

## 7987R Multi-Conductor - 4-Pair UTP Cable for RGB Video



### Description:

NanoSkew™ 24 AWG twisted pairs solid bare copper conductors, non-plenum, polyolefin insulation, skew 2.2ns/100m nominal, rip cord, PVC jacket.

### Usage (Overall)

**Suitable Applications:** Zero Skew, Low Skew, RJ45, UTP Based Video Applications, Not for data transmission requiring TIA/EIA Category qualifications, RGB

### Physical Characteristics (Overall)

#### Conductor

**AWG:**

# Pairs	AWG	Stranding	Conductor Material
4	24	Solid	BC - Bare Copper

#### Insulation

**Insulation Material:**

Insulation Material
PO - Polyolefin

#### Outer Shield

**Outer Shield Material:**

Outer Shield Material
Unshielded

#### Outer Jacket

**Outer Jacket Material:**

Outer Jacket Material
PVC - Polyvinyl Chloride

**Outer Jacket Ripcord:** Yes

#### Overall Cabling

**Overall Nominal Diameter:** 0.195 in.

#### Pair

**Pair Color Code Chart:**

Number	Color
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

### Mechanical Characteristics (Overall)

**Operating Temperature Range:** -20°C To +75°C

**Bulk Cable Weight:** 31 lbs/1000 ft.

**Max. Recommended Pulling Tension:** 40 lbs.

**Min. Bend Radius (Install)/Minor Axis:** 0.200 in.

## 7987R Multi-Conductor - 4-Pair UTP Cable for RGB Video

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

EU CE Mark: No

EU Directive 2000/53/EC (ELV): Yes

EU Directive 2002/95/EC (RoHS): Yes

EU RoHS Compliance Date (mm/dd/yyyy): 01/01/2005

EU Directive 2002/96/EC (WEEE): Yes

EU Directive 2003/11/EC (BFR): Yes

CA Prop 65 (CJ for Wire & Cable): Yes

MII Order #39 (China RoHS): Yes

#### Flame Test

UL Flame Test: UL1666 Riser

#### Plenum/Non-Plenum

Plenum (Y/N): No

Plenum Number: 7987P

### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

Impedance (Ohm)

100

#### Nominal Velocity of Propagation:

VP (%)

70

#### Typical Delay Skew:

Delay Skew (ns/ft)

2.2

#### Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

9

#### Max. Operating Voltage - UL:

Voltage

300 V RMS

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7987R 059U1000	1,000 FT	20.000 LB	MAROON		4 PR #24 PP PVC
7987R 059U1640	1,640 FT	32.800 LB	MAROON		4 PR #24 PP PVC

# RJ-45 Cables for Audio and Video Applications

## 4-Pair UTP Cables for RGB Video

### NanoSkew™ Non-Data and Brilliance VideoTwist® Low-Skew Data Rated Types



For economy, some system designers seek to use UTP (unshielded twisted pair) cable for video applications. However, Digital Video and Digital Data are processed and viewed differently. Digital Video contains much more information, requiring more bandwidth than Ethernet data. In addition, video has to be streaming — viewable live and continuously — whereas data can be sent in packets, resent as necessary, and given time to recompile. Such delays are unacceptable in video. Be cautious, digital signals are not all the same thing!

Delay Skew should be kept to a minimum for component video and RGB applications for better picture quality and the ability to transmit over longer distances. Delay skew is the difference in the time of arrival of the components transmitted over different cable components — pairs in the case of UTP. Skew is inherent in all cables, but especially in UTP cables because the pairs are normally

twisted to differing degrees for Ethernet data purposes, specifically to reduce crosstalk. Obviously picture clarity is lost when the red, green, and blue components arrive out of time with each other, and varying twist rates cause exactly that to occur.

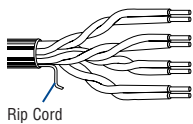
Cables in this section are NanoSkew, a UTP cable with no Ethernet data rating (all pairs have the same twist rate), and Brilliance VideoTwist Cat 5e and Cat 6 rated cables with lower, carefully monitored skew relative to standard data cables. Cables designed only for data applications meet their own skew requirements, but those are too high for better video transmission, and may be varied by manufacturers without notice. For guaranteed low and consistent skew performance from UTP cables, only NanoSkew or VideoTwist should be used. The Cat 5e and Cat 6 rated versions are ideal for KVM and blade-edge computer applications.

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Max. DCR (Ω/100m)	Nom. Imped. (Ω)	Min. RL (dB)	Freq. (MHz)	Max. Atten. (dB/100m)
				Ft.	m	Lbs.	kg	Inch	mm					

**Nanoskew™ 24 AWG** Solid BC Conductors • Twisted Pairs • Skew 2.2ns/100m nom. • Rip cord • See Color Code Chart (below)

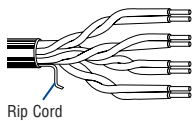
**Non-Plenum • Polyolefin Insulation • Maroon PVC Jacket**

300V RMS	<b>7987R</b> <small>new</small>	NEC: CMR CEC: CMG	4	U-1000 U-1640	U-304.8 U-500.0	20.0 32.8	9.1 14.9	.195	4.95	9.0	100	15.0	1	2.0
													4	4.1
													8	5.8
													10	6.5
													16	8.2
													20	9.3
													25	10.4
													31.25	11.7
													62.5	17.0
													100	22.0
													155	28.1
													200	32.0
													250*	36.4
													350*	44.8



**Plenum • FEP Insulation • Maroon Flamarrest® PVC Jacket**

300V RMS	<b>7987P</b> <small>new</small>	NEC: CMP CEC: CMP	4	U-1000 U-1640	U-304.8 U-500.0	22.0 36.1	10.0 16.4	.200	5.08	9.0	100	15.0	(same as above)	
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Third party verified to TIA/EIA-568-B.2, Category 5e

BC = Bare Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • RL = Return Loss • UTP = Unshielded Twisted Pair(s)

\*Values provided for information only.

**Color Codes: DataTwist 5e**

Pair No.	Color Combination
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown