Fumo Telecommunications
POWER OF CONNECTION

GLCAU6AP-B

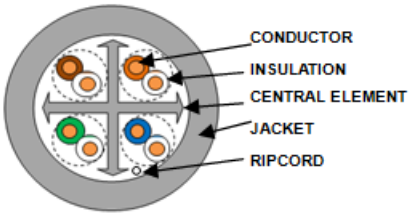
4 X 23AWG – 500MHz U-UTP PVC Cable

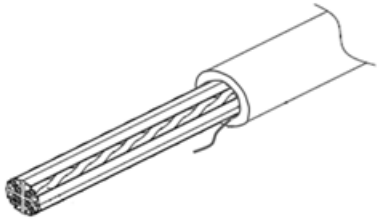
Application

For horizontal network and voice application in a structured cabling system, including IEEE 802.3an : 10G Base-T Gigabit Ethernet, 2.4/1.2Gb/s ATM, digital video, broadband & baseband analog video.

Construction

Solid bare copper conductors insulated with thermoplastics polyolefin. Two insulated conductors twisted together. Four such pairs separated by cross filler. Outer Jacket with PVC compound.





Reference Standards

- International: IEC 61156-5 ED 2.0

Reference Standards

Delta EC verified

Physical dimensions

1- **Conductor**
Size: 23AWG
Type: Solid bare copper
Diameter: 0.56± 0.01 mm

2- **Insulation**
Type: PE
Diameter: 1.03± 0.05 mm
Min. thickness: 0.21 mm

25 Years System Warranty

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**
PE Cross Filler

5- **Jacket**
Type: PVC
Overall Diameter: 8.3 ± 0.3

Technical Data - Physical

1- **Cold bend test**
-20 ± 2°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: 2000 psi
Before Aging – Min. elongation: 100 %
After Aging – 75% before aging (100°C x 168hrs)
After Aging – 50% before aging (100°C x 168hrs)

5- **Min. bending radius:** 65 mm

6- **Max. pulling tension:** 25 lbs.

7- **Installation temperature:** -10°C to +60°C

8- **Operating temperature:** -10°C to +60°C

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

10- **Marking :** Fumo Telecommunications Golden Link GLCAU6AP- UTP 23AWG CAT6A PVC EC Verified ISO/IEC 11801 TIA/EIA 568C.2 ccc METER **Made in Taiwan (Plastic drum)**

25 Years System Warranty

TECHNICAL DATA - ELECTRICAL

1. Conductor resistance (Ω/100m @ 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 ≦ f ≦ 500MHz
5. Insertion Loss (dB/100m)	Max.	1.82*√f + 0.0091* f +0.25/√f	1 ≦ f ≦ 500MHz
6. Pair to Pair NEXT (dB/100m)	Min.	75.3 - 15 * log(f)	1 ≦ f ≦ 500MHz
		Values greater than 75dB shall be converted to 75dB	
7. PowerSum pr-pr NEXT (dB/100m)	Min.	72.3 - 15 * log(f)	1 ≦ f ≦ 500MHz
		Values greater than 75dB shall be converted to 75dB	
8. ELFEXT (dB/100m)	Min.	68 - 20 * log(f)	1 ≦ f ≦ 500MHz
		Values greater than 75dB shall be converted to 75dB	
9. PowerSum ELFEXT (dB/100m)	Min.	65 – 20 * log(f)	1 ≦ f ≦ 500MHz
		Values greater than 75dB shall be converted to 75dB	
10. Return Loss (dB)	Min.	20 + 5 * log(f)	1 ≦ f ＜10MHz
		25	10 ≦ f ＜20MHz
		25 - 7 * log(f / 20)	20 ≦ f ≦250MHz
		17.3	250 < f ≦500MHz
11. Propagation Delay (ns/100m)	Max.	534 + 36 /√f	1 ≦ f ≦ 500MHz
12. Input Impedance (Ω)		100 ± 15%	1 ≦ f ≦ 250MHz
		100 ± 22%	250＜f≦ 500MHz

IEC 61156-5 ed2.0 Category 6A 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.	Delay Skew (ns/100) Max.	Po. Delay (ns/100) Max.
1	-	20	-	-	72.3	-	-	570.0
4	3.8	23	66.3	56.0	63.3	53.0	45	552.0
10	5.9	25.0	60.3	48.0	57.3	45.0	45	545.4
16	7.5	25.0	57.2	43.9	54.2	40.9	45	543.0
20	8.4	25.0	55.8	42.0	52.8	39.0	45	542.0
31.25	10.5	23.6	52.9	38.1	49.9	35.1	45	540.4
62.5	15	21.5	48.4	32.1	45.4	29.1	45	538.6
100	19.1	20.1	45.3	28.0	42.3	25.0	45	537.6
200	27.6	18.0	40.8	22.0	37.8	19.0	45	536.5
250	31.1	17.3	39.3	20.0	36.3	17.0	45	536.3

300	34.3	17.3	38.1	18.5	35.1	15.5	45	536.1
400	40.1	17.3	36.3	16.0	33.3	13.0	45	535.8
500	45.3	17.3	34.8	14.0	31.8	11.0	45	535.6

Note1: All tests include 401 points swept frequency measurements
Note2: All electrical characteristics are given at 20°C

PRODUCT Family

GLCAU6AP-B	Blue
GLCAU6AP-GY	Gray
GLCAU6AP-W	White
GLCAU6AP-OW	Off White
GLCAU6AP-GN	Green
GLCAU6AP-Y	Yellow