

SPECIFICATION: CBL-C59P-XX-AM

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

REVIEW DATE: 2/10/15

UL FILE NO: E129760

UL TYPE: CMP

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
- **D-C Resistance:** 9.38 ohm/KM at 20°C max
- **D-C Resistance Unbalance:** 5% max
- **Impedance:** 1-100MHZ: 100 ± 15%
100-200MHZ: 100 ± 22%
200-350MHZ: 100 ± 32%

CONSTRUCTION

CONDUCTORS

Construction: 24 AWG (1/24)
Material: Bare Copper
Filler Material: /
Diameter: 0.5mm REF

INSULATION

Material: FEP
Diameter: 0.85mm ± 0.03mm
Average Thickness: 0.18mm
Color: As Per T568B

TWIST

Direction: Left (Z)
Diameter: 1.76mm

LAYER

Direction: Right (S)
Pitch: 110mm Ref
Diameter: 3.66mm Ref

JACKET

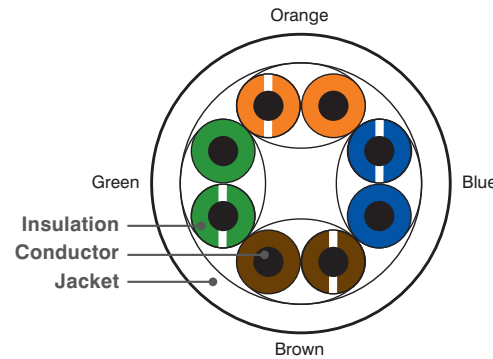
Material: PVC (CMP)
Diameter: 4.9mm ± 0.15mm
Average Thickness: 0.62mm

CABLE MARKING

SPACE SHUTTLE-C, E12976, (UL), CM, 75 C, 4UTP, 24AWG, SOLID, ETL, CMP, VERIFIED TIA/EIA 568B.2, CAT-5E ENHANCED, 3550MHZ, 4UTP, 24AWG, 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



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

Frequency (MHZ)	1	10	16	20	31.25	62.5	100	*200	*250	*300	*350
Attenuation. (dB/100m)	2.0	6.5	8.2	9.3	11.7	17	22	32.4	36.5	42.9	45.4
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	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	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	25	25	25	23.6	21.5	20.1	18	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 CMP/FT6

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