



NEX1 Technologies Co., Ltd

## SPECIFICATION FOR APPROVAL

DOCUMENT : TSM2404X07

STYLE : 75°C 300V  
COMMUNICATION CABLE

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SIZE: FTP 24AWG X4P (SOLID)  
1000X CAT 6 CM

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RECOGNIZED: UL、CSA、3P

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STYLE	75°C 300V COMMUNICATION CABLE	DOCUMENT NO : TSM2404X07
SIZE	FTP 24AWG×4P	ESTABLISHED DATE : Apr/10/2007
STANDARD : UL444 & ISO/IEC 11801 & TIA/EIA-568-B.2-1CAT 6; 2002/95/EC(RoHS)		
APPLICATION : LOCAL AREA NETWORK CABLE ARE SUITABLE FOR PERFECT AUDIO DATA AND VIDEO OF TRANSFER FOR HORIZONTAL NETWORK.		
CONSTRUCTION :		
CONDUCTOR	SIZE	24AWG × 4P
	CONSTRUCTION	SOLID BARE COPPER
	COND. DIAM.	1/0.540±0.030 mm
INSULATION	AVG. THICK.	0.250 mm
	MIN. THICK.	0.230 mm
	DIAMETER	1.030 ± 0.020 mm
	MATERIAL	HDPE
	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(SLOT)	PE ISOLATOR SEPARATOR
	ASSEMBLY STRANDED	4 PAIR STRANDED
	MYLAR TAPE	25 × 0.025±0.002 mm
	DRAIN WIRE	0.500±0.008 mm (TINNED COPPER)
	AL-MYLAR TAPE	25 × 0.065±0.002 mm
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JACKETED	AVG. THICK.	0.50 mm
	MIN. THICK.	0.45 mm
	DIAMETER	7.20 ± 0.30 mm
	MATERIAL	PVC
	COLOR	GRAY OR OTHER COLOR

AK001/210×297/1.0

EDITION : 1.0

MAKER : *C. Y. Hsieh*

CONFIRM : *C. Y. Chen*

REVISED DATE :

APPROVAL : *W. J. Wang*



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ELECTRICAL & PHYSICAL PROPERTIES :			
ITEM		24AWG × 4P	
RATING TEMP VOLTAGE		75°C 300V	
CONDUCTOR RESISTANCE		93.8 OHM/Km/20°C MAX.	
MUTUAL CAPACITANCE		56 pF/M MAX.	
DIELECTRIC STRENGTH		AC 1.5 KV/2 SEC.	
SPARK TEST		2.5 KV	
INSULATION	UNAGED	TENSILE STRENGTH	2400 PSI MIN.(1.69 Kg/m m <sup>2</sup> )
		ELONGATION	300% MIN.
	AGED	TENSILE STRENGTH	UNAGED MIN. 75%(100°C×48HRS)
		ELONGATION	UNAGED MIN. 75%(100°C×48HRS)
JACKETED	UNAGED	TENSILE STRENGTH	2000 PSI MIN.(1.41 Kg/m m <sup>2</sup> )
		ELONGATION	100% MIN.
	AGED	TENSILE STRENGTH	UNAGED MIN. 85%(100°C×240HRS)
		ELONGATION	UNAGED MIN. 50%(100°C×240HRS)
INSULATION SHRINKBACK		150m/m, 121°C±1°C×1HR ≤9.5m/m	
COLD BEND TEST		-20°C×4HRS NO.CRACK	
FLAME RETARDANT TEST		CM	
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 ~ 250 MHz 100±15 OHMS	
STRUCTURAL RETURN LOSS		250 MHz 12dB MIN.	
PROPAGATION DELAY		250MHz 534nS/100m MAX.	
DELAY SKEW		1 ~ 250 MHz 40Ns/100m MAX.	
MARKING :			
NEX1 CAT 6 GIGASYSTEM (UL) E142890 CM 75°C FTP 4PR 24AWG CSA CMG LL43774 3P VERIFIED TO TIA/EIA-568-B.2-1 ISO/IEC 11801 prEN50288-5-1 XXXXXM			

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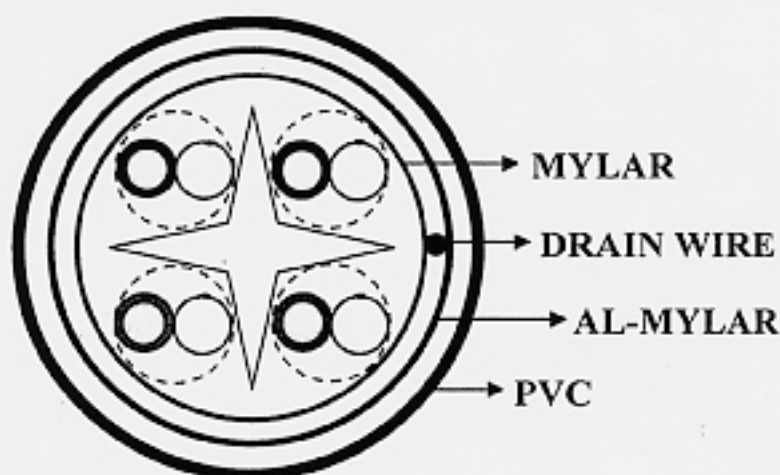
# NEX1

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### Electrical Performance

ITEM(d B) Frequency (MHz)	ATT MAX. (dB/100m)	NEXT MIN. (d B)	ACR MIN. (dB)	PS. NEXT MIN. (dB)	PS. ACR MIN. (dB)	ELFEXT MIN. (dB)/100m)	PS. ELFEXT MIN. (dB/100m)	R.I. MIN. (dB)
1	2.0	74.3	72.3	72.3	70.3	67.8	64.8	20.0
4	3.8	65.3	61.5	63.3	59.5	55.7	52.7	23.0
8	5.3	60.8	55.3	58.8	53.3	49.7	46.7	24.5
10	6.0	59.3	53.3	57.3	51.3	47.8	44.8	25.0
16	7.6	56.3	48.7	54.3	46.7	43.7	40.7	25.0
20	8.5	54.8	46.3	52.8	44.3	41.7	38.7	25.0
25	9.6	53.3	43.7	51.3	41.7	39.8	36.8	24.5
31.25	10.7	51.9	41.2	49.9	39.2	37.9	34.9	23.5
62.5	15.4	47.4	32.0	45.1	30.0	31.8	28.8	21.5
100	19.8	44.3	24.5	42.3	22.5	27.8	24.8	20.1
155	25.1	41.5	16.4	39.5	14.4	23.9	20.9	18.8
200	29.0	39.8	10.8	37.8	8.8	21.7	18.7	18.0
250	32.8	38.3	5.5	36.3	3.5	19.8	16.8	17.3



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