



NEX1 Technologies Co., Ltd

SPECIFICATIONS FOR APPROVAL

DOCUMENT? TPM2404X03

STYLE: 75 300V
COMMUNICATION CABLE

SIZE: UTP 24AWG X4P
(STRANDED)
CAT 6 CM

APPROVED: 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 : TPM2404X03
SIZE	UTP 24AWG×4P	ESTABLISHED DATE : 2007/3/16
STANDARD : UL444 & TIA/EIA-568-B.2-1 D7 & prEN50288-6-2 & ISO/IEC 11801 CAT 6 APPLICATION : ULTRA HIGH PERFORMANCE LAN CABLE ARE SUITABLE FOR PERFECT AUDIO DATA AND VIDEO OF TRANSFER FOR WORK AREA NETWORK CONSTRUCTION :		
CONDUCTOR	SIZE	24AWG × 4P
	CONSTRUCTION	BARE STRANDED COPPER
	COND. DIAM.	7.0/0.205±0.008 mm.
INSULATION	AVG. THICK.	0.190 mm.
	MIN. THICK.	0.180 mm.
	DIAMETER	0.990 ± 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)	-----
	ASSEMBLY STRANDED	4 PAIR STRANDED
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JACKETED	AVG. THICK.	0.55 mm.
	MIN. THICK.	0.51 mm.
	DIAMETER	5.40 ± 0.20 mm.
	MATERIAL	PVC
	COLOR	GRAY OR OTHER COLOR

AK001/210×297/1.0

EDITION : 1.0

MAKER: NEX1 Technologies CONFIRM:

REVISED DATE :

APPROVAL :



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ELECTRICAL & PHYSICAL PROPERTIES :			
ITEM		24AWG × 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/MIN. 2SEC MIN.	
SPARK TEST		2.5 KV	
INSULATION	UNAGED	TENSILE STRENGTH	2400 PSI MIN. (0.84 Kg/m m ²)
		ELONGATION	300% MIN.
	AGED	TENSILE STRENGTH	UNAGED MIN. 75%(100 ×48HRS)
		ELONGATION	UNAGED MIN. 75%(100 ×48HRS)
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 ± HRS NO.CRACK	
FLAME RETARDANT TEST		CM	
AC LEAKAGE CURRENT THROUGHT 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 12.0dB MIN.	
PROPAGATION DELAY		250 MHz 536nS/100m MAX.	
DELAY SKEW		1 ~ 250 MHz 40nS/100m MAX.	
MARKING :			
NEX1 PATCH CABLE CAT 6 GIGASYSTEM E142890 (UL) CM 75 4PR 24AWG CSA CMG LL43774 ETL VERIFIED TO TIA/EIA-568-B.2-1 CAT6 XXXXXXFT			

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*

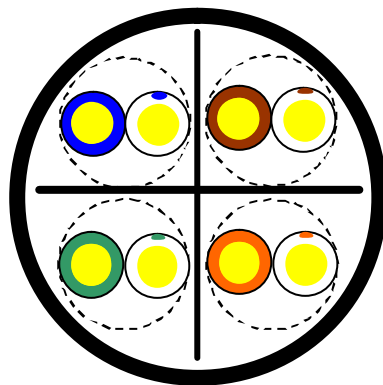


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Electrical Performance

ITEM (dB) Frequency (MHz)	ATT MAX. (dB/100m)	NEX T MIN. (dB)	ACR MIN. (dB)	PS. NEX T MIN. (dB)	PS. ACR MIN. (dB)	ELFEXT MIN. (dB)/100 m)	PS. ELFEXT MIN. (dB/100m)	R.L. MIN. (dB)
1	2.4	74.3	71.9	72.3	69.9	67.8	64.8	20.0
4	4.6	65.3	60.7	63.3	58.7	55.7	52.7	23.0
8	6.4	60.8	54.4	58.8	52.4	49.7	46.7	24.5
10	7.2	59.3	52.1	57.3	50.1	47.8	44.8	25.0
16	9.1	56.3	47.2	54.3	45.2	43.7	40.7	25.0
20	10.2	54.8	44.6	52.8	42.6	41.7	38.7	25.0
25	11.4	53.3	41.9	51.3	39.9	39.8	36.8	24.2
31.25	12.8	51.9	39.1	49.9	37.1	37.9	34.9	23.3
62.5	18.5	47.4	28.9	45.1	26.9	31.8	28.8	20.7
100	23.8	44.3	20.5	42.3	18.5	27.8	24.8	19.0
155	30.2	41.5	11.3	39.5	9.3	23.9	20.9	17.4
200	34.8	39.8	5.0	37.8	3.0	21.7	18.7	16.4
250	39.3	38.3	0	36.3	NA	19.8	16.8	15.6



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MAKER :

CONFIRM :

APPROVAL :