

Category 6e UTP AdvanceNet®

Tested to 650 MHz

AdvanceNet is unshielded twisted pair cable tested to 650 MHz and ETL verified to TIA/EIA-568-B.2-1 Category 6.

With the mini FlexWeb® core separator, the AdvanceNet cable isolates the pairs throughout the length of the cable, while providing a smaller installer-friendly cable.

- **25 Year Warranty***
- **28 dB Minimum ACR @ 100 MHz** – Proven support for Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab, ATM up to 155 Mbps, IEEE 802.3af Power Over Ethernet for VoIP, 100 Mbps Fast Ethernet / 100BASE-T / IEEE 802.3, ANSI.X3.263 FDDI TP-PMD, Ethernet / 10BASE-T / IEEE 802.3, 4 & 16 Mbps Token Ring / IEEE 802.5, T1/E1, xDSL, ISDN, 550 MHz Broadband Video and standards under development such as ATM at 622 Mbps, 1.2 and 2.4 Gbps.

- **13 dB Minimum** – Improvement in Near End Crosstalk vs. Category 5e NEXT.
- **.25 ns/meter Maximum Skew** – Tightly controlled propagation delay.
- **Enhanced Performance Parameters** – All electrical characteristics proven to exceed TIA/EIA-568-B.2-1 and ISO/IEC 11801 Category 6 requirements: NEXT and ELFEXT (Pair-to-Pair and Power Sum), Insertion Loss, Return Loss, and Delay Skew.
- This cable and/or its manufacture are covered by US Patent Nos. 6,596,944, 6,074,503 and 5,424,491.

* Warranty available with MAC and System MATE® programs.

Electrical Characteristics

STANDARDS:

EXCEEDS TIA/EIA-568-B.2-1 CAT 6, ISO/IEC 11801:2002 CAT 6 & IEC 61156-5 CAT 6 HORIZONTAL CABLE

CONDUCTOR DCR:

7.8 Ω /100m (23.8 Ω /Mft) MAX

DCR UNBALANCE:

3% MAX

MUTUAL CAPACITANCE:

46 pF/m (14 pF/ft) NOM

CAPACITANCE UNBALANCE

PAIR/GROUND:

66 pF/100m (200 pF/Mft) MAX

CHARACTERISTIC IMPEDANCE:

100 Ω \pm 15% (1-350 MHz)

INPUT IMPEDANCE:

100 Ω \pm 15% (1-100 MHz)

100 Ω \pm 18% (>100-200 MHz)

100 Ω \pm 22% (>200-350 MHz)

PROPAGATION DELAY:

534 + 36/ \sqrt{f} ns/100m MAX

DELTA DELAY (SKEW):

25 ns/100m MAX

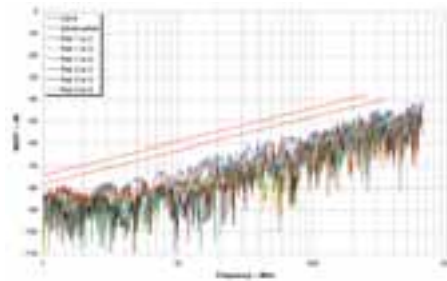
NOMINAL VELOCITY

OF PROPAGATION (NVP):

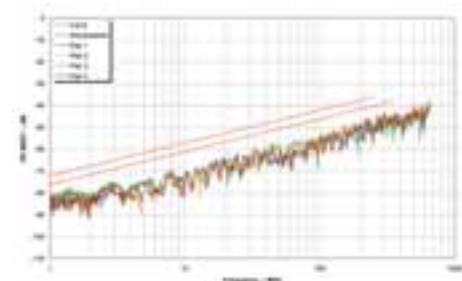
PLENUM 72%

NON-PLENUM 68%

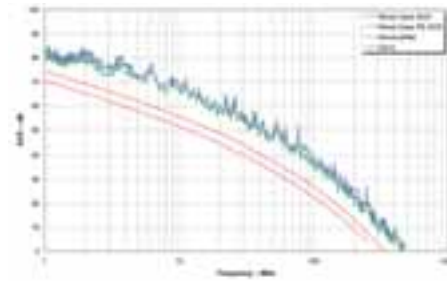
Near End Crosstalk (NEXT)



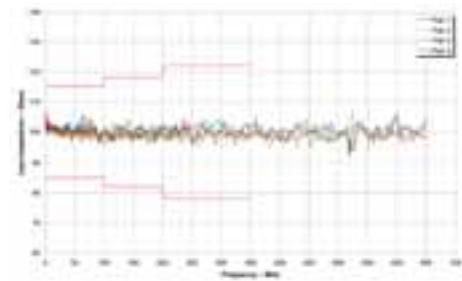
Power Sum NEXT (PS NEXT)



Worst Case ACR and Power Sum ACR



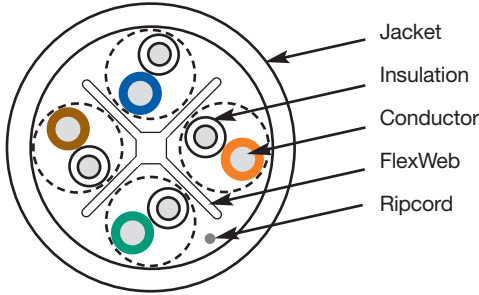
Input Impedance



Safety listed to NEC (NFPA 70)



Verified by ETL to TIA/EIA-568-B.2-1



Jacket Colors for 4-Pair Non-Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
WHITE	M56889	GREEN	M57206
BLUE	M57202	RED	M57207
PINK	M57203	ORANGE	M57208
YELLOW	M57204	BLACK	M57209
GRAY	M57205	VIOLET	M57210

Jacket Colors for 4-Pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
WHITE	M56905	GREEN	M57197
BLUE	M57193	RED	M57198
PINK	M57194	ORANGE	M57199
YELLOW	M57195	BLACK	M57200
GRAY	M57196	VIOLET	M57201

Custom colors available; please consult the factory.

FREQ (MHz)	INSERTION LOSS (dB/100m)		NEXT (dB/100m)		ACR (dB/100m)	PS-NEXT (dB/100m)		PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	RL (dB)
	avg	max	avg	min	min	avg	min	min	min	min	min
.772	1.6	1.8	90	80.0	78.2	83	78.0	76.2	-	-	-
1.0	1.8	2.0	88	78.3	76.3	81	76.3	74.3	70.0	68.0	20.0
4.0	3.5	3.8	79	69.3	65.5	72	67.3	63.5	58.0	56.0	24.2
8.0	4.9	5.3	75	64.8	59.5	68	62.8	57.5	51.9	49.9	26.3
10.0	5.6	5.9	73	63.3	57.4	66	61.3	55.4	50.0	48.0	27.0
16.0	7.1	7.5	70	60.2	52.7	63	58.2	50.7	45.9	43.9	27.0
20.0	7.9	8.4	69	58.8	50.4	62	56.8	48.4	44.0	42.0	27.0
25.0	8.8	9.4	67	57.3	47.9	60	55.3	45.9	42.0	40.0	26.5
31.25	10.0	10.6	66	55.9	45.3	59	53.9	43.3	40.1	38.1	25.9
62.5	14.3	15.3	61	51.4	36.1	54	49.4	34.1	34.1	32.1	24.2
100.0	18.4	19.7	58	48.3	28.6	51	46.3	26.6	30.0	28.0	23.1
155.0	23.4	25.0	55	45.4	20.4	48	43.4	18.4	26.2	24.2	22.0
200.0	27.0	28.8	54	43.8	15.0	47	41.8	13.0	24.0	22.0	21.4
250.0	30.5	32.6	52	42.3	9.7	45	40.3	7.7	22.0	20.0	20.9
300.0	33.9	36.2	51	41.1	4.9	44	39.1	2.9	20.5	18.5	20.4
350.0	37.0	39.5	50	40.1	0.6	43	38.1	-	19.1	17.1	20.1
400.0	40.0	42.7	49	39.3	-	42	37.3	-	18.0	16.0	19.7
500.0	45.5	48.6	48	37.8	-	41	35.8	-	16.0	14.0	19.2
550.0	48.2	51.5	47	37.2	-	40	35.2	-	-	-	19.0
600.0	50.7	54.2	47	36.6	-	40	34.6	-	-	-	18.8
650.0	53.2	56.8	46	36.1	-	39	34.1	-	-	-	18.6

Values above 350 MHz are for engineering information only.

Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter inch mm	Weight lbs/M' kg/km	Listings
M56889 Non-Plenum	4 PAIR 23 AWG UTP	Thermoplastic	White PVC .225 5.72	29 43	C(ETL)US CMR
M56905 Plenum	4 PAIR 23 AWG UTP	Dual Insulation** FEP on all 4 pairs	White ThermoPlen®* .228 5.79	32 48	C(ETL)US CMP
M58414 Plenum Plus®	4 PAIR 23 AWG UTP	FEP	White Smokeguard®† FP Rated for 125° C .200 5.08	31 46	UL CMP Limited Combustible c(UL) CMP

*Plenum rated Thermoplastic. **US Patent No. 5,563,377. †Smokeguard is a registered trademark of AlphaGary. For pair colors see chart A on page 64.

Packaging Options

Put-Up	Package	Number Per Pallet	Pallet Size
1000 Ft.	12" Reels	48	42" x 42"
1000 Ft.	Boxes (15½"W x 11¼"D x 14¼"H)	33	45" x 48"
1000 Ft.	Reel in a Box (12¾"W x 12¾"D x 12⅞"H)	27	42" x 42"



Above part numbers are for reels only. Add "B" to end of Mohawk # for boxes, or "RB" for Reel-in-a-box packaging.



Bulk put-ups available upon request; please consult the factory.