



CHING TAI ELECTRIC WIRE & CABLE CO. LTD.

新泰工業股份有限公司

SPECIFICATION FOR APPROVAL

CUSTOMER :

CUSTOMER P/N :

DESCRIPTION : U/UTP Cat.5E 4 Pair Patch PVC Cable

VENDOR P/N : SB2BC001

REV. NO : 941216

DATE :

PART NO : GAD Series

審核 (Check) : _____ 工程 (Engineer) : _____

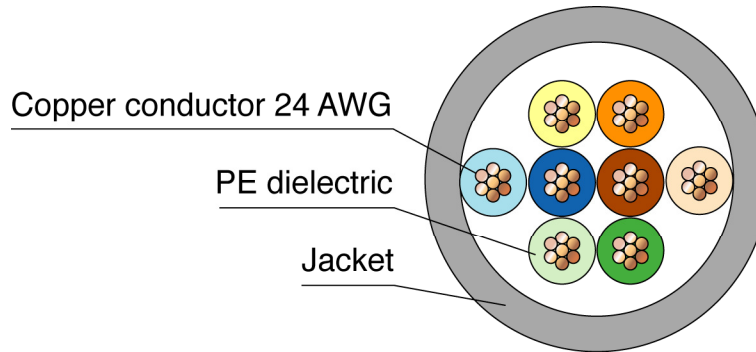


GAD Series

Patch Cable

U/UTP Cat.5E

100 Ω Data Cable EIA/TIA-568-B.2 Cat.5e



Application

Tertiary (Horizontal) IEEE 802.3: 10Base-T;
100BaseT; Gigabit-Ethernet

Standards

EIA/TIA 568-B.2; IEC 61156-5; ISO/IEC 11801; EN50173

Fire Rating

UL 1581 FT2 (horizontal flame); IEC 60332-1

Construction

Conductor	Stranded anneal copper wire \varnothing 0.59 mm (AWG24)
Insulation	Polyethylene, \varnothing 0.95 mm
Twisting	4 twisted pair, 2 cores to the pair, Twisted pair color code: 1: white-orange / orange 2: white-blue / blue 3: white-brown / brown 4: white-green / green
Cable lay up	4 pairs with different pitches
Outer diameter	5.4 mm \pm 0.2 mm

Mechanical Properties

Bending radius	\geq 4xOD without load \geq 8xOD with load
Temperature range,	
during operation	-20°C up to 60°C
during installation	0°C up to 50°C

Electrical Properties (at 20°C \pm 5°C)

DC resistance	max. 9.38 Ω / 100 m at 20 °C
Resistance unbalance	max. 5 % at 20 °C
Insulation resistance (500V)	min. 5000 M Ω /Km at 20 °C
Mutual capacitance	nom. 5.2 nf / 100 m at 1 kHz
Capacitance unbalance (pair to ground)	max. 160 pf / 100 m at 1 kHz
Characteristic impedance (1-100 MHz)	100 Ω \pm 15 Ω
Nominal velocity of propagation	nom. 66 %
Test voltage (DC, 1 min)	1 kV / 1 min



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Transmission characteristics acc. to EIA/TIA 568-B.2 Cat.5E (at 20 °C)

Frequency (MHz)	Impedance (Ω) Min.	Attenuation (dB) Max.	NEXT (dB) Min.	PSNEXT (dB) Min.	ACR (dB) Min.	PSACR (dB) Min.	ELFEXT (dB) Min.
1	100 \pm 15	3.0	65.3	62.3	62.3	59.3	63.8
4		6.2	56.3	53.3	50.1	47.1	51.7
8		8.7	51.8	48.8	43.1	40.1	45.7
10		9.8	50.3	47.3	40.5	37.5	43.8
16		12.3	47.3	44.3	35.0	32.0	39.7
20		14.0	45.8	42.8	31.8	28.8	37.7
25		15.6	44.3	41.3	28.7	25.7	35.8
31.25		17.6	42.9	39.9	25.3	22.3	33.9
62.5		25.5	38.4	35.4	12.9	9.9	27.8
100		33.0	35.3	32.3	2.3	--	23.8

Frequency (MHz)	PSELFEXT (dB) Min.	Return Loss (dB) Min.	Propagation Delay (ns) Max.	Delay Skew (ns) Max.
1	60.8	20.0	570.00	45
4	48.7	23.0	543.00	
8	42.7	24.5	538.50	
10	40.8	25.0	537.60	
16	36.7	25.0	536.25	
20	34.7	25.0	535.80	
25	32.8	24.2	535.44	
31.25	30.9	23.3	535.15	
62.5	24.8	20.7	534.58	
100	20.8	19.0	534.36	