

SPECIFICATION: CBL-C57ES-XX-AM

SPEC NO: CAT 5E, SOLID, F/UTP, 4PR, 24AWG, 350MHZ

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 100-350MHZ

CONSTRUCTION

CONDUCTORS

Construction: 24 AWG (1/24)
Material: Bare Copper
Filler Material: /
Diameter: 0.5mm ± 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: 0.05mm x 18
Overlapping Rate: 17.6%
Drain Wire: 24 AWG (1/24) (Tinned copper)

OUTSIDE JACKET

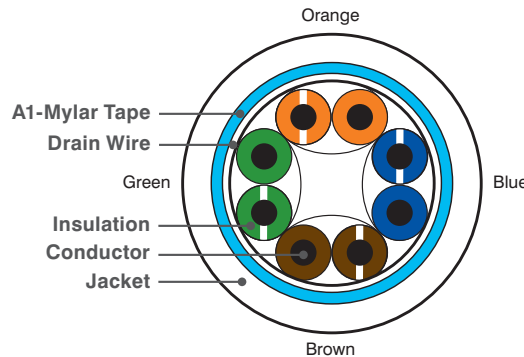
Material: PVC
Diameter: 6.1mm ± 0.2mm
Average Thickness: 0.55mm

CABLE MARKING

TYPE CMR, 4PR, STRANDED, 24AWG, 75 C, (UL), E151955, CSA LL79189, 75 , ISO/IEC 11801, ENHANCED 350MHZ, STP, CAT.5E, FT4, CABLE MASTER, ROHS COMPLIANT, A5B902-12, 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 |



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

| Frequency (MHZ) | 1 | 10 | 16 | 20 | 31.25 | 62.5 | 100 | *200 | *250 | *300 | *350 |
|-----------------------------------|------|------|------|------|-------|------|------|------|------|------|------|
| Attenuation. (bb/100m) | *2.5 | 7.5 | 9.4 | 10.5 | 13.1 | 18.4 | 23.2 | 34.4 | 39.4 | 43.9 | 46.9 |
| NEXT(Pair-Pair)(dB) | 65.3 | 50.3 | 47.3 | 45.8 | 42.9 | 38.4 | 35.3 | 32.1 | 31.4 | 30.5 | 30.1 |
| PS NEST (Power Sum)(dB) | 62.3 | 47.3 | 44.4 | 42.8 | 39.9 | 35.4 | 32.3 | 30.6 | 29.0 | 28.6 | 28.1 |
| ELFEXT (Pair-Pair)(dB) | 63.8 | 43.8 | 39.7 | 35.8 | 33.9 | 27.8 | 23.8 | 17.7 | 16.0 | 14.5 | 12.9 |
| PS.ELFEXT (Power Sum)(dB) | 60.8 | 40.8 | 36.7 | 34.7 | 32.8 | 24.8 | 20.8 | 17.4 | 15.8 | 14.1 | 12.5 |
| Return Loss (Term)Near(dB) | 20.0 | 25.0 | 25.0 | 25.0 | 23.6 | 21.5 | 20.1 | 18.0 | 17.3 | 16.4 | 15.6 |
| Prop Delay ns | 570 | 545 | 543 | 542 | 540 | 539 | 538 | 537 | 536 | 536 | 536 |
| Delay Skew ns | 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