

## SPECIFICATION: CBL-C61EP-XX-AM

**SPEC NO:** CAT 6, SOLID, U/UTP, 4PR, 23AWG, 550MHZ

**REVIEW DATE:** 7/06/07

**UL FILE NO:** E129760

**UL TYPE:** CM

**CSA FILE NO:** 0

**CSA TYPE:** FT6

**RoHS**

## ELECTRICAL CHARACTERISTICS

- **Temperature rating:** 75°C
- **Spark test:** AC-2000V/0.15sec min
- **Dielectric strength:** AC-750V/1sec min
- **Insulation resistance:** FEB:DC-500V 1500MΩ / 100M min at 20°C
- **Capacitance:**
  - **Mutual capacitance:** 5.6nF/100M max
  - **Pair to ground Unbalance:** 330pF/100M max
- **D-C Resistance:** 9.4 ohm/100M at 20°C max
- **D-C Resistance Unbalance:** 5% max
- **Impedance:** 100-350MHZ: 100 ± 22Ω  
350-550MHZ: 100 ± 32Ω

## CONSTRUCTION

### CONDUCTORS

Construction: 23 AWG (1/23)  
Material: Bare Copper  
Diameter: 0.6mm

### INSULATION

Material: FEP  
Diameter: 1.02mm ± 0.03mm  
Average Thickness: 0.21mm Ref  
Color: As Per T568B

### TWIST

Direction: Right (S)  
Diameter: 2.04mm Ref

### LAYER

Direction: Right (S)  
Pitch: 120mm Ref  
Diameter: 4.5mm Ref

### JACKET

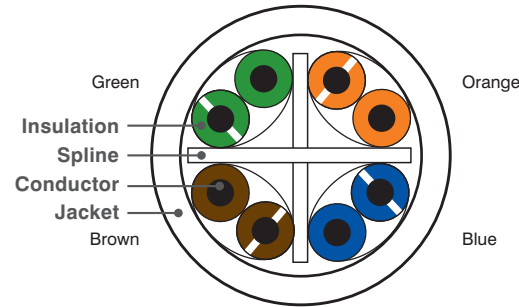
Material: PVC (CMP)  
Diameter: 6.0mm ± 0.19mm  
Average Thickness: 0.50mm

### CABLE MARKING

SPACE SHUTTLE-C, E12976, (UL), CM, 75°C, 4UTP, 23AWG, SOLID, ETL, CMP, VERIFIED TIA/EIA 568B.2, CAT-6, 550MHZ, RoHS, FT6, 1000FT

## WIRING TABLE (T568B)

PAIR NUMBER	PAIR COLOR CODE	
1	white/blue stripe	blue solid
2	white/orange stripe	orange solid
3	white/green stripe	green solid
4	white/brown stripe	brown solid



## TIA/EIA-568-B.2

Frequency (MHZ)	1	4	8	10	16	20	31.25	62.5	100	155	200	250	300	400	500	550
Attenuation. (dB/100m)	2.0	3.8	5.3	5.9	7.5	8.4	10.5	15.1	19.4	24.6	28.3	32.0	35.4	41.6	47.3	49.9
NEXT(dB)	79.3	70.3	65.8	64.3	61.3	59.8	56.9	52.4	49.3	46.5	44.8	43.3	42.2	40.3	38.8	38.2
ACR(dB)	77.3	66.5	60.5	58.4	53.8	51.4	46.4	37.2	29.9	21.9	16.5	11.4	6.8	0.0	N/A	N/A
PS.NEXT (Power Sum)(dB)	77.3	68.3	63.8	62.3	59.3	57.8	54.9	50.4	47.3	44.5	42.8	41.3	40.2	38.3	36.8	36.2
PS.ACR(dB)	75.3	64.5	58.5	56.4	51.8	49.4	44.4	35.2	27.9	19.9	14.5	9.4	4.8	0.0	N/A	N/A
ELFEXT (Pair-Pair)(dB)	69.8	57.7	51.7	49.8	45.7	43.8	39.9	33.9	29.8	26.0	23.8	21.8	20.3	17.8	15.8	15.0
PS.ELFEXT (Power Sum)(dB)	66.8	54.7	48.7	46.8	42.7	40.8	36.9	30.8	26.8	23.0	20.8	18.8	17.3	14.8	12.8	12.0
Return Loss (Term)Near(dB)	20.0	23.0	24.5	25.0	25.0	25.0	25.0	21.5	20.1	18.8	18.0	17.3	16.8	15.9	15.2	14.9

### FLAME TEST OF CABLE:

Sheath: UL Fire testing of CMP/FT6

### TENSILE STRENGTH TEST BEFORE AGING:

Sheath: >1.4kg/mm2

### TENSILE STRENGTH TEST AFTER AGING:

Sheath: >85% Tensile strength

### ELONGATION BEFORE AGING:

Sheath: >100%

### ELONGATION AFTER AGING:

Sheath: >50% Elongation