



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 Solid Cat.5e 4 Pair 24AWG---PE Cable

VENDOR P/N : SB2AB007

REV. NO : 20110511-1

DATE : 20110513

PART NO : GAL303

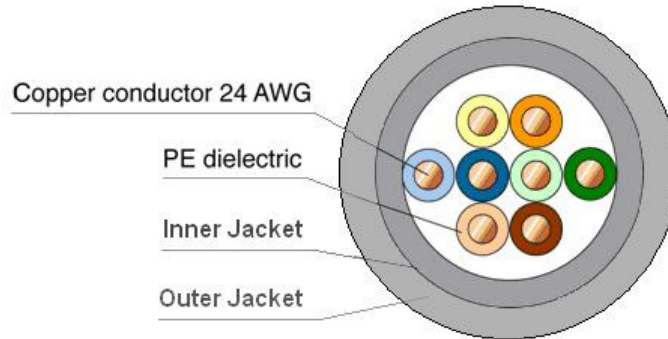


審核 (Check) : 黃 啟 萬工程部 (Engineer) : 劉 育 倫

GAL303

U/UTP Solid Cat.5e

Cable: 4 Pair 24AWG Solid--**PE**



Reference Standards

TIA/EIA -568C.2

Construction

Conductor	Bare copper wire nom. 1 x 0.50 mm (AWG24)
Insulation	Polyethylene, nom. 0.91 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
Inner jacket	FRPVC
Inner diameter	nom. 5.2 mm
Outer jacket	PE
Outer diameter	nom. 6.4 mm
Marking	Lines CATEGORY 5E CABLE 4PR U/UTP 24AWG OUTDOOR DUAL JACKET 001~500 M
Marking Color	Yellow

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 / 100 m at 20 °C
Resistance unbalance	max. 2 % at 20 °C
Insulation resistance (500V)	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 TIA/EIA 568C.2 (at 20°C)

Frequency (MHz)	Impedance (Ω)	Attenuation (dB) Max.	NEXT (dB) Min.	PSNEXT (dB) Min.	ELFEXT (dB) Min.	PSELFEXT (dB) Min.
1	100 \pm 15	2.0	65.3	62.3	63.8	60.8
4		4.1	56.3	53.3	51.7	48.7
10		6.5	50.3	47.3	43.8	40.8
16		8.2	47.3	44.3	39.7	36.7
20		9.3	45.8	42.8	37.7	34.7
31.25		11.7	42.9	39.9	33.9	30.9
62.5		17.0	38.4	35.4	27.8	24.8
100		22.0	35.3	32.3	23.8	20.8

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	

