



# STANDARD COPPER 50 OHM Semi-Rigid CABLES

Standard copper 50 ohm Semi-Rigid cables feature low attenuation and VSWR covering the entire microwave spectrum. With numerous connector options available off-the-shelf, this family of cables is one of the most versatile available today. They meet the demands of package density and provide total shielding for elimination of signal loss and noise.

Micro-Coax Description	UT-013	UT-020	UT-034	UT-034-TP	UT-034-SP
MIL-DTL-17 Description	-	-	UT-034-M17	UT-034-TP-M17	-
MIL-DTL-17 Part Number	-	-	M17/154-00001	M17/154-00002	-

## DIMENSIONS

	Units					
Outer Conductor Diameter	inch	0.013 ± 0.001	0.023 ± 0.001	0.034 ± 0.001	0.034 +0.002/-0.001	0.034 +0.002/-0.001
	millimeter	0.330 ± 0.025	0.584 ± 0.025	0.864 ± 0.025	0.864 +0.051/-0.025	0.864 +0.051/-0.025
Dielectric Diameter	inch	-	-	0.026 ± 0.001	0.026 ± 0.001	-
	millimeter	-	-	0.660 ± 0.025	0.660 ± 0.025	-
Center Conductor Diameter	inch	0.0031 ± 0.0005	0.0050 ± 0.0005	0.0080 ± 0.0005	0.0080 ± 0.0005	0.0080 ± 0.0005
	millimeter	0.0787 ± 0.0127	0.1270 ± 0.0127	0.2032 ± 0.0127	0.2032 ± 0.0127	0.2032 ± 0.0127
Straight Length (Maximum)	feet	10	10	15	15	15
	meter	3.05	3.05	4.57	4.57	4.57
Coiled Length (Maximum) <sup>1</sup>	feet	-	-	25	25	25
	meter	-	-	7.62	7.62	7.62

<sup>1</sup> Add "TYPE" to the part description for coiled lengths, example: UT-034-TYPE

## MATERIALS

Outer Conductor	Copper	Copper	Copper	Copper	Copper
Outer Conductor Plating	None	None	None	Tin	Silver
Dielectric	PTFE	PTFE	PTFE	PTFE	PTFE
Center Conductor	SPCW	SPCW	SPCW	SPCW	SPCW
RoHS Compliant	Yes	Yes	Yes	Yes	Yes

## MECHANICAL CHARACTERISTICS

Outer Conductor Integrity Temp.	°C	150	150	150	150	150
Operating Temperature (Max.)	°C	125	125	125	125	125
Inside Bend Radius (Minimum)	inch	0.050	0.050	0.050	0.050	0.050
	millimeter	1.270	1.270	1.270	1.270	1.270
Weight	lbs/100 ft	0.03	0.10	0.22	0.22	0.22
	kg/100 m	0.05	0.15	0.33	0.33	0.33

## ELECTRICAL CHARACTERISTICS

Characteristic Impedance	ohm	50.0 ± 2.0	50.0 ± 2.0	50.0 ± 1.5	50.0 ± 1.5	50.0 ± 1.5
Capacitance	pF/ft	29.0	29.0	29.0	29.0	29.0
	pF/m	95.2	95.2	95.2	95.2	95.2
Velocity of Propagation	%	70	70	70	70	70
Corona Extinction Voltage	VRMS @ 60 Hz	150	500	750	750	750
Voltage Withstanding	VRMS @ 60 Hz	900	1500	2100	2100	2100
Higher Order Mode Frequency	GHz	402	239	155	155	155
Attenuation (dB/100 ft, Typical)	0.5 GHz	87.8	51.6	34.0	34.0	34.0
	1.0 GHz	124.4	73.3	48.3	48.3	48.3
	5.0 GHz	280.5	166.1	110.4	110.4	110.4
	10.0 GHz	399.1	237.4	158.5	158.5	158.5
	18.0 GHz	539.3	322.3	216.5	216.5	216.5
	26.5 GHz	658.2	394.9	266.6	266.6	266.6
	40.0 GHz	814.9	491.4	333.7	333.7	333.7
	50.0 GHz	915.5	553.8	377.5	377.5	377.5
	65.0 GHz	1,050.4	638.1	437.0	437.0	437.0
Power (Watts CW @ 20 °C, Maximum)	0.5 GHz	6.4	17.2	35.7	30.5	28.5
	1.0 GHz	4.5	12.1	25.2	21.5	20.0
	5.0 GHz	2.0	5.4	11.1	9.5	8.8
	10.0 GHz	1.4	3.8	7.7	6.6	6.2
	18.0 GHz	1.0	2.8	5.7	4.8	4.5
	26.5 GHz	0.9	2.3	4.6	3.9	3.7
	40.0 GHz	0.7	1.8	3.7	3.2	3.0
	50.0 GHz	0.6	1.6	3.3	2.8	2.6
	65.0 GHz	0.5	1.4	2.8	2.4	2.3
90.0 GHz	0.5	1.2	2.4	2.0	1.9	

# STANDARD COPPER 50 OHM Semi-Rigid CABLES

Micro-Coax Description	UT-034C	UT-047	UT-047-TP	UT-047-SP	UT-047C	UT-056
MIL-DTL-17 Description	-	UT-047-M17	UT-047-TP-M17	-	-	-
MIL-DTL-17 Part Number	-	M17/151-00001	M17/151-00002	-	-	-

## DIMENSIONS

	Units						
Outer Conductor Diameter	inch	0.034 ± 0.001	0.047 ± 0.001	0.047 +0.002/-0.001	0.047 +0.002/-0.001	0.047 ± 0.001	0.056 ± 0.002
	millimeter	0.864 ± 0.025	1.194 ± 0.025	1.194 +0.051/-0.025	1.194 +0.051/-0.025	1.194 ± 0.025	1.422 ± 0.051
Dielectric Diameter	inch	-	0.037 ± 0.001	0.037 ± 0.001	-	-	-
	millimeter	-	0.940 ± 0.025	0.940 ± 0.025	-	-	-
Center Conductor Diameter	inch	0.0080 ± 0.0005	0.0113 ± 0.0005	0.0113 ± 0.0005	0.0113 ± 0.0005	0.0113 ± 0.0005	0.0113 ± 0.0005
	millimeter	0.2032 ± 0.0127	0.2870 ± 0.0127	0.2870 ± 0.0127	0.2870 ± 0.0127	0.2870 ± 0.0127	0.2870 ± 0.0127
Straight Length (Maximum)	feet	15	20	20	20	20	20
	meter	4.57	6.10	6.10	6.10	6.10	6.10
Coiled Length (Maximum) <sup>1</sup>	feet	25	50	50	50	50	50
	meter	7.62	15.24	15.24	15.24	15.24	15.24

<sup>1</sup> Add "TYPE" to the part description for coiled lengths, example: UT-034-TYPE

## MATERIALS

Outer Conductor	Copper	Copper	Copper	Copper	Copper	Copper
Outer Conductor Plating	None	None	Tin	Silver	None	None
Dielectric	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE
Center Conductor	SPC	SPCW	SPCW	SPCW	SPC	SPCW
RoHS Compliant	Yes	Yes	Yes	Yes	Yes	Yes

## MECHANICAL CHARACTERISTICS

Outer Conductor Integrity Temp.	°C	150	175	175	175	175	200
Operating Temperature (Max.)	°C	125	150	150	150	150	175
Inside Bend Radius (Minimum)	inch	0.063	0.050	0.050	0.050	0.125	0.125
	millimeter	1.600	1.270	1.270	1.270	3.175	3.175
Weight	lbs/100 ft	0.22	0.40	0.40	0.40	0.40	0.70
	kg/100 m	0.33	0.60	0.60	0.60	0.60	1.05

## ELECTRICAL CHARACTERISTICS

Characteristic Impedance	ohm	50.0 ± 3.0	50.0 ± 1.5	50.0 ± 1.5	50.0 ± 1.5	50.0 ± 2.5	50.0 ± 2.5
Capacitance	pF/ft	29.0	29.0	29.0	29.0	29.0	29.0
	pF/m	95.2	95.2	95.2	95.2	95.2	95.2
Velocity of Propagation	%	70	70	70	70	70	70
Corona Extinction Voltage	VRMS @ 60 Hz	750	1000	1000	1000	1000	1500
Voltage Withstanding	VRMS @ 60 Hz	2100	3000	3000	3000	3000	3000
Higher Order Mode Frequency	GHz	155	109	109	109	109	109
Attenuation (dB/100 ft, Typical)	0.5 GHz	34.0	24.0	24.0	24.0	24.0	24.0
	1.0 GHz	48.3	34.2	34.2	34.2	34.2	34.2
	5.0 GHz	110.4	78.8	78.8	78.8	78.8	78.8
	10.0 GHz	158.5	113.8	113.8	113.8	113.8	113.8
	18.0 GHz	216.5	156.5	156.5	156.5	156.5	156.5
	26.5 GHz	266.6	193.8	193.8	193.8	193.8	193.8
	40.0 GHz	333.7	244.2	244.2	244.2	244.2	244.2
	50.0 GHz	377.5	277.5	277.5	277.5	277.5	277.5
	65.0 GHz	437.0	323.0	323.0	323.0	323.0	323.0
Power (Watts CW @ 20 °C, Maximum)	90.0 GHz	525.5	391.3	391.3	391.3	391.3	391.3
	0.5 GHz	35.7	80.5	67.5	62.2	80.5	110.4
	1.0 GHz	25.2	56.6	47.4	43.8	56.6	77.6
	5.0 GHz	11.1	24.7	20.7	19.1	24.7	34.0
	10.0 GHz	7.7	17.2	14.4	13.3	17.2	23.6
	18.0 GHz	5.7	12.6	10.5	9.7	12.6	17.3
	26.5 GHz	4.6	10.2	8.5	7.9	10.2	14.0
	40.0 GHz	3.7	8.1	6.8	6.3	8.1	11.2
	50.0 GHz	3.3	7.2	6.0	5.5	7.2	9.9
65.0 GHz	2.8	6.2	5.2	4.8	6.2	8.5	
90.0 GHz	2.4	5.1	4.3	4.0	5.1	7.1	

# STANDARD COPPER 50 OHM Semi-Rigid CABLES

Micro-Coax Description	UT-056-STR	UT-070C	UT-085-H	UT-085-H-TP	UT-085C-H
MIL-DTL-17 Description	-	-	UT-085-H-M17	UT-085-H-TP-M17	UT-085C-H-M17
MIL-DTL-17 Part Number	-	-	M17/133-RG-405	M17/133-00001	M17/133-00002

## DIMENSIONS

	Units					
Outer Conductor Diameter	inch	0.056 ± 0.002	0.070 ± 0.001	0.0865 ± 0.0010	0.0865 +0.0020/-0.0010	0.0865 ± 0.0010
	millimeter	1.422 ± 0.051	1.778 ± 0.025	2.197 ± 0.025	2.197 +0.051/-0.025	2.197 ± 0.025
Dielectric Diameter	inch	-	-	0.066 ± 0.001	0.066 ± 0.001	0.066 ± 0.001
	millimeter	-	-	1.676 ± 0.025	1.676 ± 0.025	1.676 ± 0.025
Center Conductor Diameter	inch	7 x 0.004 ± 0.0005	0.0179 ± 0.0005	0.0201 ± 0.0005	0.0201 ± 0.0005	0.0201 ± 0.0005
	millimeter	7 x 0.1016 ± 0.0127	0.4547 ± 0.0127	0.5105 ± 0.0127	0.5105 ± 0.0127	0.5105 ± 0.0127
Straight Length (Maximum)	feet	20	20	20	20	20
	meter	6.10	6.10	6.10	6.10	6.10
Coiled Length (Maximum) <sup>1</sup>	feet	50	50	150	150	150
	meter	15.24	15.24	45.72	45.72	45.72

<sup>1</sup> Add "TYPE" to the part description for coiled lengths, example: UT-034-TYPE

## MATERIALS

Outer Conductor	Copper	Copper	Copper	Copper	Copper
Outer Conductor Plating	None	None	None	Tin	None
Dielectric	PTFE	PTFE	PTFE	PTFE	PTFE
Center Conductor	Stranded SPCW	SPC	SPCW	SPCW	SPC
RoHS Compliant	Yes	Yes	Yes	Yes	Yes

## MECHANICAL CHARACTERISTICS

Outer Conductor Integrity Temp.	°C	200	135	175	175	175
Operating Temperature (Max.)	°C	175	100	125	125	125
Inside Bend Radius (Minimum)	inch	0.063	0.125	0.125	0.125	0.125
	millimeter	1.600	3.175	3.175	3.175	3.175
Weight	lbs/100 ft	0.72	0.80	1.42	1.42	1.43
	kg/100 m	1.08	1.20	2.13	2.13	2.15

## ELECTRICAL CHARACTERISTICS

Characteristic Impedance	ohm	50.0 ± 4.0	50.0 ± 1.0	50.0 ± 1.0	50.0 ± 1.0	50.0 ± 1.0
Capacitance	pF/ft	29.0	29.0	29.0	29.0	29.0
	pF/m	95.2	95.2	95.2	95.2	95.2
Velocity of Propagation	%	70	70	70	70	70
Corona Extinction Voltage	VRMS @ 60 Hz	1000	1200	1500	1500	1500
Voltage Withstanding	VRMS @ 60 Hz	3000	4800	5400	5400	5400
Higher Order Mode Frequency	GHz	111	68	61	61	61
Attenuation (dB/100 ft, Typical)	0.5 GHz	24.7	15.2	13.6	13.6	13.6
	1.0 GHz	35.2	21.7	19.5	19.5	19.5
	5.0 GHz	81.0	50.9	46.0	46.0	46.0
	10.0 GHz	117.0	74.4	67.4	67.4	67.4
	18.0 GHz	160.8	103.7	94.3	94.3	94.3
	26.5 GHz	199.0	129.7	118.3	118.3	118.3
	40.0 GHz	250.6	165.5	151.5	151.5	151.5
	50.0 GHz	284.6	189.4	173.8	173.8	173.8
	65.0 GHz	331.2	222.6	-	-	-
Power (Watts CW @ 20 °C, Maximum)	0.5 GHz	107.3	124.0	232.0	190.3	232.0
	1.0 GHz	75.4	86.9	162.5	133.2	162.5
	5.0 GHz	33.0	37.4	69.8	57.2	69.8
	10.0 GHz	23.0	25.7	47.9	39.3	47.9
	18.0 GHz	16.8	18.6	34.6	28.3	34.6
	26.5 GHz	13.6	14.9	27.7	22.7	27.7
	40.0 GHz	10.9	11.8	21.8	17.9	21.8
	50.0 GHz	9.6	10.3	19.1	15.7	19.1
	65.0 GHz	8.3	8.8	-	-	-
90.0 GHz	6.9	-	-	-	-	

# STANDARD COPPER 50 OHM Semi-Rigid CABLES

Micro-Coax Description	UT-085C-H-TP	UT-085	UT-085-TP	UT-085-SP	UT-085C
MIL-DTL-17 Description	UT-085C-H-TP-M17	UT-085-M17	UT-085-TP-M17	UT-085-SP-M17	UT-085C-M17
MIL-DTL-17 Part Number	M17/133-00003	M17/133-00006	M17/133-00007	M17/133-00016	M17/133-00008

## DIMENSIONS

		Units				
Outer Conductor Diameter	inch	0.0865 +0.0020/-0.0010	0.0865 ± 0.001	0.0865 +0.0020/-0.0010	0.0865 +0.0020/-0.0010	0.0865 ± 0.0010
	millimeter	2.197 +0.051/-0.025	2.197 ± 0.025	2.197 +0.051/-0.025	2.197 +0.051/-0.025	2.197 ± 0.025
Dielectric Diameter	inch	0.066 ± 0.001	0.066 ± 0.001	0.066 ± 0.001	0.066 ± 0.001	0.066 ± 0.001
	millimeter	1.676 ± 0.025	1.676 ± 0.025	1.676 ± 0.025	1.676 ± 0.025	1.676 ± 0.025
Center Conductor Diameter	inch	0.0201 ± 0.0005	0.0201 ± 0.0005	0.0201 ± 0.0005	0.0201 ± 0.0005	0.0201 ± 0.0005
	millimeter	0.5105 ± 0.0127	0.5105 ± 0.0127	0.5105 ± 0.0127	0.5105 ± 0.0127	0.5105 ± 0.0127
Straight Length (Maximum)	feet	20	20	20	20	20
	meter	6.10	6.10	6.10	6.10	6.10
Coiled Length (Maximum) <sup>1</sup>	feet	150	150	150	150	150
	meter	45.72	45.72	45.72	45.72	45.72

<sup>1</sup> Add "TYPE" to the part description for coiled lengths, example: UT-034-TYPE

## MATERIALS

Outer Conductor	Copper	Copper	Copper	Copper	Copper
Outer Conductor Plating	Tin	None	Tin	Silver	None
Dielectric	PTFE	PTFE	PTFE	PTFE	PTFE
Center Conductor	SPC	SPCW	SPCW	SPCW	SPC
RoHS Compliant	Yes	Yes	Yes	Yes	Yes

## MECHANICAL CHARACTERISTICS

Outer Conductor Integrity Temp.	°C	175	175	175	175	175
Operating Temperature (Max.)	°C	125	125	125	125	125
Inside Bend Radius (Minimum)	inch	0.125	0.050	0.050	0.050	0.050
	millimeter	3.175	1.270	1.270	1.270	1.270
Weight	lbs/100 ft	1.43	1.42	1.42	1.42	1.43
	kg/100 m	2.15	2.13	2.13	2.13	2.15

## ELECTRICAL CHARACTERISTICS

Characteristic Impedance	ohm	50.0 ± 1.0	50.0 ± 1.0	50.0 ± 1.0	50.0 ± 1.0	50.0 ± 1.5
Capacitance	pF/ft	29.0	29.0	29.0	29.0	29.0
	pF/m	95.2	95.2	95.2	95.2	95.2
Velocity of Propagation	%	70	70	70	70	70
Corona Extinction Voltage	VRMS @ 60 Hz	1500	1500	1500	1500	1500
Voltage Withstanding	VRMS @ 60 Hz	5400	5400	5400	5400	5400
Higher Order Mode Frequency	GHz	61	61	61	61	61
Attenuation (dB/100 ft, Typical)	0.5 GHz	13.6	13.6	13.6	13.6	13.6
	1.0 GHz	19.5	19.5	19.5	19.5	19.5
	5.0 GHz	46.0	46.0	46.0	46.0	46.0
	10.0 GHz	67.4	67.4	67.4	67.4	67.4
	18.0 GHz	94.3	94.3	94.3	94.3	94.3
	26.5 GHz	118.3	118.3	118.3	118.3	118.3
	40.0 GHz	151.5	151.5	151.5	151.5	151.5
	50.0 GHz	173.8	173.8	173.8	173.8	173.8
	65.0 GHz	-	-	-	-	-
Power (Watts CW @ 20 °C, Maximum)	0.5 GHz	190.3	232.0	190.3	173.5	232.0
	1.0 GHz	133.2	162.5	133.2	121.5	162.5
	5.0 GHz	57.2	69.8	57.2	52.2	69.8
	10.0 GHz	39.3	47.9	39.3	35.8	47.9
	18.0 GHz	28.3	34.6	28.3	25.8	34.6
	26.5 GHz	22.7	27.7	22.7	20.7	27.7
	40.0 GHz	17.9	21.8	17.9	16.3	21.8
	50.0 GHz	15.7	19.1	15.7	14.3	19.1
	65.0 GHz	-	-	-	-	-
90.0 GHz	-	-	-	-	-	

# STANDARD COPPER 50 OHM Semi-Rigid CABLES

Micro-Coax Description	UT-085C-TP	UT-085C-SP	UT-141A-HA	UT-141A-H-TP	UT-141A
MIL-DTL-17 Description	UT-085C-TP-M17	-	UT-141-HA-M17	UT-141-HA-TP-M17	UT-141-SA-M17
MIL-DTL-17 Part Number	M17/133-00009	-	M17/130-RG-402	M17/130-00001	M17/130-00004

## DIMENSIONS

	Units	UT-085C-TP	UT-085C-SP	UT-141A-HA	UT-141A-H-TP	UT-141A
Outer Conductor Diameter	inch	0.0865 +0.0020/-0.0010	0.0865 +0.0020/-0.0010	0.141 ± 0.001	0.141 +0.002/-0.001	0.141 ± 0.001
	millimeter	2.197 +0.051/-0.025	2.197 +0.051/-0.025	3.581 ± 0.025	3.581 +0.051/-0.025	3.581 ± 0.025
Dielectric Diameter	inch	0.066 ± 0.001	-	0.1175 ± 0.0010	0.1175 ± 0.0010	0.1175 ± 0.0010
	millimeter	1.676 ± 0.025	-	2.985 ± 0.025	2.985 ± 0.025	2.985 ± 0.025
Center Conductor Diameter	inch	0.0201 ± 0.0005	0.0201 ± 0.0005	0.0362 ± 0.0007	0.0362 ± 0.0007	0.0362 ± 0.0007
	millimeter	0.5105 ± 0.0127	0.5105 ± 0.0127	0.9195 ± 0.0178	0.9195 ± 0.0178	0.9195 ± 0.0178
Straight Length (Maximum)	feet	20	20	20	20	20
	meter	6.10	6.10	6.10	6.10	6.10
Coiled Length (Maximum) <sup>1</sup>	feet	150	150	150	150	150
	meter	45.72	45.72	45.72	45.72	45.72

<sup>1</sup> Add "TYPE" to the part description for coiled lengths, example: UT-034-TYPE

## MATERIALS

Outer Conductor	Copper	Copper	Copper	Copper	Copper
Outer Conductor Plating	Tin	Silver	None	Tin	None
Dielectric	PTFE	PTFE	PTFE	PTFE	PTFE
Center Conductor	SPC	SPC	SPCW	SPCW	SPCW
RoHS Compliant	Yes	Yes	Yes	Yes	Yes

## MECHANICAL CHARACTERISTICS

Outer Conductor Integrity Temp.	°C	175	175	175	175	175
Operating Temperature (Max.)	°C	125	125	125	125	125
Inside Bend Radius (Minimum)	inch	0.050	0.050	0.250	0.250	0.075
	millimeter	1.270	1.270	6.350	6.350	1.905
Weight	lbs/100 ft	1.43	1.43	3.29	3.29	3.29
	kg/100 m	2.15	2.15	4.94	4.94	4.94

## ELECTRICAL CHARACTERISTICS

Characteristic Impedance	ohm	50.0 ± 1.5	50.0 ± 1.5	50.0 ± 1.0	50.0 ± 1.0	50.0 ± 1.0
Capacitance	pF/ft	29.0	29.0	29.0	29.0	29.0
	pF/m	95.2	95.2	95.2	95.2	95.2
Velocity of Propagation	%	70	70	70	70	70
Corona Extinction Voltage	VRMS @ 60 Hz	1500	1500	1900	1900	1900
Voltage Withstanding	VRMS @ 60 Hz	5400	5400	9600	9600	9600
Higher Order Mode Frequency	GHz	61	61	34	34	34
Attenuation (dB/100 ft, Typical)	0.5 GHz	13.6	13.6	7.6	7.6	7.6
	1.0 GHz	19.5	19.5	11.3	11.3	11.3
	5.0 GHz	46.0	46.0	27.6	27.6	27.6
	10.0 GHz	67.4	67.4	41.6	41.6	41.6
	18.0 GHz	94.3	94.3	59.6	59.6	59.6
	26.5 GHz	118.3	118.3	76.2	76.2	76.2
	40.0 GHz	151.5	151.5	-	-	-
	50.0 GHz	173.8	173.8	-	-	-
	65.0 GHz	-	-	-	-	-
Power (Watts CW @ 20 °C, Maximum)	0.5 GHz	190.3	173.5	600.4	483.5	600.4
	1.0 GHz	133.2	121.5	450.0	336.2	450.0
	5.0 GHz	57.2	52.2	180.0	140.4	180.0
	10.0 GHz	39.3	35.8	120.0	94.6	120.0
	18.0 GHz	28.3	25.8	83.0	66.8	83.0
	26.5 GHz	22.7	20.7	65.6	52.7	65.6
	40.0 GHz	17.9	16.3	-	-	-
	50.0 GHz	15.7	14.3	-	-	-
	65.0 GHz	-	-	-	-	-

# STANDARD COPPER 50 OHM Semi-Rigid CABLES

Micro-Coax Description	UT-141A-TP	UT-141A-SP	UT-141C	UT-141C-TP	UT-141C-SP
MIL-DTL-17 Description	UT-141-SA-TP-M17	UT-141-SA-SP-M17	-	-	-
MIL-DTL-17 Part Number	M17/130-00005	M17/130-00012	-	-	-

## DIMENSIONS

		Units				
Outer Conductor Diameter	inch	0.141 +0.002/-0.001	0.141 +0.002/-0.001	0.141 ± 0.001	0.141 +0.002/-0.001	0.141 +0.002/-0.001
	millimeter	3.581 +0.051/-0.025	3.581 +0.051/-0.025	3.581 ± 0.025	3.581 +0.051/-0.025	3.581 +0.051/-0.025
Dielectric Diameter	inch	0.1175 ± 0.0010	0.1175 ± 0.0010	-	-	-
	millimeter	2.985 ± 0.025	2.985 ± 0.025	-	-	-
Center Conductor Diameter	inch	0.0362 ± 0.0007	0.0362 ± 0.0007	0.0362 ± 0.0007	0.0362 ± 0.0007	0.0362 ± 0.0007
	millimeter	0.9195 ± 0.0178	0.9195 ± 0.0178	0.9195 ± 0.0178	0.9195 ± 0.0178	0.9195 ± 0.0178
Straight Length (Maximum)	feet	20	20	20	20	20
	meter	6.10	6.10	6.10	6.10	6.10
Coiled Length (Maximum) <sup>\1</sup>	feet	150	150	150	150	150
	meter	45.72	45.72	45.72	45.72	45.72

\1 Add "TYPE" to the part description for coiled lengths, example: UT-034-TYPE

## MATERIALS

Outer Conductor	Copper	Copper	Copper	Copper	Copper
Outer Conductor Plating	Tin	Silver	None	Tin	Silver
Dielectric	PTFE	PTFE	PTFE	PTFE	PTFE
Center Conductor	SPCW	SPCW	SPC	SPC	SPC
RoHS Compliant	Yes	Yes	Yes	Yes	Yes

## MECHANICAL CHARACTERISTICS

Outer Conductor Integrity Temp.	°C	175	175	175	175	175
Operating Temperature (Max.)	°C	125	125	125	125	125
Inside Bend Radius (Minimum)	inch	0.075	0.075	0.075	0.075	0.075
	millimeter	1.905	1.905	1.905	1.905	1.905
Weight	lbs/100 ft	3.29	3.29	3.32	3.32	3.32
	kg/100 m	4.94	4.94	4.98	4.98	4.98

## ELECTRICAL CHARACTERISTICS

Characteristic Impedance	ohm	50.0 ± 1.0	50.0 ± 1.0	50.0 ± 1.0	50.0 ± 1.0	50.0 ± 1.0
Capacitance	pF/ft	29.0	29.0	29.0	29.0	29.0
	pF/m	95.2	95.2	95.2	95.2	95.2
Velocity of Propagation	%	70	70	70	70	70
Corona Extinction Voltage	VRMS @ 60 Hz	1900	1900	1900	1900	1900
Voltage Withstanding	VRMS @ 60 Hz	9600	9600	9600	9600	9600
Higher Order Mode Frequency	GHz	34	34	34	34	34
Attenuation (dB/100 ft, Typical)	0.5 GHz	7.6	7.6	7.6	7.6	7.6
	1.0 GHz	11.3	11.3	11.3	11.3	11.3
	5.0 GHz	27.6	27.6	27.6	27.6	27.6
	10.0 GHz	41.6	41.6	41.6	41.6	41.6
	18.0 GHz	59.6	59.6	59.6	59.6	59.6
	26.5 GHz	76.2	76.2	76.2	76.2	76.2
	40.0 GHz	-	-	-	-	-
	50.0 GHz	-	-	-	-	-
	65.0 GHz	-	-	-	-	-
Power (Watts CW @ 20 °C, Maximum)	0.5 GHz	483.5	436.4	600.4	483.5	436.4
	1.0 GHz	336.2	303.4	450.0	336.2	303.4
	5.0 GHz	140.4	126.7	180.0	140.4	126.7
	10.0 GHz	94.6	85.3	120.0	94.6	85.3
	18.0 GHz	66.8	60.3	83.0	66.8	60.3
	26.5 GHz	52.7	47.6	65.6	52.7	47.6
	40.0 GHz	-	-	-	-	-
	50.0 GHz	-	-	-	-	-
	65.0 GHz	-	-	-	-	-
90.0 GHz	-	-	-	-	-	

# STANDARD COPPER 50 OHM Semi-Rigid CABLES

Micro-Coax Description	UT-215-TP	UT-250C	UT-250C-TP
MIL-DTL-17 Description	-	UT-250A-M17	UT-250A-TP-M17
MIL-DTL-17 Part Number	-	M17/129-RG-401	M17/129-00001

DIMENSIONS		Units		
Outer Conductor Diameter	inch	0.215 +0.003/-0.002	0.250 ± 0.001	0.250 +0.002/-0.001
	millimeter	5.461 +0.076/-0.051	6.350 ± 0.025	6.350 +0.051/-0.025
Dielectric Diameter	inch	-	0.209 ± 0.002	0.209 ± 0.002
	millimeter	-	5.309 ± 0.051	5.309 ± 0.051
Center Conductor Diameter	inch	0.0571 ± 0.0005	0.0641 ± 0.0010	0.0641 ± 0.0010
	millimeter	1.4503 ± 0.0127	1.6281 ± 0.0254	1.6281 ± 0.0254
Straight Length (Maximum)	feet	20	20	20
	meter	6.10	6.10	6.10
Coiled Length (Maximum) <sup>1</sup>	feet	150	150	150
	meter	45.72	45.72	45.72

<sup>1</sup> Add "TYPE" to the part description for coiled lengths, example: UT-034-TYPE

## MATERIALS

Outer Conductor	Copper	Copper	Copper
Outer Conductor Plating	Tin	None	Tin
Dielectric	PTFE	PTFE	PTFE
Center Conductor	SPCW	SPC	SPC
RoHS Compliant	Yes	Yes	Yes

## MECHANICAL CHARACTERISTICS

Outer Conductor Integrity Temp.	°C	150	150	150
Operating Temperature (Max.)	°C	125	100	100
Inside Bend Radius (Minimum)	inch	0.375	0.125	0.125
	millimeter	9.525	3.175	3.175
Weight	lbs/100 ft	7.17	10.38	10.38
	kg/100 m	10.76	15.58	15.58

## ELECTRICAL CHARACTERISTICS

Characteristic Impedance	ohm	50.0 ± 2.0	50.0 ± 0.5	50.0 ± 0.5
Capacitance	pF/ft	29.0	29.0	29.0
	pF/m	95.2	95.2	95.2
Velocity of Propagation	%	70	70	70
Corona Extinction Voltage	VRMS @ 60 Hz	3000	3000	3000
Voltage Withstanding	VRMS @ 60 Hz	15000	16800	16800
Higher Order Mode Frequency	GHz	22	19	19
Attenuation (dB/100 ft, Typical)	0.5 GHz	5.1	4.3	4.3
	1.0 GHz	7.5	6.7	6.7
	5.0 GHz	19.1	17.4	17.4
	10.0 GHz	29.4	27.0	27.0
	18.0 GHz	43.3	40.0	40.0
	26.5 GHz	-	-	-
	40.0 GHz	-	-	-
	50.0 GHz	-	-	-
	65.0 GHz	-	-	-
	90.0 GHz	-	-	-
Power (Watts CW @ 20 °C, Maximum)	0.5 GHz	844.1	1,780.0	1,061.4
	1.0 GHz	581.2	914.8	728.6
	5.0 GHz	234.0	364.5	290.1
	10.0 GHz	154.0	238.3	189.5
	18.0 GHz	106.1	163.2	129.7
	26.5 GHz	-	-	-
	40.0 GHz	-	-	-
	50.0 GHz	-	-	-
	65.0 GHz	-	-	-
	90.0 GHz	-	-	-



# STANDARD COPPER 50 OHM Semi-Rigid CABLES

Micro-Coax Description	UT-250C-SP	UT-325C	UT-390C
MIL-DTL-17 Description	-	-	-
MIL-DTL-17 Part Number	-	-	-

DIMENSIONS		Units		
Outer Conductor Diameter	inch	0.250 +0.002/-0.001	0.325 ± 0.002	0.390 ± 0.002
	millimeter	6.350 +0.051/-0.025	8.255 ± 0.051	9.906 ± 0.051
Dielectric Diameter	inch	-	-	-
	millimeter	-	-	-
Center Conductor Diameter	inch	0.0641 ± 0.0010	7 x 0.0312 ± 0.0010	0.102 ± 0.001
	millimeter	1.6281 ± 0.0254	7 x 0.7925 ± 0.0254	2.5908 ± 0.0254
Straight Length (Maximum)	feet	20	20	20
	meter	6.10	6.10	6.10
Coiled Length (Maximum) <sup>1</sup>	feet	150	-	-
	meter	45.72	-	-

<sup>1</sup> Add "TYPE" to the part description for coiled lengths, example: UT-034-TYPE

MATERIALS				
Outer Conductor		Copper	Copper	Copper
Outer Conductor Plating		Silver	None	None
Dielectric		PTFE	PTFE	PTFE
Center Conductor		SPC	Stranded SPC	SPC
RoHS Compliant		Yes	Yes	Yes

MECHANICAL CHARACTERISTICS				
Outer Conductor Integrity Temp.	°C	150	125	175
Operating Temperature (Max.)	°C	100	90	90
Inside Bend Radius (Minimum)	inch	0.125	0.750	0.750
	millimeter	3.175	19.050	19.050
Weight	lbs/100 ft	10.38	15.93	24.40
	kg/100 m	15.58	23.92	36.63

ELECTRICAL CHARACTERISTICS				
Characteristic Impedance	ohm	50.0 ± 0.5	50.0 ± 1.0	50.0 ± 0.5
Capacitance	pF/ft	29.0	29.0	29.0
	pF/m	95.2	95.2	95.2
Velocity of Propagation	%	70	70	70
Corona Extinction Voltage	VRMS @ 60 Hz	3000	3000	6000
Voltage Withstanding	VRMS @ 60 Hz	16800	22800	26700
Higher Order Mode Frequency	GHz	19	14	12
Attenuation (dB/100 ft, Typical)	0.5 GHz	4.3	3.5	3.0
	1.0 GHz	6.7	5.2	4.6
	5.0 GHz	17.4	13.8	12.5
	10.0 GHz	27.0	22.0	20.1
	18.0 GHz	40.0	-	-
	26.5 GHz	-	-	-
	40.0 GHz	-	-	-
	50.0 GHz	-	-	-
	65.0 GHz	-	-	-
Power (Watts CW @ 20 °C, Maximum)	0.5 GHz	951.8	1,702.4	3,425.8
	1.0 GHz	653.3	1,156.5	2,321.5
	5.0 GHz	260.0	443.6	883.1
	10.0 GHz	169.8	283.5	561.6
	18.0 GHz	116.3	-	-
	26.5 GHz	-	-	-
	40.0 GHz	-	-	-
	50.0 GHz	-	-	-
	65.0 GHz	-	-	-
90.0 GHz	-	-	-	