

Digital Integration Cable

Description:

- Multiple pair Category 5e cable
- Enhanced UTP Category Cable- 200MHz
- 4 Pair 24 AWG unshielded
- Thermoplastic insulation
- Each pair twisted in varied lays
- Thermoplastic jacket

Rating:

- UL Listed NEC Type CMR or MPR as defined in NEC Article 800
- Constructed in accordance with UL Standard 444
- Complies with UL 1666 vertical shaft (riser) Flame Test
- Meets TIA/EIA 568-A Category 5 specifications ETL verified Category 5e
- Verified to Category 5 requirements by independent third party testing laboratory

Applications:

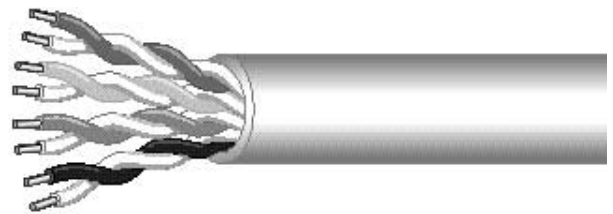
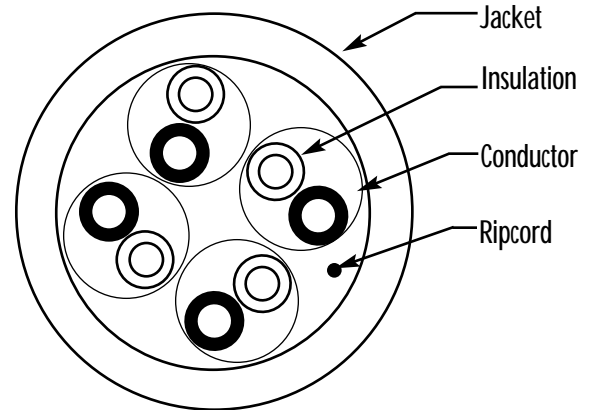
High performance horizontal wiring that meets or exceeds industry standards for:

- Analog and Digital Voice Systems
- Intercom Systems
- Security (CCTV) Systems
- 10 Base-T, 100 Base -T
- 100 VG-ANYLAN
- Home Networking
- TPDD1, CDD1, TP-PMD
- Digital Audio Systems
- ATM 155 Mbps
- 550 MHz Broadband Video and Standards under development such as ATM at 622 Mbps.

Physical Characteristics:

- Cable Weight:** 22lbs/1000ft (33 kg/km)
- Bending Radius:** 1" (25.4 mm) MIN (4xCABLE OD)
- Pulling Tension:** 25lbf (110 N) MAX
- Operating Temp:** -34°C to +60°C (-30°F to + 140°F)
- Storage Temp:** -34°C to +75° C (-30°F to +167°F)
- *Installation Temp:** -20°C to +60°C (-4°F to +140°F)

***The installation temperature refers to the temperature of the cable while being installed or pulled.**



Color Code:

Pair No.	1st Cond.	2nd Cond.
1	White/Blue	Blue
2	White/Orange	Orange
3	White/Green	Green
4	White/Brown	Brown

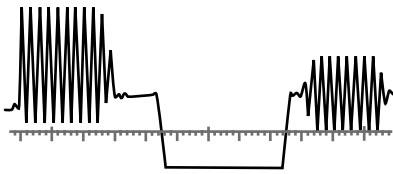
Mechanical Characteristics	
Number of Pairs	4
AWG Size	24
Conductor Type	Solid Bare Copper
Insulation	Thermoplastic
Nom. Jacket Thickness	. (.51 mm)
Nom. O.D.	.194 (4.93 mm)
Jacket Type (color)	Gray-GY, Blue-BL

WEST PENN WIRE / CDT

A DIVISION OF
CABLE DESIGN TECHNOLOGIES

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ELECTRICAL CHARACTERISTICS (REF TABLE 3)

STANDARD: TIA/EIA 568 -A CAT 5e HORIZONTAL CABLE
 CONDUCTOR DCR: 9.38Ω/100m (28.6Ω/Mft) MAX
 DCR UNBALANCE: 5% MAX
 MUTUAL CAPACITANCE: 46pF/m (14pF/ft) NOM
 CAPACITANCE UNBALANCE PAIR/GROUND: 132pF/100m (400pF/Mft) MAX
 CHARACTERISTIC IMPEDANCE: 100Ω ± 15% (1-100 MHz)
 STRUCTURAL RETURN LOSS (SRL): 23 dB MIN (1-20 MHz)
 23-10log₁₀ (S) dB MIN (>20 MHz)
 RETURN LOSS (RL): 20+3log₁₀(f)dB MIN (1-10 MHz)
 25 dB MIN (>10-20MHz)
 25-7log₁₀ (S) dB MIN (>20 MHz)

ATTENUATION: $1.967\sqrt{f} + .023f + \frac{.050}{\sqrt{f}}$ dB/100m MAX
 NEAR END CROSSTALK (NEXT): $68-15\log_{10}\left(\frac{f}{.772}\right)$ dB/100m MIN
 POWER SUM NEAR END CROSSTALK (PS-NEXT): $64-15\log_{10}\left(\frac{f}{.772}\right)$ dB/100m MIN
 EQUAL LEVEL FAR END CROSSTALK (ELFEXT): $66-20\log_{10}\left(\frac{f}{.772}\right)$ dB/100m MIN
 POWER SUM EQUAL LEVEL FAR END CROSSTALK (PS-ELFEXT): $63-20\log_{10}\left(\frac{f}{.772}\right)$ dB/100m MIN
 DELTA DELAY (SKEW): 25ns/100m MAX
 NOMINAL VELOCITY OF PROPAGATION (NVP): 68%
 WHERE f = FREQUENCY IN MHz from .772 to 100 MHz

TABLE 3
 REFERENCE ELECTRICAL CHARACTERISTICS

Frequency (MHz)	Attenuation			NEXT		ACR*	PS-NEXT		PS-ACR*	ELFEXT	PS-ELFEXT	SRL	RL
	avg	max	max	avg	min	min	avg	min	min	min	min	min	min
.064	0.6	0.8	2.4	-	-	-	-	-	-	-	-	-	-
.150	-	-	-	88	78	-	81	74	-	-	-	-	-
.256	0.9	1.1	3.4	-	-	-	-	-	-	-	-	-	-
.512	1.3	1.5	4.6	-	-	-	-	-	-	-	-	-	-
.772	1.6	1.8	5.5	79	68.0	66.2	70	64.0	62.2	-	-	-	-
1.0	1.8	2.0	6.3	77	66.3	64.3	68	62.3	60.3	63.8	60.8	23.0	20.0
4.0	3.8	4.1	13	68	57.3	53.2	57	53.3	49.2	51.7	48.7	23.0	23.0
8.0	5.4	5.8	18	64	52.8	47.0	54	48.8	43.0	45.7	42.7	23.0	24.5
10.0	6.0	6.5	20	62	51.3	44.8	52	47.3	40.8	43.8	40.8	23.0	25.0
16.0	7.6	8.2	25	60	48.3	40.1	50	44.3	36.1	39.7	36.7	23.0	25.0
20.0	8.6	9.3	28	58	46.8	37.5	48	42.8	33.5	37.7	34.7	23.0	25.0
25.0	9.7	10.4	32	57	45.3	34.9	47	41.3	30.9	35.8	32.8	22.0	24.3
31.25	10.9	11.7	36	56	43.9	32.2	46	39.9	28.2	33.9	30.9	21.1	23.6
62.5	15.8	17.0	52	52	39.4	22.4	42	35.4	18.4	27.8	24.8	18.1	21.5
100.0	20.5	22.0	67	48	36.3	14.3	38	32.3	10.3	23.8	20.8	16.0	20.1
155.0	26.4	28.1	86	45	33.5	5.4	35	29.1	1.0	19.9	16.9	14.1	18.8
200.0	31.1	32.4	99	43	31.8	-	33	27.8	-	17.7	14.7	13.0	18.0

*ACR-Minimum Attenuation to Crosstalk Ratio

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