



NEX1 Technologies Co., Ltd

SPECIFICATION FOR APPROVAL

DOCUMENT? TUP2304X03

STYLE : 75 300V
COMMUNICATION CABLE

SIZE: UTP 23AWG X4P (SOLID)
NEX1 1000X CAT 6E CMP

RECOGNIZED: UL, CSA, ETL

Manufactured by:

NEX1 Technologies Co., Ltd.
No.6, Lane 252, Min-Tsu E. Road, Taipei 104, Taiwan
www.nex1.com.tw



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SPECIFICATIONS

STYLE	75 300V COMMUNICATION CABLE	DOCUMENT NO : TUP2304X03
SIZE	UTP 23AWG×4P	ESTABLISHED DATE : 2007/3/16
STANDARD : UL444,910 & EN50288-6-1 & ISO/IEC 11801 & TIA/EIA-568-B.2.1 CAT 6		
APPLICATION : ULTRA HIGH PERFORMANCE LAN CABLE ARE SUITABLE FOR PERFECT AUDIO DATA AND VIDEO OF TRANSFER FOR HORIZONTAL NETWORK		
CONSTRUCTION :		
CONDUCTOR	SIZE	23AWG × 4P
	CONSTRUCTION	SOLID BARE COPPER
	COND. DIAM.	1/0.600±0.008 mm
INSULATION	AVG. THICK.	0.210 mm
	MIN. THICK.	0.200 mm
	DIAMETER	1.02 ± 0.020 mm
	MATERIAL	FEP
	COLOR CODES	1.BLUE × WHITE/BLUE STRIPE 2.ORANGE × WHITE/ORANGE STRIPE 3.GREEN × WHITE/GREEN STRIPE 4.BROWN × WHITE/BROWN STRIPE
SHIELDED	PAIR STRANDED	2 CORES STRANDED
	FILLER(SPLINE)	FRPE SEPARATOR
	ASSEMBLY STRANDED	4 PAIR STRANDED
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JACKETED	AVG. THICK.	0.40 mm
	MIN. THICK.	0.36 mm
	DIAMETER	6.10 ± 0.20 mm
	MATERIAL	LOW SMOKING PVC
	COLOR	GRAY OR OTHER COLOR

AK001/210×297/1.0

EDITION : 1.0

REVISED DATE: March 16, 2007

MAKER : *C. Y. Chen* CONFIRM : *S. N. Wong* APPROVAL : *W. J. Wang*



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ELECTRICAL & PHYSICAL PROPERTIES :			
ITEM		23AWG × 4P	
RATING TEMP VOLTAGE		75 300V	
CONDUCTOR RESISTANCE		93.8 OHM/Km/20 MAX.	
MUTUAL CAPACITANCE		56 pF/M MAX.	
DIELECTRIC STRENGTH		AC 1.5 KV/2 SEC.	
SPARK TEST		2.5 KV	
INSULATION	UNAGED	TENSILE STRENGTH	2500 PSI MIN. (1.76 Kg/m m ²)
		ELONGATION	200% MIN.
	AGED	TENSILE STRENGTH	UNAGED MIN. 75%(232 ×168HRS)
		ELONGATION	UNAGED MIN. 75%(232 ×168HRS)
JACKETED	UNAGED	TENSILE STRENGTH	2000 PSI MIN.(1.41 Kg/m m ²)
		ELONGATION	100% MIN.
	AGED	TENSILE STRENGTH	UNAGED MIN. 85%(100 ×240HRS)
		ELONGATION	UNAGED MIN. 50%(100 ×240HRS)
INSULATION SHRINKBACK		150m/m, 121 ± 1HR 9.5m/m	
COLD BEND TEST		-20 ±4HRS NO.CRACK	
FLAME RETARDANT TEST		CMP	
AC LEAKAGE CURRENT THROUGH OVERALL JACKET		AC 1500V 10 mA	
DC RESISTANCE UNBALANCE		5% MAX.	
PAIR-TO-GROUND CAPACITANCE UNBALANCE		3300 pF/Km MAX.	
CHARACTERISTIC IMPEDANCE		1 ~ 550 MHz 100±15 OHMS	
INPUT IMPEDANCE		1 ~ 250 MHz 100±15 OHMS	
VELOCITY OF PROPAGATION		62.2% MIN. AT 550 MHz .	
PROPAGATION DELAY		550 MHz 536nS/100m MAX.	
DELAY SKEW		1 ~ 550 MHz 25nS/100m MAX.	
MARKING :			
NEX1 1000X CAT 6E GIGASYSTEM TESTED TO 550MHz E142890 (UL) CMP 75 UTP 4PR 23AWG CSA CMP(FT6) LL43774 ETL & 3P VERIFIED TOTIA/EIA-568-B.2-1 ISO/IEC 11801 XXXXXXFT			



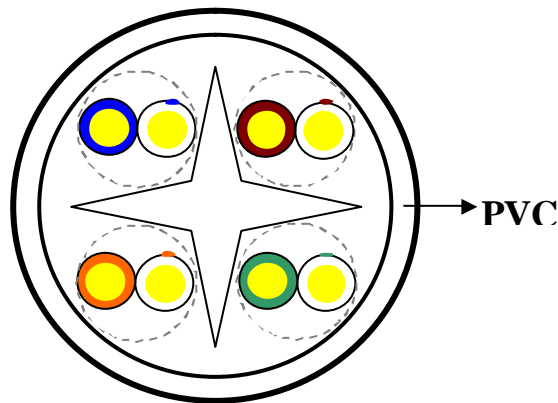
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SPECIFICATIONS

Electrical performance

ITEM(d B) Frequency (MHz)	ATT MAX. (dB/100m)	NEXT MIN. (dB)	ACR MIN. (dB)	PS. NEXT MIN. (dB)	PS. ACR MIN. (dB)	ELFEXT MIN. (dB)/100m)	PS. ELFEXT MIN. (dB/100m)	R.L. MIN. (d B)
1	2.0	76.3	74.3	74.3	72.3	67.8	64.8	20.0
4	3.8	67.3	63.5	65.3	61.5	55.7	52.7	23.0
8	5.3	62.8	57.5	60.8	55.5	49.7	46.7	24.5
10	6.0	61.3	55.3	59.3	53.3	47.8	44.8	25.0
16	7.6	58.3	50.7	56.3	48.7	43.7	40.7	25.0
20	8.5	56.8	48.3	54.8	46.3	41.8	38.8	25.0
31.25	10.7	53.9	43.2	51.9	41.2	37.9	34.9	25.0
62.5	15.4	49.4	34.0	47.4	32.0	31.9	28.9	21.5
100	19.8	46.3	26.5	44.3	24.5	27.8	24.8	20.1
155	25.1	43.5	18.4	41.5	16.4	24.0	21.0	18.8
200	29.0	41.8	12.8	39.8	10.8	21.8	18.8	18.0
250	32.8	40.3	7.5	38.3	5.5	19.8	16.8	17.3
300	36.4	39.2	2.8	37.2	0.8	18.3	15.3	16.8
400	43.0	37.3	NA	35.3	NA	15.8	12.8	15.9
500	48.9	35.8	NA	33.8	NA	13.8	10.8	15.2
550	51.8	35.2	NA	33.2	NA	13.0	10.0	14.9



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MAKER :

CONFIRM :

APPROVAL :

SPECIFICATION

Electrical performance(100METER LOOP)

ITEM(d B) Frequency (MHz)	ATT MAX. (dB/100m)	NEXT MIN. (dB)	ACR MIN. (dB)	PS. NEXT MIN. (dB)	PS. ACR MIN. (dB)	ELFEXT MIN. (dB)/100 m)	PS. ELFEXT MIN. (dB/100m)	R.L. MIN. (d B)
1	2.0	79.3	77.3	77.3	75.3	69.8	66.8	20.0
4	3.8	70.3	66.5	68.3	64.5	57.7	54.7	23.0
8	5.3	65.8	60.5	63.8	58.5	51.7	48.7	24.5
10	5.9	64.3	58.4	62.3	56.4	49.8	46.8	25.0
16	7.5	61.3	53.8	59.3	51.8	45.7	42.7	25.0
20	8.4	59.8	51.4	57.8	49.4	43.8	40.8	25.0
31.25	10.5	56.9	46.4	54.9	44.4	39.9	36.9	25.0
62.5	15.1	52.4	37.2	50.4	35.2	33.9	30.8	21.5
100	19.4	49.3	29.9	47.3	27.9	29.8	26.8	20.1
155	24.6	46.5	21.9	44.5	19.9	26.0	23.0	18.8
200	28.3	44.8	16.5	42.8	14.5	23.8	20.8	18.0
250	32.0	43.3	11.4	41.3	9.4	21.8	18.8	17.3
300	35.4	42.2	6.8	40.2	4.8	20.3	17.3	16.8
400	41.6	40.3	0	38.3	0	17.8	14.8	15.9
500	47.3	38.8	NA	36.8	NA	15.8	12.8	15.2
550	49.9	38.2	NA	36.2	NA	15.0	12.0	14.9

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