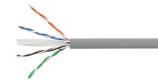
884035994/10 | CS31Z1 GRY C6 4/23 U/UTP RIB



CS31Z1 Category 6 U/UTP Cable, low smoke zero halogen, gray jacket, 4 pair count, 1000 ft (305 m) length reel-in-box

Product Classification

Regional Availability Asia

Portfolio NETCONNECT®

Product Type Twisted pair cable

Ordering Note Available in Asia Pacific

General Specifications

Product Number CS31Z1

ANSI/TIA Category 6

Cable Component Type Horizontal

Cable Type U/UTP (unshielded)

Conductor Type, singles Solid

Conductors, quantity 8

Jacket Color Gray

NoteAll 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 | VolP

Transmission Standards ANSI/TIA-568.2-D | CENELEC EN 50288-6-1 | IEC 61156-5 | ISO/IEC 11801

Class E

Dimensions

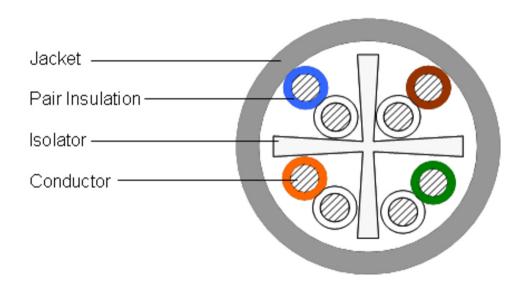
Cable Length304.8 m | 1000 ftDiameter Over Insulated Conductor0.98 mm | 0.039 inDiameter Over Jacket, nominal5.751 mm | 0.226 in

Conductor Gauge, singles 23 AWG

Cross Section Drawing



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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, minimum1500 Vac | 2500 VdcMutual Capacitance at Frequency5.6 nF/100 m @ 1 kHz

Nominal Velocity of Propagation (NVP) 68 %

Operating Frequency, maximum $250 \, \text{MHz}$ Operating Voltage, maximum $80 \, \text{V}$

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



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Electrical Cable Performance

CS CommScope

STD Refers to the standard value listed under Transmission Standards in the Electrical Specifications above

TYP Typical Electrical Performance

IL Insertion Loss (dB/100m) NEXT Near End Crosstalk (dB/100m)

 ACR
 Attenuation to Crosstalk Ratio (dB/100m)
 PSNEXT
 Power Sum Near End Crosstalk (db/100m)

 PSACR
 Power Sum Attenuation to Crosstalk Ratio (dB/100m)
 ACRF
 Attenuation to Crosstalk Ratio - Far End (dB/100m)

PSACRF Power Sum Attenuation to Crosstalk Ratio - Far End (dB/100m) RL Return Loss (dB)

TCL Transverse Conversion Loss (dB/100m) ELTCTL Equal Level Transverse Conversion Transfer Loss (dB/100m)

Freq. MHz				NEXT			ACR			PSNEXT			PSACR			ACRF			PSACRF			RL			TCL		ELTCTL	
	cs	STD	TYP	cs	STD	TYP	cs	STD	TYP	cs	STD	TYP	cs	STD	TYP	cs	STD	TYP	cs	STD	TYP	cs	STD	TYP	cs	STD	cs	STD
1	2	2	1.7	75.3	74.3	85.8	73.3	72.3	84	72.3	72.3	83.8	70.3	70.3	82	68	67.8	78.7	65	64.8	77	20	20	36	40	40	35	35
4	3.8	3.8	3.5	66.3	65.3	78.3	62.5	61.5	74.9	63.3	63.3	76.2	59.5	59.5	72.7	56	55.8	66.8	53	52.8	65.2	23	23	35.6	40	40	23	23
8	5.3	5.3	4.9	61.8	60.8	74.9	56.4	55.4	70	58.8	58.8	72.5	53.4	53.4	67.6	49.9	49.7	60.5	46.9	46.7	59	24.5	24.5	33.1	40	40	16.9	16.9
10	6	6	5.5	60.3	59.3	72.7	54.3	53.3	67.2	57.3	57.3	70.5	51.3	51.3	65	48	47.8	58.9	45	44.8	57.2	25	25	33.8	40	40	15	15
16	7.6	7.6	7	57.2	56.2	70.3	49.7	48.7	63.4	54.2	54.2	68.1	46.7	46.7	61.1	43.9	43.7	54.9	40.9	40.7	53.3	25	25	35.9	38	38	10.9	10.9
20	8.5	8.5	7.8	55.8	54.8	68.8	47.3	46.3	61	52.8	52.8	66.6	44.3	44.3	58.8	42	41.8	52.8	39	38.8	51.3	25	25	35.6	37	37	9	9
25	9.5	9.5	8.7	54.3	53.3	67.3	44.8	43.8	58.5	51.3	51.3	64.9	41.8	41.8	56.2	40	39.8	50.5	37	36.8	49.1	24.3	24.3	35.7	36	36	7	7
31.25	10.7	10.7	9.8	52.9	51.9	65.7	42.2	41.2	55.8	49.9	49.9	63.5	39.2	39.2	53.7	38.1	37.9	48.7	35.1	34.9	47.2	23.6	23.6	34	35.1	35.1		
62.5	15.4	15.4	14	48.4	47.4	62.1	33	32	48.2	45.4	45.4	59.7	30	30	45.8	32.1	31.9	41.8	29.1	28.9	40.5	21.5	21.5	28.4	32	32		
100	19.8	19.8	17.8	45.3	44.3	58.5	25.5	24.5	40.7	42.3	42.3	56.3	22.5	22.5	38.6	28	27.8	38.2	25	24.8	36.6	20.1	20.1	29.7	30	30		
155	25.2	25.2	22.4	42.4	41.4	57.2	17.3	16.3	34.9	39.4	39.4	54	14.3	14.3	31.6	24.2	24	34.2	21.2	21	32.5	18.8	18.8	27.7	28.1	28.1		
200	29	29	25.5	40.8	39.8	54.3	11.8	10.8	28.8	37.8	37.8	52.1	8.8	8.8	26.6	22	21.8	32	19	18.8	30.4	18	18	27.7	27	27		
250	32.8	32.8	28.7	39.3	38.3	53	6.5	5.5	24.4	36.3	36.3	50.8	3.5	3.5	22.1	20	19.8	29.8	17	16.8	28.1	17.3	17.3	27	26	26		

Material Specifications

Conductor Material Bare copper

Insulation Material Polyolefin

Jacket Material Low Smoke Zero Halogen (LSZH)

Separator Material Polyolefin

Mechanical Specifications

Minimum Bend Radius Note 4 times the outer cable diameter

Pulling Tension, maximum 11.34 kg | 25 lb

Transportation Vibration Standard ISTA-1A

Environmental Specifications

Installation temperature $0 \, ^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$ (+32 $^{\circ}\text{F}$ to +140 $^{\circ}\text{F}$)

Operating Temperature $-20 \, ^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$ (-4 $^{\circ}\text{F}$ to +140 $^{\circ}\text{F}$)



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Storage Temperature -20 °C to +80 °C (-4 °F to +176 °F)

Acid Gas Test Method IEC 60754-2

Environmental Space Low Smoke Zero Halogen (LSZH)

Flame Test Method IEC 60332-1
Smoke Test Method IEC 61034-2

Packaging and Weights

Cable weight 38.692 kg/km | 26 lb/kft

Packaging Type Reel in box

Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Below maximum concentration value

REACH-SVHC Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant

