



CS31ZB1 Category 6 U/UTP Cable, low smoke zero halogen, gray jacket, 4 pair count, 1000 ft (305 m) length RIB

## Product Classification

<b>Regional Availability</b>	China
<b>Portfolio</b>	NETCONNECT®
<b>Product Type</b>	Twisted pair cable

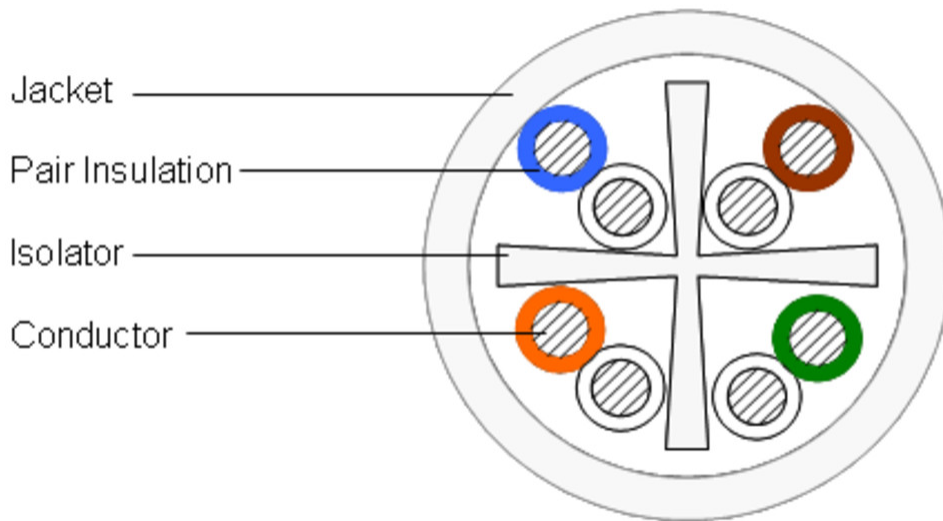
## General Specifications

<b>Product Number</b>	CS31ZB1
<b>ANSI/TIA Category</b>	6
<b>Cable Component Type</b>	Horizontal
<b>Cable Type</b>	U/UTP (unshielded)
<b>Conductor Type, singles</b>	Solid
<b>Conductors, quantity</b>	8
<b>Jacket Color</b>	Gray
<b>Note</b>	All electrical transmission tests include swept frequency measurements
<b>Pairs, quantity</b>	4
<b>Separator Type</b>	Isolator
<b>Supported Application</b>	1000BASE-T   1000BASE-TX   100BASE-TX   10BASE-T   155Mbps ATM   TP-PMD   Token Ring   VoIP
<b>Transmission Standards</b>	ANSI/TIA-568.2-D   CENELEC EN 50288-6-1   IEC 61156-5   ISO/IEC 11801 Class E   YD/T 1019

## Dimensions

<b>Cable Length</b>	304.8 m   1000 ft
<b>Diameter Over Insulated Conductor</b>	0.96 mm   0.038 in
<b>Diameter Over Jacket, nominal</b>	6.096 mm   0.24 in
<b>Jacket Thickness</b>	0.551 mm   0.022 in
<b>Conductor Gauge, singles</b>	23 AWG

## Cross Section Drawing



## Electrical Specifications

<b>Characteristic Impedance</b>	100 ohm
<b>dc Resistance Unbalance, maximum</b>	5 %
<b>dc Resistance, maximum</b>	8 ohms/100 m   2.438 ohms/100 ft
<b>Delay Skew, maximum</b>	45 ns
<b>Dielectric Strength, minimum</b>	1500 Vac   2500 Vdc
<b>Mutual Capacitance at Frequency</b>	5.6 nF/100 m @ 1 kHz
<b>Operating Voltage, maximum</b>	80 V
<b>Propagation Delay, maximum</b>	536 ns/100m @250MHz
<b>Remote Powering</b>	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>NEXT</b>	Near End Crosstalk (dB/100m)
<b>STD</b>	Refers to the standard value listed under Transmission Standards in the Electrical Specifications above	<b>PSNEXT</b>	Power Sum Near End Crosstalk (db/100m)
<b>TYP</b>	Typical Electrical Performance	<b>ACRF</b>	Attenuation to Crosstalk Ratio - Far End (dB/100m)
<b>IL</b>	Insertion Loss (dB/100m)	<b>RL</b>	Return Loss (dB)
<b>ACR</b>	Attenuation to Crosstalk Ratio (dB/100m)	<b>ELTCTL</b>	Equal Level Transverse Conversion Transfer Loss (dB/100m)
<b>PSACR</b>	Power Sum Attenuation to Crosstalk Ratio (dB/100m)		
<b>PSACRF</b>	Power Sum Attenuation to Crosstalk Ratio - Far End (dB/100m)		
<b>TCL</b>	Transverse Conversion Loss (dB/100m)		

Freq. MHz	IL			NEXT			ACR			PSNEXT			PSACR			ACRF			PSACRF			RL		
	CS	STD	TYP	CS	STD	TYP	CS	STD	TYP	CS	STD	TYP	CS	STD	TYP	CS	STD	TYP	CS	STD	TYP	CS	STD	TYP
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
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
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
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
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
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
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
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
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
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
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
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
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
300			31.6			51.5			19.9			49.1			17.5			28.1			26.4			26.9
350			34.3			49.7			15.5			47.6			13.3			26.3			24.5			27.3
400			36.8			48.9			12.1			46.7			10			24.4			22.7			28.1

## Material Specifications

<b>Conductor Material</b>	Bare copper
<b>Insulation Material</b>	Polyolefin
<b>Jacket Material</b>	Low Smoke Zero Halogen (LSZH)
<b>Separator Material</b>	Polyolefin

## Mechanical Specifications

<b>Minimum Bend Radius Note</b>	4 times the outer cable diameter
<b>Pulling Tension, maximum</b>	10.206 kg   22.5 lb

## Environmental Specifications

<b>Installation temperature</b>	0 °C to +60 °C (+32 °F to +140 °F)
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<b>Operating Temperature</b>	-20 °C to +60 °C (-4 °F to +140 °F)
<b>Storage Temperature</b>	-20 °C to +80 °C (-4 °F to +176 °F)
<b>GB 31247 Cable China Class Fire Performance</b>	B1
<b>Environmental Space</b>	Low Smoke Zero Halogen (LSZH)

## Packaging and Weights

<b>Cable weight</b>	47.621 kg/km   32 lb/kft
<b>Packaging Type</b>	Reel in box