00031	1.2	1.4	2.4	2.8	3.9	4.6	7.1	7.6	-	-	-	-	987
M17/224-00002	50	0.570	0.81	1.27	2500	0.11364	0.00031	1.2	1.4	2.4	2.8	3.9	4.6	7.1	7.6	-	-	-	-	987
M17/225-00001	50	0.590	.524	1.20	2500	0.08888	0.00031	0.9	1.1	1.9	2.2	3.1	3.7	5.8	6.1	-	-	-	-	1219
M17/225-00002	50	0.665	.524	1.20	2500	0.08888	0.00031	0.9	1.1	1.9	2.2	3.1	3.7	5.8	6.1	-	-	-	-	1219
M17/226-00001	50	0.870	.541	0.55	2500	0.06091	0.00019	0.6	0.7	1.3	1.4	2.1	2.4	3.9	3.9	-	-	-	-	1979
M17/226-00002	50	0.945	.541	0.55	2500	0.06091	0.00019	0.6	0.7	1.3	1.4	2.1	2.4	3.9	3.9	-	-	-	-	1979
M17/227-00001	50	1.200	.323	0.37	2500	0.04396	0.00019	0.5	0.5	1.0	1.1	1.6	1.8	3.0	3.1	-	-	-	-	2768
M17/227-00002	50	1.300	.323	0.37	2500	0.04396	0.00019	0.5	0.5	1.0	1.1	1.6	1.8	3.0	3.1	-	-	-	-	2768
M17/228-00001	50	1.670	.209	0.27	2500	0.03113	0.00019	0.3	0.4	0.7	0.9	1.2	1.4	2.3	2.6	-	-	-	-	3950
M17/228-00002	50	1.770	.209	0.27	2500	0.03113	0.00019	0.3	0.4	0.7	0.9	1.2	1.4	2.3	2.6	-	-	-	-	3950

Notes:

- Attenuation (typical) at any Frequency = $k1 \times \text{SqRt}(\text{Fmhz}) + k2(\text{Fmhz})$
- BC shielded cables used up to 1 GHz maximum due to braid oxidation over time.
- TC shielded cables used up to 1 GHz maximum due to high loss of Tin Plating.
- SPC shielded cables may be used up to their Cutoff Frequency.
- Maximum Frequency listed in Table is as specified by MIL-C-17.
- Cutoff frequency may be higher than M17 max frequency.
- Power Data Given for 50 ohm Cables Only.
- Power Data for SPC/PTFE based on +250C center conductor.
- Power Data for PE dielectrics based on +80C center conductor.
- Power Data for foam PE dielectrics based on +100C center conductor.
- DC resistance of outer conductor includes all shield layers in parallel.
- Consult Factory for not listed.