

# TROMPETER CABLE SPECIFICATIONS

## Trompeter Cable Specs

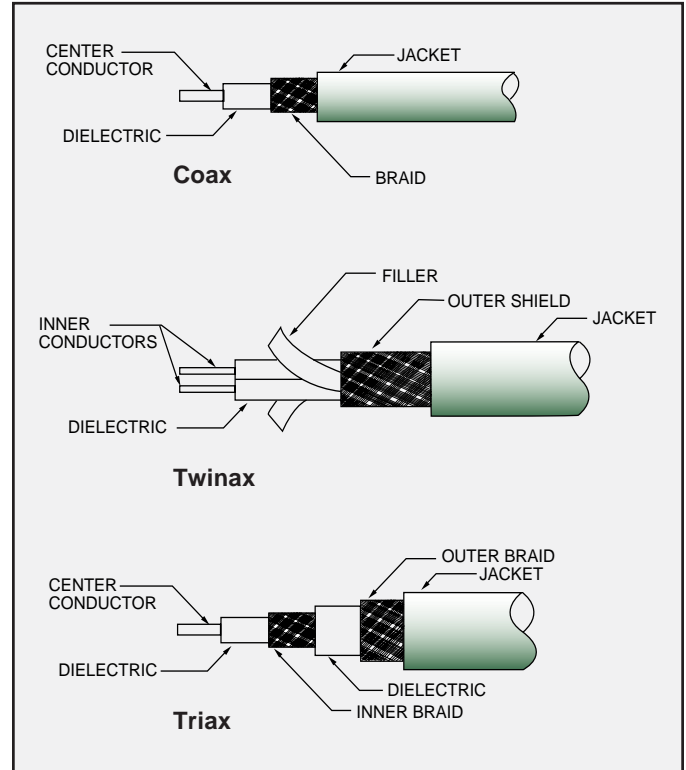
Trompeter cables are manufactured to the listed specifications and offer optimum flexibility, shielding, and performance. Cables with stranded center conductors have greater flexibility and are recommended for short runs at low frequency where constant cable movement might fatigue a single copper-weld center conductor. Trompeter's **M17/176-00002** and **TWAC-78-1F2** are 200°C, Hi-Temp Cables for MIL-STD-1553B data bus applications. Dielectric and fillers made of PTFE (Teflon™) and outer jackets are PFA (Perfluoroalkoxy). All dimensions are in inches. All values without tolerances are *nominal* unless otherwise stated. **TWCH-78-2** has jacket constructed of *flame retardant halogen free polyolefin* with temperature range of -30°C to +80°C.

**TWCP** = Twinax Plenum Cable

**TWCH** = Twinax Blue Flame Retardant Halogen Free Polyolefin Cable

**TRCH** = Triax Yellow Flame Retardant Halogen Free Polyolefin Cable

## CABLE ILLUSTRATIONS



## COAX CABLE SPECS

Cable Designation	COAX:		
	TCC-50-2	TCC-75-2	RG62 A/U
Impedance (Ohms)	50±2	75±3	93±5
Nominal outer dia.	0.195	0.242	0.242
PVC outer	Green	Violet	Black
Braid outer dia.	0.150 Max	0.191 Max	0.191 Max
Braid AWG#/Mat'l	36/Tinned Cu	34/Bare Cu	34/Bare Cu
Dielectric outer dia.	0.116	0.146	0.146
Dielectric mat'l	Solid PE	Foamed PE	PE
Conductor outer dia.	0.0355	0.031	0.0253
Conductor strands/Mat'l	19/.0071 Tinned Cu	7/.010 Tinned Cu	Solid/CCS
Operating temperature range	-40°C to +90°C	-40°C to 85°C	-40°C to 80°C
Minimum bend radius	1.00	1.00	
Max. Opr. VAC (RMS)	1.4 KV	800 V	750 V
Capacitance pF/ft (Max)	30.8	17.3	14.5
Cond. Loop Res. (Ohms/M ft.)		17.6	
<b>Atten. dB/100 ft:</b>			
1 MHz	0.380	0.335	0.250
10 MHz	1.400	1.070	0.900
50 MHz	3.40	2.40	1.90
100 MHz	4.90	3.40	2.80
200 MHz	7.30	4.85	3.70
400 MHz		9.00	5.20
1 GHz	28.80	12.00	8.50
3 GHz		30.00	
Shielded Coverage	93%	93%	94.3% Min

For high temperature cables, see chart on the next page.

# TROMPETER CABLE SPECIFICATIONS

## TWINAX/TRIAX CABLE SPECS

Cable Designation	TWINAX:		HIGH TEMP:				TRIAX:			
	TWC-78-1	TWC-78-2	M17/176-00002	TWAC-78-1F2	TWC-124-1A	TWC-124-2	TRC-50-1	TRC-50-2	TRC-75-1	TRC-75-2
Impedance (Ohms)	78±3	78±3	77±7	77±7	124±4	124±4	50±2	50±2	75±5	75±5
Nominal outer dia.	0.150	0.242	0.129	0.095	0.150	0.245	0.156	0.245	0.189	0.245
Outer braid dia.	0.108	0.195 Max	0.102	0.070	0.105	0.195 Max	0.121	0.210 Max	0.150	0.205
Core outer dia.	0.085	0.154	0.084	0.052	0.085	0.162				
Dielectric outer dia.	0.043	0.076	0.042	0.026	0.043	0.080	0.047	0.116	0.073	0.116
Inner braid outer dia.							0.069 Max	0.146 Max	0.093	0.146 Max
Inner jacket outer dia.							0.101	0.175	0.130	0.175
Conductor outer dia.	.022	0.0370	0.0230 Min.	0.0149	0.0120	0.0220	0.0150	0.0370	0.0120	.0185
Operating temperature Range	-40°C to 80°C	-40°C to 80°C	-55°C to +200°C	-55°C to +200°C	-40°C to +80°C	-40°C to +80°C	-40°C to +75°C	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Minimum bend radius (in.)			1.50	1.25	1.50	1.25	0.75	1.25	1.00	1.25
Max. Opr. VDC	0.6 KV Max	2.0 KV			0.6 KV	2.0 KV	2.0 KV	6.0 KV	2.0 KV	6.0 KV Max
Max. Opr. VAC (RMS)	0.3 KV Max	1.0 KV	750 KV Max	250	0.3 KV	1.0 KV	1.0 KV	2.0 KV	1.0 KV	2.0 KV Max
Capacitance pf/ft. (Max)	20.30 Max (2)	21.20 (3)	24.00	23.00	12.40	12.30 (3)	29.50	32.00 (1)	20.00	20.50 (1)
Cond. loop res. (Ohms/M ft.)	179 Max	19.00 Max	48.00	146.00	570.60	56.80 Max				
<b>Atten. dB/100 ft.:</b>										
1 MHz	2.000	0.700	1.400	2.000	3.250	0.540	2.800	0.500	0.900	0.480
3 MHz	3.000	1.100	2.100		4.400	0.920	3.100	0.800	1.300	0.880
4 MHz	3.500	1.400	2.400		4.800	1.060	3.300	0.900	1.500	1.010
5 MHz	4.000	1.550	2.800		5.200	1.180	3.400	1.100	1.700	1.100
7 MHz	4.500	1.800	3.500		5.600	1.400	3.700	1.300	1.900	1.300
10 MHz	5.300	2.200	4.50 Max	6.500	5.900	1.650	4.100	1.500	2.400	1.500
20 MHz	7.50	3.10			8.30	2.30	5.50	2.30	3.60	2.30
30 MHz	9.20	3.90			10.20	2.80	7.00	2.90	4.50	2.90
40 MHz	10.60	4.50			11.80	3.20	7.50	3.40	5.40	3.30
50 MHz	11.90	5.10			13.20	3.60	9.10	3.90	6.10	3.60
100 MHz	16.80	7.50			18.70	5.10	14.00	5.80	9.70	5.20
200 MHz	23.70	10.50			26.40	7.20	22.00	8.80	16.50	7.60
500 MHz	37.50	16.00			41.70	11.40	40.00	15.30	28.50	10.80
700 MHz	44.30	18.60			49.40	13.50	50.00	18.00	36.00	14.70
1 GHz	53.00	22.50			59.00	16.20	63.00	23.00	45.00	17.60
Shielded coverage	93%	93%	93.3%	90% Min.	93%	93%	93% Min.	93%	93% Min.	93%
Twist per ft.	8.00	4.00	11-14	16.00	8.00	4.00				

## TWINAX/TRIAX: PLENUM/HALOGEN FREE CABLE SPECS

**Notes:**

- (1) = Center Conductor to Inner Braid
- (2) = Conductor to Shield
- (3) = Conductor to Conductor

Cable Designation	TWINAX:					TRIAX:	
	TWCP-78-1	TWCP-78-2	TWCH-78-2	TWCP-124-2	TWCP-124-3	TWCP-124-5	TRCH-50-2
Description	Plenum	Plenum	Halogen Free	Plenum	Plenum	Plenum	Halogen Free
Impedance (Ohms)	78±3	78±3	78±3	124±4	124±4	124±5	50±2
Nominal outer dia.	0.150	0.242	0.242	0.245	0.205	0.325	0.245
Outer braid dia.	0.102	0.165	0.195	0.183	0.183	0.295	0.210
Core outer dia.			0.154	0.163			
Dielectric outer dia.	0.041	0.072	.076	0.080	0.062	0.134	0.116
Inner braid outer dia.						0.043	0.146
Inner jacket outer dia.							0.175
Conductor outer dia.	0.021	0.037	0.037	0.024	0.024	0.048	0.037
Operating temperature range	+125°C	+125°C	-30°C to +80°C	+125°C	-10°C to +75°C	-10°C to +125°C	-30°C to +80°C
Minimum bend radius (in/ft.)	1.50	2.50	1.25	2.5	2.0	3.25	1.25
Max. Opr. VDC			2KV		2500	2500	6 KV
Max. Opr. VAC (RMS)			1KV	1KV	1800	1800	2 KV
Capacitance pf/ft. (Max)	19.6 (3)	18.6(3)	21.2(3)	11.5	12.0(3)	11.0(3)	
Cond. loop res. (Ohms/M ft.)			19.0	47.0	28.4	6.5(3)	10.5
<b>Atten. dB/100 ft.:</b>							
1 MHz	2.00	.60	0.70	.50	0.60	.30	0.50
3 MHz	3.00	1.00	1.10	.85	0.90	.47	0.80
4 MHz	3.50	1.20	1.40		1.10	.64	0.90
5 MHz	4.00	1.40	1.55	1.10	1.20	.69	1.10
7 MHz	4.50	1.60	1.80	1.30	1.40	.79	1.30
10 MHz	5.30	2.00	2.20	1.60	1.60	.94	1.50
20 MHz	7.50	2.80	3.10	2.30	2.20	1.20	2.30
30 MHz	9.20	3.50	3.90		2.80	1.50	2.90
40 MHz	10.60	4.10	4.50		3.20	1.70	3.40
50 MHz	11.90	4.60	5.10	3.70	3.60	2.00	3.90
100 MHz	16.80	6.90	7.50	5.30	5.20	3.00	5.80
200 MHz	23.70	9.90	10.50		7.20	4.50	8.80
500 MHz	37.50	15.40	16.00		11.40	7.00	15.30
700 MHz	44.30	18.30	18.60		13.50	8.40	18.00
1 GHz	53.00	21.80	22.50		16.20	11.00	23.00
Shielded coverage	97%	95%	93%	93%	93%	93%	93%
Twist per ft.	8.0	4.0	4.0	4.0	6.0	6.0	

