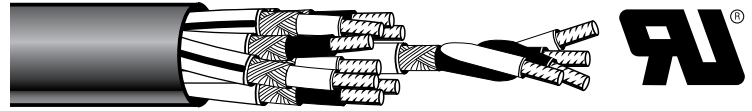


CABLED SHIELDED QUADS



Military & UL Grade

- Pairs (NTQ Series)
- RFI Shielded Cables

Meets U.L. Style 2343 or 2344 for Computer Use

National Wire & Cable Corp. manufactures a complete line of flexible signal and control cables in which each quad is individually shielded and plastic-jacketed. Conforming to MIL-C-27072, these cables provide extended temperature, rough usage, military shielding, excellent flexibility. Provides a minimum of crosstalk between signal channels, plus complete isolation between shields. Excellent for analog signals. All jackets are moisture proof and suitable for use in duct, conduit, aerial, or burial installations.

Conductors are stranded tinned copper with .010" vinyl primary insulation plus .004" nylon insulation over the vinyl per MIL-DTL-16878/17. Insulation for 600 Volts working rating at 105°C. Color-coding: Quads - Black, White, Red, and Green. All conductors are 19 strand.

Shielding is tinned copper braid with 85-90% coverage per MIL-C-7078, and shield angle below 40 degrees for easy pushback.

Jackets over shields are extruded 105°C white polyvinylchloride plastic per MIL-I-631, Type F. Each subcable is individually identified by color code per MIL-STD-681, starting with color #9. Refer to the Table in the National Wire Cable Designers Guide, page 7-12.

All sub-components are planetary cables and contra-helically laid with a mylar tape serve over the cable bundle. The overall sheath is abrasion-resistant black 105°C vinyl thermoplastic per MIL-I-631, Type F.

Optional overall shielding of cabled bundle is 85-95% minimum coverage of tinned copper braid applied per MIL-C-7078 over the tape serve under sheath.

TECHNICAL DATA (ALL CABLES)	
Insulation Break-down Voltage:	Greater than 5000 volts AC RMS, 60 Hz.
Insulation Leakage Resistance:	200 Megohms/1000 ft. at 500 VDC from any conductor to all else in cable.
Sheath Leakage Resistance:	10 Megohms/1000 ft. min. at 500 VDC from overall shield through sheath to saline bath at 25°C.
Usable Temperature Range:	Suitable for continuous use from +105°C to -55°C when stationary. Flexing service: +105°C to -25°C.
Bending Characteristics:	All cables are suitable for flexing to a circle diameter of 6 cable diameters from +105°C to -20°C. Recommended flex diameter should be greater than 20 cable diameters for flexing at -40°C. For continuous flexing applications consult factory.
Crosstalk:	Common-mode, adjacent trios: Worst case, -50 db @ 1 Mhz; totaling to -100 db below 100 kHz. (Ref. MIL-C-23437 for test method.) For 100 ft. test length.

Capacitance (pfd/ft.):		
AWG	WIRE-WIRE	WIRE-SHIELD
16	56	110
18	49	97
20	41	81
22	35	69
24	30	59
26	26	52

NTQ SERIES WITHOUT OVERALL SHIELD - 26, 24, 22, 20, 18 and 16 AWG										NTQ SERIES WITH OVERALL SHIELD - 26, 24, 22, 20, 18 and 16 AWG											
Part No.	No. of Quads	Cond AWG	Cond. Diam.		Jacket Wall		Nom. Diam.		Weight		Part No.	No. of Quads	Cond AWG	Cond. Diam.		Jacket Wall		Nom. Diam.		Weight	
			Inches	MM	Inches	MM	Inches	MM	lbs per 1000 ft	KG/KM				Inches	MM	Inches	MM	Inches	MM	lbs per 1000 ft	KG/KM
NTQ-726J	7	26	.164	4.1	.062	1.6	.620	15.75	201	299	NTQ-726SJ	7	26	.164	4.1	.062	1.6	.645	16.38	251	373
NTQ-1226J	12	26	.164	4.1	.062	1.6	.810	20.57	321	478	NTQ-1226SJ	12	26	.164	4.1	.085	2.1	.881	22.38	426	634
NTQ-1926J	19	26	.164	4.1	.085	2.1	.994	25.2	516	768	NTQ-1926SJ	19	26	.164	4.1	.085	2.1	1.019	25.9	598	890
NTQ-2726J	27	26	.164	4.1	.085	2.1	1.184	30.1	703	1046	NTQ-2726SJ	27	26	.164	4.1	.085	2.1	1.209	30.7	803	1195
NTQ-3726J	37	26	.164	4.1	.085	2.1	1.323	33.6	921	1370	NTQ-3726SJ	37	26	.164	4.1	.085	2.1	1.347	34.2	1034	1539
NTQ-724J	7	24	.176	4.4	.062	1.6	.666	16.66	232	345	NTQ-724SJ	7	24	.176	4.4	.062	1.6	.681	17.30	286	426
NTQ-1224J	12	24	.176	4.4	.085	2.1	.906	23.0	410	610	NTQ-1224SJ	12	24	.176	4.4	.085	2.1	.931	23.6	484	720
NTQ-1924J	19	24	.176	4.4	.085	2.1	1.054	26.8	598	890	NTQ-1924SJ	19	24	.176	4.4	.085	2.1	1.079	27.4	686	1021
NTQ-2724J	27	24	.176	4.4	.085	2.1	1.258	32.0	817	1216	NTQ-2724SJ	27	24	.176	4.4	.085	2.1	1.283	32.6	925	1376
NTQ-3724J	37	24	.176	4.4	.085	2.1	1.406	35.7	1075	1600	NTQ-3724SJ	37	24	.176	4.4	.085	2.1	1.431	36.3	1196	1780
NTQ-722J	7	22	.190	4.8	.062	1.6	.698	17.73	274	408	NTQ-722SJ	7	22	.190	4.8	.062	1.6	.723	18.36	331	493
NTQ-1222J	12	22	.190	4.8	.085	2.1	.964	24.5	482	717	NTQ-1222SJ	12	22	.190	4.8	.085	2.1	.990	25.1	562	836
NTQ-1922J	19	22	.190	4.8	.085	2.1	1.124	28.5	708	1054	NTQ-1922SJ	19	22	.190	4.8	.085	2.1	1.149	29.2	803	1195
NTQ-2722J	27	22	.190	4.8	.085	2.1	1.344	34.1	972	1446	NTQ-2722SJ	27	22	.190	4.8	.085	2.1	1.370	34.8	1088	1619
NTQ-720J	7	20	.210	5.3	.062	1.6	.783	19.89	409	609	NTQ-720SJ	7	20	.210	5.3	.062	1.6	.758	19.25	345	513
NTQ-1220J	12	20	.210	5.3	.085	2.1	1.073	27.3	694	1033	NTQ-1220SJ	12	20	.210	5.3	.085	2.1	1.048	26.6	607	903
NTQ-1920J	19	20	.210	5.3	.085	2.1	1.249	31.7	1004	1493	NTQ-1920SJ	19	20	.210	5.3	.085	2.1	1.224	31.1	900	1339
NTQ-718J	7	18	.234	5.9	.085	2.1	.876	22.25	474	705	NTQ-718SJ	7	18	.234	5.9	.085	2.1	.901	22.9	545	811
NTQ-1218J	12	18	.234	5.9	.085	2.1	1.147	29.1	766	1140	NTQ-1218SJ	12	18	.234	5.9	.085	2.1	1.173	29.8	863	1284
NTQ-1918J	19	18	.234	5.9	.085	2.1	1.344	34.1	1147	1707	NTQ-1918SJ	19	18	.234	5.9	.085	2.1	1.369	34.8	1262	1878
NTQ-716J	7	16	.262	6.6	.085	2.1	.960	24.4	560	833	NTQ-716SJ	7	16	.262	6.6	.085	2.1	.985	25.0	639	951
NTQ-1216J	12	16	.262	6.6	.085	2.1	1.264	32.1	909	1353	NTQ-1216SJ	12	16	.262	6.6	.085	2.1	1.289	32.7	1017	1513
NTQ-1916J	19	16	.262	6.6	.085	2.1	1.484	37.7	1366	2032	NTQ-1916SJ	19	16	.262	6.6	.085	2.1	1.509	38.3	1495	2225

CABLED SHIELDED QUADS - NTQ Series



RoHS COMPLIANT PRODUCTS:

all RoHS products have the letter "R" written into the second position of the Part No.

NRTQ SERIES WITHOUT OVERALL SHIELD - 26, 24, 22, 20, 18 and 16 AWG										NRTQ SERIES WITH OVERALL SHIELD - 26, 24, 22, 20, 18 and 16 AWG											
Part No.	No. of Quads	Cond AWG	Cond. Diam.		Jacket Wall		Nom. Diam.		Weight		Part No.	No. of Quads	Cond AWG	Cond. Diam.		Jacket Wall		Nom. Diam.		Weight	
			Inches	MM	Inches	MM	Inches	MM	lbs per 1000 ft	KG/KM				Inches	MM	Inches	MM	Inches	MM	lbs per 1000 ft	KG/KM
NRTQ-726J	7	26	.164	4.1	.062	1.6	.620	15.75	201	299	NRTQ-726SJ	7	26	.164	4.1	.062	1.6	.645	16.38	251	373
NRTQ-1226J	12	26	.164	4.1	.062	1.6	.810	20.57	321	478	NRTQ-1226SJ	12	26	.164	4.1	.085	2.1	.881	22.38	426	634
NRTQ-1926J	19	26	.164	4.1	.085	2.1	.994	25.2	516	768	NRTQ-1926SJ	19	26	.164	4.1	.085	2.1	1.019	25.9	598	890
NRTQ-2726J	27	26	.164	4.1	.085	2.1	1.184	30.1	703	1046	NRTQ-2726SJ	27	26	.164	4.1	.085	2.1	1.209	30.7	803	1195
NRTQ-3726J	37	26	.164	4.1	.085	2.1	1.323	33.6	921	1370	NRTQ-3726SJ	37	26	.164	4.1	.085	2.1	1.347	34.2	1034	1539
NRTQ-724J	7	24	.176	4.4	.062	1.6	.666	16.66	232	345	NRTQ-724SJ	7	24	.176	4.4	.062	1.6	.681	17.30	286	426
NRTQ-1224J	12	24	.176	4.4	.085	2.1	.906	23.0	410	610	NRTQ-1224SJ	12	24	.176	4.4	.085	2.1	.931	23.6	484	720
NRTQ-1924J	19	24	.176	4.4	.085	2.1	1.054	26.8	598	890	NRTQ-1924SJ	19	24	.176	4.4	.085	2.1	1.079	27.4	686	1021
NRTQ-2724J	27	24	.176	4.4	.085	2.1	1.258	32.0	817	1216	NRTQ-2724SJ	27	24	.176	4.4	.085	2.1	1.283	32.6	925	1376
NRTQ-3724J	37	24	.176	4.4	.085	2.1	1.406	35.7	1075	1600	NRTQ-3724SJ	37	24	.176	4.4	.085	2.1	1.431	36.3	1196	1780
NRTQ-722J	7	22	.190	4.8	.062	1.6	.698	17.73	274	408	NRTQ-722SJ	7	22	.190	4.8	.062	1.6	.723	18.36	331	493
NRTQ-1222J	12	22	.190	4.8	.085	2.1	.964	24.5	482	717	NRTQ-1222SJ	12	22	.190	4.8	.085	2.1	.990	25.1	562	836
NRTQ-1922J	19	22	.190	4.8	.085	2.1	1.124	28.5	708	1054	NRTQ-1922SJ	19	22	.190	4.8	.085	2.1	1.149	29.2	803	1195
NRTQ-2722J	27	22	.190	4.8	.085	2.1	1.344	34.1	972	1446	NRTQ-2722SJ	27	22	.190	4.8	.085	2.1	1.370	34.8	1088	1619
NRTQ-720J	7	20	.210	5.3	.062	1.6	.783	19.89	409	609	NRTQ-720SJ	7	20	.210	5.3	.062	1.6	.758	19.25	345	513
NRTQ-1220J	12	20	.210	5.3	.085	2.1	1.073	27.3	694	1033	NRTQ-1220SJ	12	20	.210	5.3	.085	2.1	1.048	26.6	607	903
NRTQ-1920J	19	20	.210	5.3	.085	2.1	1.249	31.7	1004	1493	NRTQ-1920SJ	19	20	.210	5.3	.085	2.1	1.224	31.1	900	1339
NRTQ-718J	7	18	.234	5.9	.085	2.1	.876	22.25	474	705	NRTQ-718SJ	7	18	.234	5.9	.085	2.1	.901	22.9	545	811
NRTQ-1218J	12	18	.234	5.9	.085	2.1	1.147	29.1	766	1140	NRTQ-1218SJ	12	18	.234	5.9	.085	2.1	1.173	29.8	863	1284
NRTQ-1918J	19	18	.234	5.9	.085	2.1	1.344	34.1	1147	1707	NRTQ-1918SJ	19	18	.234	5.9	.085	2.1	1.369	34.8	1262	1878
NRTQ-716J	7	16	.262	6.6	.085	2.1	.960	24.4	560	833	NRTQ-716SJ	7	16	.262	6.6	.085	2.1	.985	25.0	639	951
NRTQ-1216J	12	16	.262	6.6	.085	2.1	1.264	32.1	909	1353	NRTQ-1216SJ	12	16	.262	6.6	.085	2.1	1.289	32.7	1017	1513
NRTQ-1916J	19	16	.262	6.6	.085	2.1	1.484	37.7	1366	2032	NRTQ-1916SJ	19	16	.262	6.6	.085	2.1	1.509	38.3	1495	2225