ETL Verified Category 5e U/UTP Cable, non-plenum, black jacket, 4 pair count, 1000 ft (305 m) length, CommPak



#### **Product Classification**

Regional Availability

Asia | Australia/New Zealand | Latin America | North America

Portfolio CommScope®

Product Type Twisted pair cable

General Specifications

Product Number CS27R

ANSI/TIA Category 5e

Cable Component Type Horizontal

Cable Type U/UTP (unshielded)

Conductor Type, singlesSolidConductors, quantity8

Jacket Color Black

Note All electrical transmission tests include swept frequency measurements

Pairs, quantity 4

Transmission Standards ANSI/TIA-568.2-D | CENELEC EN 50288-3-1 | ISO/IEC 11801 Class D

**Dimensions** 

 Cable Length
 304.8 m | 1000 ft

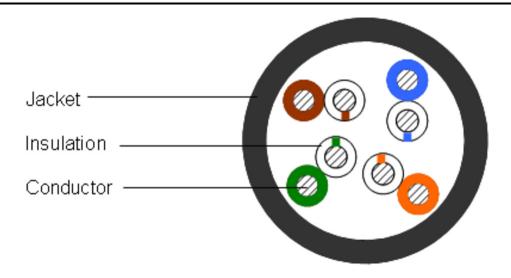
 Diameter Over Jacket, nominal
 4.953 mm | 0.195 in

 Jacket Thickness
 0.508 mm | 0.02 in

Conductor Gauge, singles 24 AWG

Cross Section Drawing





#### **Electrical Specifications**

Characteristic Impedance 100 ohm

dc Resistance Unbalance, maximum 5 %

**dc Resistance, maximum** 9.38 ohms/100 m | 2.859 ohms/100 ft

**Delay Skew, maximum** 15 ns

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

Nominal Velocity of Propagation (NVP) 69 %

Operating Frequency, maximum 350 MHz

Operating Voltage, maximum 80 V

**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

Safety Voltage Rating 300 V



#### Flectrical 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	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	1.8	70.3	65.3	85	68.3	63.3	83.1	68.3	62.3	82.6	66.3	60.3	80.8	67.8	63.8	79.8	65.8	60.8	78	20	20	34.8
4	3.9	4.1	3.7	61.3	56.3	75.9	57.3	52.2	72.2	59.3	53.3	73.4	55.3	49.2	69.7	55.8	51.8	68.1	53.8	48.8	66.3	23	23	35.1
8	5.6	5.8	5.3	56.8	51.8	70.8	51.2	46	65.6	54.8	48.8	68.5	49.2	43	63.3	49.7	45.7	62.2	47.7	42.7	60.5	25	24.5	35.9
10	6.2	6.5	5.9	55.3	50.3	69.7	49.1	43.8	63.8	53.3	47.3	67.4	47.1	40.8	61.5	47.8	43.8	60.3	45.8	40.8	58.5	25.5	25	36.8
16	7.9	8.2	7.6	52.2	47.2	66.3	44.3	39	58.7	50.2	44.2	64	42.3	36	56.4	43.7	39.7	56.3	41.7	36.7	54.5	25.5	25	37.9
20	8.9	9.3	8.5	50.8	45.8	64.8	41.9	36.5	56.3	48.8	42.8	62.4	39.9	33.5	53.9	41.8	37.8	54.4	39.8	34.8	52.5	25.5	25	37.6
25	10	10.4	9.5	49.3	44.3	63.3	39.3	33.9	53.8	47.3	41.3	61	37.3	30.9	51.5	39.8	35.8	52.5	37.8	32.8	50.6	24.8	24.3	37.9
31.25	11.3	11.7	10.7	47.9	42.9	61.8	36.6	31.2	51.2	45.9	39.9	59.5	34.6	28.2	48.9	37.9	33.9	50.5	35.9	30.9	48.6	24.1	23.6	37.7
62.5	16.3	17	15.3	43.4	38.4	57.3	27.1	21.4	42	41.4	35.4	55.1	25.1	18.4	39.7	31.9	27.9	44.4	29.9	24.9	42.5	22	21.5	33.5
100	21	22	19.6	40.3	35.3	54.5	19.3	13.3	34.9	38.3	32.3	52.1	17.3	10.3	32.5	27.8	23.8	40.4	25.8	20.8	38.4	20.6	20.1	31
155	26.8		24.8	37.4		51.2	10.7		26.4	35.4		49	8.7		24.1	24		36.7	22		34.7	19.3		28.9
200	30.9		28.4	35.8		48.9	4.9		20.4	33.8		46.6	2.9		18.2	21.8		34.2	19.8		32.2	18.5		28.6
250	35		32	34.3		47.4	-0.7		15.4	32.3		45.1	-2.7		13.1	19.8		32	17.8		30	17.8		28
300	38.9		35.3	33.1		45.8	-5.8		10.5	31.1		43.5	-7.8		8.2	18.3		30.1	16.3		28.2	17.3		28.1
350	42.6		38.4	32.1		44.1	-10.4		5.7	30.1		41.9	-12.4		3.5	16.9		28.4	14.9		26.5	16.8		27.4

### Material Specifications

Conductor MaterialBare copperInsulation MaterialPolyolefin

Jacket Material PVC

Mechanical Specifications

**Pulling Tension, maximum** 11.34 kg | 25 lb

#### **Environmental Specifications**

Installation temperature  $0 \, ^{\circ}\text{C} \text{ to } +60 \, ^{\circ}\text{C} \text{ (+32 } ^{\circ}\text{F to } +140 \, ^{\circ}\text{F)}$ Operating Temperature  $-20 \, ^{\circ}\text{C} \text{ to } +60 \, ^{\circ}\text{C} \text{ (-4 } ^{\circ}\text{F to } +140 \, ^{\circ}\text{F)}$ 

**Environmental Space** Non-plenum

Flame Test Method CMR | NEC Article 800 | UL 1666 | UL 444

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Packaging and Weights

**Cable weight** 27.977 kg/km | 18.8 lb/kft

Packaging Type CommPak® box

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

