

CS31 Category 6 U/UTP Cable, non-plenum, blue jacket, 4 pair count, 1000 ft (305 m) length reel-in-box

## Product Classification

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

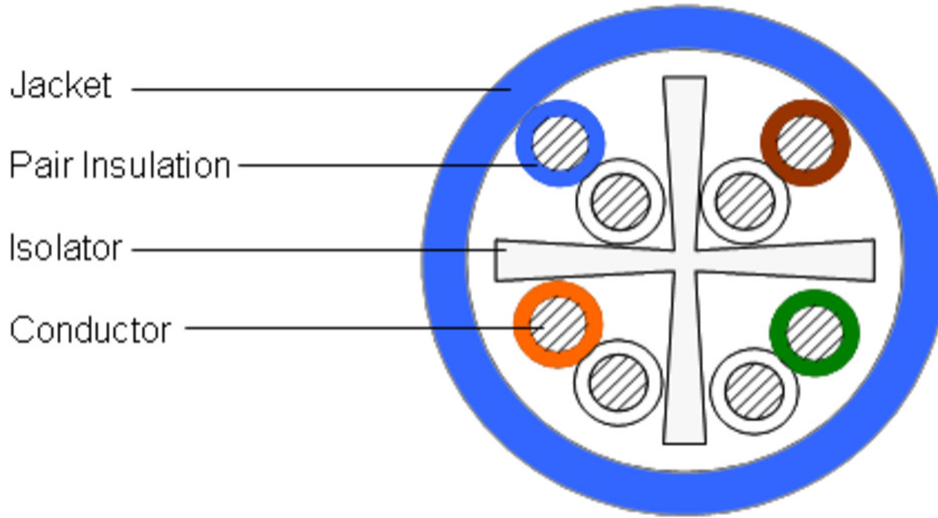
## General Specifications

<b>Product Number</b>	CS31R
<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>	Blue
<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

## Dimensions

<b>Cable Length</b>	304.8 m   1000 ft
<b>Diameter Over Insulated Conductor</b>	1.029 mm   0.041 in
<b>Diameter Over Jacket, nominal</b>	5.842 mm   0.23 in
<b>Jacket Thickness</b>	0.559 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>Nominal Velocity of Propagation (NVP)</b>	68 %
<b>Operating Frequency, maximum</b>	250 MHz
<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		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

<b>Conductor Material</b>	Bare copper
<b>Insulation Material</b>	Polyolefin
<b>Jacket Material</b>	PVC
<b>Separator Material</b>	Polyolefin

## Mechanical Specifications

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

## Environmental Specifications

<b>Installation temperature</b>	0 °C to +60 °C (+32 °F to +140 °F)
<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)

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<b>Environmental Space</b>	Non-plenum
<b>Flame Test Method</b>	CMR   NEC Article 800   UL 1666   UL 444
<b>Packaging and Weights</b>	
<b>Cable weight</b>	38.543 kg/km   25.9 lb/kft
<b>Packaging Type</b>	CommPak® box

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant

