

GLCAU6L-B

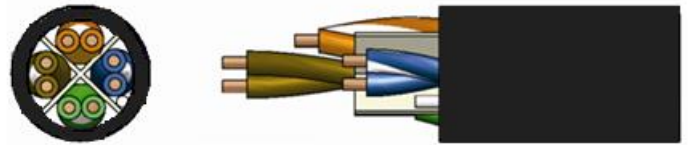
4 X 23AWG – 250MHz U-UTP LSZH Cable

Application

For horizontal network and voice application in a structured cabling system , including IEEE802.3 1000 Base-T, 100 Base-Tx, 10 Base-T, 1000 Base-Tx (ANSI/TIA/EIA-854-2001), 155Mb/s ATM, 4/16 Mb/s Token ring etc..

Construction

Solid bare copper conductors insulated with polyolefin. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit. A cross filler is cabled in between to separate the 4 pairs insulated conductors Overall jacket with LSZH compound.



Reference Standards

- International: IEC 61156-5 edit 2.0
- North American: TIA-568-C.2 Cat.6

Physical dimensions

1- Conductor

Size: 23AWG
Type: Solid bare copper
Diameter: 0.55 ± 0.01 mm

2- Insulation

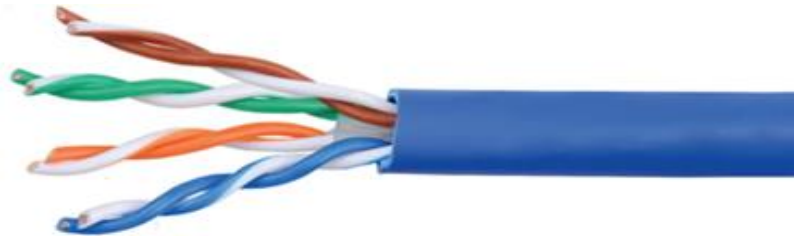
Type: PE
Diameter: 0.973 ± 0.05 mm
Min. thickness: 0.186 mm

3- Cable core

Color code pair 1: Blue / White – Blue strip
Color code pair 2: Orange / White – Orange strip
Color code pair 3: Green / White – Green strip
Color code pair 4: Brown / White – Brown strip

4- Central Element

Type: PE cross separator



**25 years System
Warranty**



5- Jacket

Type: LSZH

Overall Diameter: 6.1 ± 0.3

Technical Data - Physical

1- Cold bend test

$-20 \pm 2^{\circ}\text{C}$ x 4hrs no. crack

2- Dielectric strength

AC 1.7 KV for 2S

3- Insulation

Before Aging – Min. Tension strength: 2400 psi

Before Aging – Min. elongation: 300 %

After Aging – 75% before aging (100°C x 48hrs)

After Aging – 75% before aging (100°C x 48hrs)

4- Jacket

Before Aging – Min. Tension strength: 1300 psi

Before Aging – Min. elongation: 100 %

After Aging – 60% before aging (100°C x 168hrs)

After Aging – 60% before aging (100°C x 168hrs)

5- Min. bending radius: 50 mm

6- Max. pulling tension: 25 lbs.

7- Installation temperature: -10°C to $+60^{\circ}\text{C}$

8- Operating temperature: -10°C to $+60^{\circ}\text{C}$

9- PACKING: 305/500/1000m on a wooden drum overall wrapped over by PE film

10- Marking : Fumo Telecommunications Golden Link GLCAU6L- UTP 23AWG CAT6 LSZH EC Verified ISO/IEC 11801 TIA/EIA 568C.2 ccc METER **Made in Taiwan (Plastic drum)**

TECHNICAL DATA - ELECTRICAL

1. Conductor resistance ($\Omega/100\text{m}$ @ 20°C)	Max.	9.5	
2. DC resistance unbalance (%)	Max.	4	
3. Pair-to-ground capacitance unbalance (pF/km)	Max.	1600	
4. Delay skew (ns/100m)	Max.	45	$4 \leq f \leq 250\text{MHz}$
5. Insertion Loss (dB/100m)	Max.	$1.82 \cdot \sqrt{f} + 0.0169 \cdot f + 0.25/\sqrt{f}$	$1 \leq f \leq 250\text{MHz}$
6. Pair to Pair NEXT (dB/100m)	Min.	$75.3 - 15 \cdot \log(f)$	$1 \leq f \leq 250\text{MHz}$
7. PowerSum pr-pr NEXT (dB/100m)	Min.	$72.3 - 15 \cdot \log(f)$	$1 \leq f \leq 250\text{MHz}$
8. ELFEXT (dB/100m)	Min.	$68 - 20 \cdot \log(f)$	$1 \leq f \leq 250\text{MHz}$
9. PowerSum ELFEXT (dB/100m)	Min.	$65 - 20 \cdot \log(f)$	$1 \leq f \leq 250\text{MHz}$
10. Return Loss (dB)	Min.	$20 + 5 \cdot \log(f)$	$1 \leq f < 10\text{MHz}$



		25	$10 \leq f < 20\text{MHz}$
		$25 - 7 * \log(f / 20)$	$20 \leq f \leq 250\text{MHz}$
11. Propagation Delay (ns/100m)	Max.	$534 + 36 / \sqrt{f}$	$1 \leq f \leq 250\text{MHz}$
12. Input Impedance (Ω)		$100 \pm 15\%$	$1 \leq f \leq 100\text{MHz}$
		$100 \pm 22\%$	$100 < f \leq 250\text{MHz}$

IEC 61156-5 ed2.0 Category 6 horizontal cable parameters

Frequency [MHz]	Insertion Loss (dB/100m) Max.	RL (Return Loss) [dB] Min.	Pair to Pair NEXT (dB/100m) Min.	Pair to Pair ELFEXT (dB/100m) Min.	Power Sum NEXT (dB/100m) Min.	Power Sum ELFEXT (dB/100m) Min.	Po. Delay (ns/100) Max.
1	2.1	20	75.0	68.0	72.3	65.0	570.0
4	3.8	23	66.3	56.0	63.3	53.0	552.0
10	6.0	25	60.3	48.0	57.3	45.0	545.4
16	7.6	25	57.2	43.9	54.2	40.9	543.0
20	8.5	25	55.8	42.0	52.8	39.0	542.0
31.25	10.7	23.6	52.9	38.1	49.9	35.1	540.4
62.5	15.5	21.5	48.4	32.1	45.4	29.1	538.6
100	19.9	20.1	45.3	28.0	42.3	25.0	537.6
200	29.1	18	40.8	22.0	37.8	19.0	536.5
250	33.0	17.3	39.3	20.0	36.3	17.0	536.3

Note1: All tests include 401 points swept frequency measurements

Note2: All electrical characteristics are given at 20°C

PRODUCT Family

GLCAU6L-B	Blue
GLCAU6L-GY	Gray
GLCAU6L-W	White
GLCAU6L-OW	Off White
GLCAU6L-GN	Green
GLCAU6L-Y	Yellow

**25 Years System
Warranty**

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