

### SPECIFICATION: CBL-C58ES-XX-AM

**SPEC NO:** CAT 5E, STRANDED, 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:** 8.76 ohm/100M at 20°C max
- **D-C Resistance Unbalance:** 5% max
- **Impedance:** 100 ±15Ω at 100-350MHZ

### CONSTRUCTION

#### CONDUCTORS

Construction: 24 AWG (7/32)  
 Material: Bare Copper  
 Filler Material: /  
 Diameter: 0.193mm ± 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 (7/32) (Tinned copper)

#### OUTSIDE JACKET

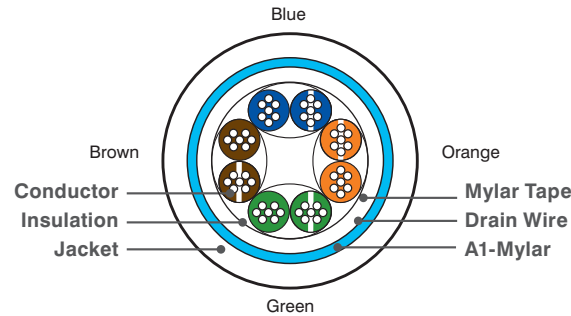
Material: PVC  
 Diameter: 6.1mm ± 0.2mm  
 Average Thickness: 0.55mm

#### CABLE MARKING

TYPE CMR, 4PR, SOLID, 24AWG, 75 C, (UL), E151955, CSA LL79189, 75 , ISO/IEC 11801, ENHANCED 350MHZ, STP, CAT.5E, FT4, CABLE MASTER, ROHS COMPLIANT, A5B803-12, 1000FT

### WIRING TABLE (T568B)

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



### 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)	*2.8	7.8	9.9	11.1	14.1	20.4	26.4	34.8	39.4	46.9	50.1
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	16.2	14.5	12.9
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