

Construction: Two category 6 and one RG6/U quad shield with an overall jacket.

**Construction Details:Cat6**

No. 23 AWG copper conductor insulated with polyethylene.

Two colored mated insulated conductors twisted together to form a pair and four pairs assembled around a pair separator to form a core. The core is jacketed with a flame retardant PVC.

**Color Code:**

Pair	Color Code
1	Blue with White
2	Orange with White
3	Green with White
4	Brown with White

**Standards:**

ANSI/TIA/EIA 568C.2 Category 6  
National Electric Code – Article 800

**Codes and Listings:**

UL 1581: CM rating (tray)  
ETL Electrically Verified to ANSI/TIA/EIA 568C.2 Category 6  
C(ETL)US

**Electrical Parameters:**

Mutual Capacitance: 14 pF/ft nominal  
Capacitance Unbalance: 330 pF/ft maximum  
Velocity of Propagation: 70%

**Applications:**

Supports all category 6 applications including Ethernet 100BASE-TX, 100BASE-VG and 155 ATM. Particularly suited for high bandwidth applications such as 622 ATM, Wideband, Ethernet 1000BASE-T and emerging applications with anticipated data rates to 3.2 Gbps.

**Environmental Characteristics:**

Temperature Rating:  
- Installation: 0°C to 50°C  
- Operation: -10°C to 60°C  
Maximum installing tension: 25 lbf  
Minimum bending radius: 1.0 inch  
Nominal cable weight: 34 lb/1000 feet  
Nominal cable diameter: 0.240 inch

Max. Conductor D.C.R.: 28.6 ohm/1000 feet  
Max. DCR Unbalance: 3%  
Max. Delay Skew: 18 ns/100m  
Characteristic Impedance:  
from 0.772 – 100 MHz 100 ± 15%  
from 100 MHz – 250 MHz 100 ± 22%

## Unshielded Four Twisted Pair Category 6 Horizontal Cable

### Electrical Characteristics:

Frequency	Return Loss	Attenuation	NEXT	PS-NEXT	ELFEXT	PS-ELFEXT
	dB	dB(100m)	dB	dB	dB	dB
MHz	Minimum	Maximum	Minimum	Minimum	Minimum	Minimum
1	20.0	2.0	80.3	78.3	73.8	70.8
4	23.0	3.8	71.3	69.3	61.8	58.8
10	25.0	6.0	65.3	63.3	53.8	50.8
16	25.0	7.6	62.2	60.2	49.7	46.7
20	25.0	8.5	60.8	58.8	47.8	44.8
31.25	23.6	10.7	57.9	55.9	43.9	40.9
62.5	21.5	15.4	53.4	51.4	37.9	34.9
100	20.1	19.8	50.3	48.3	33.8	30.8
200	18.0	29.0	45.8	43.8	27.8	24.8
250	17.3	32.8	44.3	42.3	25.8	22.8

\*Electricals prior to cabling

### 2.0 RG6/U QUAD SHIELD

#### SCOPE

This document establishes the specifications for a quad shield RG 6/U Type 75 ohm coaxial cable used for video display, point-of-sale terminals, Local Area Network controls, and CATV broadcast applications swept to 3000 MHz.

#### MECHANICAL

- Center conductor: 18AWG Solid bare copperweld
- Dielectric: Cellular Polyethylene.
- Dielectric core O.D: 0.180 in., nominal.
- 1st shield: Bonded coaxial shielding tape. (100% coverage)
- 2nd shield: Aluminum braid.
- 3rd shield: coaxial shielding tape
- 4th shield: Aluminum braid
- Jacket material: Polyvinyl Chloride.
- Overall O.D.: 0.282 in., nominal.
- Color: Black or per customer requirement.

**ELECTRICAL**

Capacitance: 16.2 pF/ft, nominal.  
 Characteristic impedance: 75 ohms, nominal.  
 Velocity of propagation: 84%, nominal.  
 Nominal attenuation dB per 100 feet:

1.46 dB @	50 MHz	7.50 dB @	1200 MHz
2.05 dB @	100 MHz	8.04 dB @	1450 MHz
2.83 dB @	200 MHz	8.50 dB @	1800 MHz
6.88 dB @	1000 MHz	12.0 dB @	3000 MHz

**OVERALL CONSTRUCTION**

Two category 6 and one RG6/u are cabled and overall jacketed.

Jacket: PVC  
 Color: Per customer requirement  
 Diameter: 0.598 in., nominal  
 Surface print: Per customer requirement

**PREPARATION FOR DELIVERY**

The cables shall be packaged to preclude the inducement of damage due to handling and transportation, and shall be in accordance with the best commercial practices available. Shipping containers shall be constructed as to eliminate any possible damage to the cables due to shipment.