

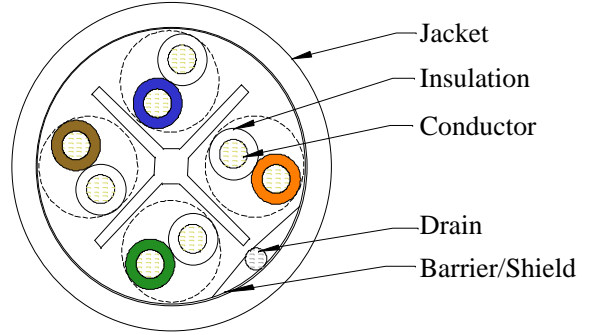
**MASTER SPECIFICATION**  
**XGO™ F/UTP CABLE**  
**4 PAIR #23 AWG CATEGORY 6A PLENUM**

Design Number:  
**HT55715**

**DESCRIPTION**

SCREENED TWISTED PAIR (F/UTP) XGO(TM) CABLE FOR USE IN HORIZONTAL CABLING SYSTEMS PER ANSI/TIA-568-C AND ISO/IEC 11801:2002 CLASS EA. THE CABLE IS ETL COMPONENT COMPLIANT TO ANSI/TIA-568-C.2 CATEGORY 6A ELECTRICAL CHARACTERISTICS. THE CABLE CONSISTS OF #23 AWG SOLID BARE COPPER INSULATED CONDUCTORS, ASSEMBLED INTO FOUR TIGHTLY TWISTED PAIRS, WITH A FLEXWEB® CORE SEPARATOR, WITH AN OVERALL FOIL SHIELD & DRAIN, UNDER AN OVERALL JACKET. PRINT INCLUDES DESCENDING FOOTAGE MARKERS FROM 1000 TO 0. SEE BELDEN.COM/P FOR ANY/ALL APPLICABLE PATENT DETAILS.

THE CABLE IS PLENUM RATED FOR USE IN AIR HANDLING DUCTS AND SPACES IN ACCORDANCE WITH ARTICLE 800 OF THE NATIONAL ELECTRICAL CODE (NEC). THE CABLE IS ETL (USA) & cETL (CANADA) LISTED FOR THIS APPLICATION BY PASSING NFPA 262 (FT6 OR PREVIOUSLY UL 910 STEINER TUNNEL) TEST.



**SUPPORTED APPLICATIONS**

IEEE 802.3 10BASE-T (ETHERNET), 100BASE-T (FAST ETHERNET), AND 1000BASE-T (GIGABIT ETHERNET), ANSI.X3.263 FDDI TP-PMD, IEEE 802.5 4 AND 16 Mbps TOKEN RING, 550 MHZ BROADBAND VIDEO AND ATM UP TO 4.8 Gbps.

**CONSTRUCTION**

- PRIMARIES:** CONDUCTOR: 23 AWG (.6 mm) SOLID BARE COPPER  
INSULATION: FEP
- PAIR ASSEMBLY:** 2 PRIMARIES TWISTED IN VARIED LAYS
- COLOR CODE:** SEE TABLE 1
- CABLE ASSEMBLY:** 4 PAIRS CABLED TOGETHER WITH A FLEXWEB CORE SEPARATOR
- BARRIER:** OVERALL POLYESTER TAPE, 25% OVERLAP
- DRAIN:** #26 AWG SOLID TINNED COPPER
- SCREEN (SHIELD):** OVERALL ALUMINUM/POLYESTER TAPE, ALUM SIDE FACING IN, 25% OVERLAP, 100% COVERAGE, LIGHTLY BONDED TO JACKET
- JACKET:** NO LEAD PLENUM RATED THERMOPLASTIC  
JACKET COLOR: SEE TABLE 2  
NOMINAL CABLE OD: .310" (7.87 mm)
- LISTING:** C(UL)US OR C(ETL)US TYPE CMP  
UL OR ETL VERIFIED CAT 6A

**TABLE 1**

PAIR NUMBER	PAIR COLOR CODE	
1	WHITE-BLUE	BLUE
2	WHITE-ORANGE	ORANGE
3	WHITE-GREEN	GREEN
4	WHITE-BROWN	BROWN

**TABLE 2**

MOHAWK PART NUMBER	MOHAWK DESIGN NUMBER	JACKET COLOR
M58782	HT55721	WHITE
M58781	HT55720	BLUE
M58888	HT57006	PINK
M58886	HT57004	YELLOW
M58887	HT57005	GRAY
M58889	HT57007	GREEN
M58890	HT57008	RED
M58891	HT57009	ORANGE
M58892	HT57010	BLACK
M58893	HT57011	VIOLET

**PHYSICAL CHARACTERISTICS**

- CABLE WEIGHT w/reel:** 48 lbs/1000ft (71 kg/km)
  - BENDING RADIUS:** 1.25" (32 mm) MIN
  - PULLING TENSION:** 25 lbf (110 N) MAX
  - OPERATING TEMP.:** -20°C to +60°C (-4°F to +140°F)
  - STORAGE TEMP.:** -20°C to +75°C (-4°F to +167°F)
  - \*INSTALLATION TEMP.:** 0°C to +60°C (+32°F to +140°F)
- \* THE INSTALLATION TEMPERATURE REFERS TO THE TEMPERATURE OF THE CABLE WHILE BEING INSTALLED OR PULLED. DO NOT INSTALL BELOW 0°C (+32°F).



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Rev	Description	Date	Init.
K	UPDATE DIA, WGT, ELECS & PATENT INFO	04/25/14	JS
L	DEL RIP; ADD TAPE BOND; UPD WT & PAT INFO	02/05/16	JS
M	UPDATE FOOTER	02/22/17	JS
N	UPDATE JACKET DIA, CABLE WGT, BEND RADIUS	11/09/17	JS
Date: 02/20/07		Page 1 of 2	
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**ELECTRICAL CHARACTERISTICS** (REF TABLE 3)  
**STANDARDS:** EXCEEDS ANSI/TIA-568-C.2 CAT 6A,  
 ICEA S-90-661-1997 CAT 6 &  
 ISO/IEC 11801 ed 2.0 AMEND 1 CLASS EA  
 HORIZONTAL CABLE

**CONDUCTOR DCR:** 9.38 Ω/100m (28.6 Ω/Mft) MAX  
**DCR UNBALANCE:** 3% MAX

**MUTUAL CAPACITANCE:** 46 pF/m NOM

**CAPACITANCE UNBALANCE PAIR/GROUND:** 90 pF/100m MAX

**CHARACTERISTIC IMPEDANCE:** 100 Ω ± 10% (10-550 MHz)

**INPUT IMPEDANCE:** 100 Ω ± 15% (1-100 MHz)  
 100 Ω ± 18% (>100-250 MHz)  
 100 Ω ± 32% (>250 MHz)

**RETURN LOSS (RL):** 20 + 6 log<sub>10</sub>(f) dB MIN (1-10 MHz)  
 26 dB MIN (>10-20 MHz)  
 26 - 7 log<sub>10</sub>(f/20) dB MIN (>20 MHz)

**PROPAGATION DELAY:** 534+36 / √f ns/100m MAX

**PROPAGATION DELAY SKEW:** 45 ns/100m MAX

**NOMINAL VELOCITY OF PROPAGATION (NVP):** 70%

**INSERTION LOSS**

**(ATTENUATION):** 1.82√f + .00091f + .25/√f dB/100m MAX

**NEAR END CROSSTALK (NEXT):** 44.3 - 15 log<sub>10</sub>(f/100) dB/100m MIN

**POWER SUM NEAR END CROSSTALK (PS NEXT):** 42.3 - 15 log<sub>10</sub>(f/100) dB/100m MIN

**ATTENUATION TO CROSSTALK ATTENUATION FAR END (ACRF):** 27.8 - 20 log<sub>10</sub>(f/100) dB/100m MIN

**POWER SUM ATTENUATION TO CROSSTALK RATIO FAR END (PS ACRF):** 24.8 - 20 log<sub>10</sub>(f/100) dB/100m MIN

**TCL:** 30 - 10 log<sub>10</sub>(f/100)

**ELTCL:** 35 - 20 log<sub>10</sub>(f) 1 ≤ f ≤ 30 MHz

**COUPLING ATTENUATION:** 55 - 20 log<sub>10</sub>(f/100) 30 ≤ f ≤ 500 MHz

**POWER SUM ALIEN NEAR END CROSSTALK (PS ANEXT):** 62.5 - 15 log<sub>10</sub>(f/100) dB/100m MIN

**POWER SUM ALIEN ATTENUATION TO CROSSTALK RATIO FAR END (PS AACRF):** 38.2 - 20 log<sub>10</sub>(f/100) dB/100m MIN  
 77 dB MAX

NOTE: Attenuation To Crosstalk Ratio Far End (ACRF) was previously referred to as Equal Level Far End Crosstalk (ELFEXT).

WHERE f = Frequency In MHz from 1 to 500 MHz.

**TABLE 3**  
**REFERENCE ELECTRICAL CHARACTERISTICS**

FREQ (MHz)	INSERTION LOSS (dB/100m)	NEXT (dB/100m)	PS NEXT (dB/100m)	ACRF (dB/100m)	PS ACRF (dB/100m)	RETURN LOSS (dB)	PROP. DELAY (ns/100m)	ALIEN CROSSTALK	
								PS ANEXT (dB/100m)	PS AACRF (dB/100m)
1.0	max	min	min	min	min	min	max	min	min
2.1	2.1	74.3	72.3	67.8	64.8	20.0	570.0	67.0	67.0
4.0	3.8	65.3	63.3	55.8	52.8	23.0	552.0	67.0	66.2
8.0	5.3	60.8	58.8	49.7	46.7	24.5	546.7	67.0	60.1
10.0	5.9	59.3	57.3	47.8	44.8	25.0	545.4	67.0	58.2
16.0	7.5	56.2	54.2	43.7	40.7	25.0	543.0	67.0	54.1
20.0	8.4	54.8	52.8	41.8	38.8	25.0	542.0	67.0	52.2
25.0	9.4	53.3	51.3	39.8	36.8	24.3	541.2	67.0	50.2
31.25	10.5	51.9	49.9	37.9	34.9	23.6	540.4	67.0	48.3
62.5	15.0	47.4	45.4	31.9	28.9	21.5	538.6	65.6	42.3
100.0	19.1	44.3	42.3	27.8	24.8	20.1	537.6	62.5	38.2
155.0	24.1	41.4	39.4	24.0	21.0	18.8	536.9	59.6	34.4
200.0	27.6	39.8	37.8	21.8	18.8	18.0	536.5	58.0	32.2
250.0	31.1	38.3	36.3	19.8	16.8	17.3	536.3	56.5	30.2
300.0	34.3	37.1	35.1	18.3	15.3	16.8	536.1	55.3	28.7
350.0	37.2	36.1	34.1	16.9	13.9	16.3	535.9	54.3	27.3
400.0	40.1	35.3	33.3	15.8	12.8	15.9	535.8	53.5	26.2
500.0	45.3	33.8	31.8	13.8	10.8	15.2	535.6	52.0	24.2

SWEEP TESTED TO 500 MHz



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