

884027814/10 | CS31CM GRY C6 4/23 U/UTP CPK 305M

---



CS31CM Category 6 U/UTP Cable, non-plenum, gray jacket, 4 pair count, 1000 ft (305 m) length Commpak

Product Classification

Regional Availability	Asia
Portfolio	NETCONNECT®
Product Type	Twisted pair cable
Ordering Note	Available in Asia Pacific

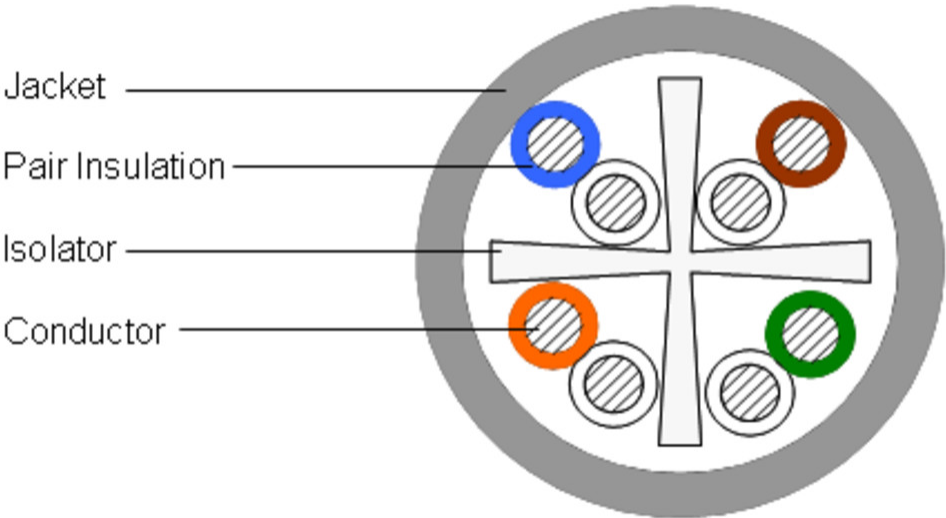
General Specifications

Product Number	CS31CM
ANSI/TIA Category	6
Cable Component Type	Horizontal
Cable Type	U/UTP (unshielded)
Conductor Type, singles	Solid
Conductors, quantity	8
Jacket Color	Gray
Note	All electrical transmission tests include swept frequency measurements
Pairs, quantity	4
Separator Type	Isolator
Supported Application	1000BASE-T   1000BASE-TX   100BASE-TX   10BASE-T   155Mbps ATM   TP-PMD   Token Ring   VoIP
Transmission Standards	ANSI/TIA-568.2-D   CENELEC EN 50288-6-1   IEC 61156-5   ISO/IEC 11801 Class E

Dimensions

Cable Length	304.8 m   1000 ft
Diameter Over Insulated Conductor	1.029 mm   0.041 in
Diameter Over Jacket, nominal	5.842 mm   0.23 in
Jacket Thickness	0.559 mm   0.022 in
Conductor Gauge, singles	23 AWG

Cross Section Drawing



Electrical Specifications

Characteristic Impedance	100 ohm
dc Resistance Unbalance, maximum	5 %
dc Resistance, maximum	8 ohms/100 m   2.438 ohms/100 ft
Delay Skew, maximum	45 ns
Dielectric Strength, minimum	1500 Vac   2500 Vdc
Mutual Capacitance at Frequency	5.6 nF/100 m @ 1 kHz
Nominal Velocity of Propagation (NVP)	68 %
Operating Frequency, maximum	250 MHz
Operating Voltage, maximum	80 V
Propagation Delay, maximum	536 ns/100m @250MHz
Remote Powering	Fully complies with the recommendations set forth by IEEE 802.3bt (Type 4) for the safe delivery of power over LAN cable when installed according to ISO/IEC 14763-2, CENELEC EN 50174-1, CENELEC EN 50174-2 or TIA TSB-184-A

## Electrical Cable Performance

<b>CS</b>	CommScope		
<b>STD</b>	Refers to the standard value listed under Transmission Standards in the Electrical Specifications above		
<b>TYP</b>	Typical Electrical Performance		
<b>IL</b>	Insertion Loss (dB/100m)	<b>NEXT</b>	Near End Crosstalk (dB/100m)
<b>ACR</b>	Attenuation to Crosstalk Ratio (dB/100m)	<b>PSNEXT</b>	Power Sum Near End Crosstalk (db/100m)
<b>PSACR</b>	Power Sum Attenuation to Crosstalk Ratio (dB/100m)	<b>ACRF</b>	Attenuation to Crosstalk Ratio - Far End (dB/100m)
<b>PSACRF</b>	Power Sum Attenuation to Crosstalk Ratio - Far End (dB/100m)	<b>RL</b>	Return Loss (dB)
<b>TCL</b>	Transverse Conversion Loss (dB/100m)	<b>ELTCTL</b>	Equal Level Transverse Conversion Transfer Loss (dB/100m)

Freq. MHz	IL		NEXT		ACR		PSNEXT		PSACR		ACRF		PSACRF		RL		TCL		ELTCTL	
	CS	STD	CS	STD	CS	STD	CS	STD	CS	STD	CS	STD	CS	STD	CS	STD	CS	STD	CS	STD
1	2	2	75.3	74.3	73.3	72.3	72.3	72.3	70.3	70.3	68	67.8	65	64.8	20	20	40	40	35	35
4	3.8	3.8	66.3	65.3	62.5	61.5	63.3	63.3	59.5	59.5	56	55.8	53	52.8	23	23	40	40	23	23
8	5.3	5.3	61.8	60.8	56.4	55.4	58.8	58.8	53.4	53.4	49.9	49.7	46.9	46.7	24.5	24.5	40	40	16.9	16.9
10	6	6	60.3	59.3	54.3	53.3	57.3	57.3	51.3	51.3	48	47.8	45	44.8	25	25	40	40	15	15
16	7.6	7.6	57.2	56.2	49.7	48.7	54.2	54.2	46.7	46.7	43.9	43.7	40.9	40.7	25	25	38	38	10.9	10.9
20	8.5	8.5	55.8	54.8	47.3	46.3	52.8	52.8	44.3	44.3	42	41.8	39	38.8	25	25	37	37	9	9
25	9.5	9.5	54.3	53.3	44.8	43.8	51.3	51.3	41.8	41.8	40	39.8	37	36.8	24.3	24.3	36	36	7	7
31.25	10.7	10.7	52.9	51.9	42.2	41.2	49.9	49.9	39.2	39.2	38.1	37.9	35.1	34.9	23.6	23.6	35.1	35.1		
62.5	15.4	15.4	48.4	47.4	33	32	45.4	45.4	30	30	32.1	31.9	29.1	28.9	21.5	21.5	32	32		
100	19.8	19.8	45.3	44.3	25.5	24.5	42.3	42.3	22.5	22.5	28	27.8	25	24.8	20.1	20.1	30	30		
155	25.2	25.2	42.4	41.4	17.3	16.3	39.4	39.4	14.3	14.3	24.2	24	21.2	21	18.8	18.8	28.1	28.1		
200	29	29	40.8	39.8	11.8	10.8	37.8	37.8	8.8	8.8	22	21.8	19	18.8	18	18	27	27		
250	32.8	32.8	39.3	38.3	6.5	5.5	36.3	36.3	3.5	3.5	20	19.8	17	16.8	17.3	17.3	26	26		

## Material Specifications

Conductor Material	Bare copper
Insulation Material	Polyolefin
Jacket Material	PVC
Separator Material	Polyolefin

## Mechanical Specifications

Minimum Bend Radius Note	4 times the outer cable diameter
Pulling Tension, maximum	11.34 kg   25 lb

## Environmental Specifications

Installation temperature	0 °C to +60 °C (+32 °F to +140 °F)
Operating Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Storage Temperature	-20 °C to +80 °C (-4 °F to +176 °F)

# 884027814/10 | CS31CM GRY C6 4/23 U/UTP CPK 305M

---

Environmental Space	Non-plenum
Flame Test Method	CM
Packaging and Weights	
Cable weight	38.543 kg/km   25.9 lb/kft
Packaging Type	CommPak® box

## Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>