

SPECIFICATION: CBL-C61ES-XX-AM

SPEC NO: CAT 6, SOLID,F/UTP, 4PR, 24AWG, 550MHZ

REVIEW DATE: 2/10/15

UL FILE NO: E151955

UL TYPE: CMR

CSA FILE NO: LL79189

CSA TYPE: FT4

RoHS

ELECTRICAL CHARACTERISTICS

- **Temperature rating:** -20°C - 75°C
- **Spark test:** AC-2000V/0.15sec min
- **Dielectric strength:** AC-750V/1sec min
- **Insulation resistance:** PE: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:** 9.38 ohm/100M at 20°C max
- **D-C Resistance Unbalance:** 5% max
- **Impedance:** 100 ± 15Ω at 100-550MHZ

CONSTRUCTION

CONDUCTORS

Construction: 24 AWG (1/24)
Material: Bare Copper
Diameter: 0.53mm ± 0.03mm

INSULATION

Material: HD-PE
Diameter: 1.05mm ± 0.03mm
Average Thickness: 0.20mm ± 0.02mm
Color: As Per T568B

SHIELDING

AL/Pet Tape: 0.050mm x 22
Overlapping Rate: 17.6
Drain Wire: 24 AWG (1/24) (Tinned copper)

OUTSIDE JACKET

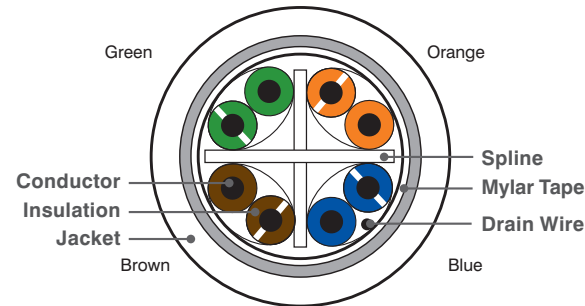
Material: PVC
Diameter: 6.6mm ± 0.2mm
Average Thickness: 0.55mm

CABLE MARKING

TYPE CMR, 4PR, SOLID, 24AWG, 75°C, (UL), E151955, CSA, LL79189, 75°C, ANSI/TIA-568C.2, STP, CAT6, 550MHz, FT4, CABLE MASTER, RoHS compliant, A5B807-12, 1000F

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



EIA/TIA-568-C.2 | ISO/IEC 11801

Frequency (MHZ)	1	10	16	20	31.25	62.5	100	200	250	*300	*350	*400	*500	*550
Attenuation. (bb/100m)	*2.5	7.5	9.4	10.5	13.1	18.4	23.2	29.9	35.9	41.4	45.37	51.1	53.3	55.8
NEXT(Pair-Pair)(dB)	72.3	59.3	56.2	54.8	51.9	47.4	44.3	39.8	38.3	37.1	36.5	35.3	33.8	30.1
PS.NEST (Power Sum)(dB)	74.3	57.3	54.2	52.8	49.9	45.4	42.3	37.8	36.3	35.1	34.15	33.3	31.8	28.5
ELFEXT (Pair-Pair)(dB)	67.8	47.8	43.7	41.8	37.9	31.9	27.8	21.8	19.8	18.2	16.5	15.7	13.8	12.9
PS.ELFEXT (Power Sum)(dB)	64.8	44.8	40.7	38.8	34.9	28.9	24.8	18.8	16.8	15.2	13.8	12.7	10.5	9.87
Return Loss (Term)Near(dB)	20.0	25.0	25.0	25.0	23.6	21.5	20.1	18.0	17.3	16.8	16	15.9	15.2	15
Prop Delay ns	570	545	543	542	540	539	538	537	536	536	536	536	536	536
Delay Skew ns	45	45	45	45	45	45	45	45	45	45	45	45	45	45

The asterisked (*) values shown on tables above are for reference purpose only.

FLAME TEST OF CABLE:

Sheath: UL Fire testing of CMR/FT4

TENSILE STRENGTH TEST BEFORE AGING:

Sheath: > 1.4kg/mm2
Insulation: > 1.68kg/mm2

TENSILE STRENGTH TEST AFTER AGING:

Sheath: >85% Tensile strength
Insulation: > 75% Tensile strength

ELONGATION BEFORE AGING:

Sheath: > 100%
Insulation: > 300%

ELONGATION AFTER AGING:

Sheath: > 50% Elongation
Insulation: > 75% Elongation