



CHING TAI ELECTRIC WIRE & CABLE CO. LTD.

新泰工業股份有限公司

SPECIFICATION FOR APPROVAL

CUSTOMER : Jia Ying Trading Pte Ltd

CUSTOMER P/N :

DESCRIPTION : U/UTP Solid Cat.6 4 Pair 24AWG Cable

VENDOR P/N : SB3AK004

REV. NO : 2011.02.15

DATE : 2011.02.15

PART NO : GAR Series



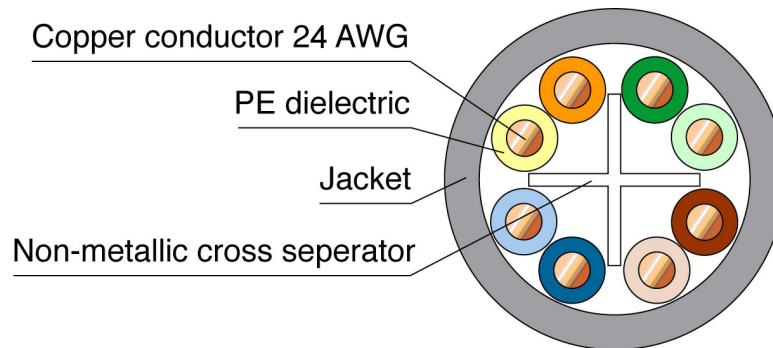
審核 (Check) : 黃 啟 萬 工程 部 (Engineer) : 陳 秋 伶



GAR Series

U/UTP Solid Cat.6

Cable: 4 Pair 24AWG Solid



Reference Standards
Fire Rating

IEC 61156-5; EN50288-6-1 ; TIA/EIA -568C.2
IEC 60332-1

Construction

Conductor	Bare copper wire nom. 1 x 0.51 mm (AWG24)
Insulation	Polyethylene, nom. 0.95 mm
Twisting	4 twisted pairs, 2 single conductors paired, Twisted pair color code: 1: white-blue/blue 2: white-orange/orange 3: white-green/green 4: white-brown/brown
Cable lay up	4 pairs with different pitches Non-metallic cross separator (spine)
Outer diameter	nom. 5.6 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 ± 5°C)

DC resistance	max. 9.38 Ω / 100m at 20°C
Resistance unbalance	max. 2 % at 20°C
Insulation resistance (500 V)	min. 5000 M Ω /Km at 20°C
Mutual capacitance	nom. 5.1 nf / 100 m at 1 kHz
Capacitance unbalance (pair to ground)	max. 160 pf / 100 m at 1 kHz
Nominal velocity of propagation	nom. 66 %
Test voltage (DC, 1 min)	1 kV / 1 min





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Transmission Performance acc. to IEC 61156-5 Cat.6 (at 20°C)

Frequency (MHz)	Impedance (Ω)	Attenuation (dB) Max.	NEXT (dB) Min.	PSNEXT (dB) Min.	ELFEXT (dB) Min.	PSELFEXT (dB) Min.
1	100 ± 15	*(2.0)	74.3	72.3	67.8	64.8
4		3.8	65.3	63.3	55.8	52.8
10		6.0	59.3	57.3	47.8	44.8
16		7.6	56.3	54.3	43.7	40.7
20		8.5	54.8	52.8	41.8	38.8
31.25		10.7	51.9	49.9	37.9	34.9
62.5		15.4	47.4	45.4	31.9	28.9
100	100 ±22	19.8	44.3	42.3	27.8	24.8
125		22.4	42.8	40.8	25.9	22.9
200		29.0	39.8	37.8	21.8	18.8
250		32.8	38.3	36.3	19.8	16.8

Frequency (MHz)	Return Loss (dB) Min.	Propagation Delay (ns) Max.	Delay Skew (ns) Max.
1	20.0	570.0	45
4	23.0	552.0	
10	25.0	545.4	
16	25.0	543.0	
20	25.0	542.0	
31.25	23.6	540.4	
62.5	21.5	538.6	
100	20.1	537.6	
125	19.4	537.2	
200	18.0	536.6	
250	17.3	536.3	

*Values shown on tables above are for reference purpose only.

