

# 10G RD™

TM

Copper

## HITACHI Inspire the Next

### Product Highlights

- REACH & RoHS 2 compliant.
- Made in USA.
- UL Verified.
- Low Smoke Plenum construction.
- Tested from 1 to 500 MHz.
- 6A compliant single cable up to TIA Standard maximum 100m (channel).
- Guaranteed 10 gigabit Ethernet support to 100m (channel).
- Exceeds alien crosstalk requirements for 10 Gigabit Ethernet.
- Standard construction is installation and termination friendly.
- Reduced diameter enables higher fill rates in conduit and trays.
- Supports up to 100 watts of power.

### Packaging

- 1,000 foot (305m) reels

### Applications

- Including:
  - HDBase-T
  - 10GBASE-T 10 Gigabit Ethernet
  - 1000BASE-T Gigabit Ethernet
  - 1000 Mbps ATM
  - 622 Mbps ATM
  - 100BASE-T Ethernet
  - Broadband Video
  - POE
  - POE+

Note: If terminating with a plug for HDBaseT use, suggested plug is Metz Connect P/N 130E405032-E.

### Temp Range

- Storage Temperature  
-40C to +60C (-40F to +140F)
- Installation Temperature  
0C to +60C (+32F to +140F)
- Operation Temperature  
-20C to +75C (-4F to +167F)

## 10G RD™ (Plenum)

(cUL)us Listed Type CMP, CSA Type FT6)

HITACHI PART NO.	NO. OF PAIRS	CALCULATED CABLE O.D. in.	mm	CABLE WEIGHT lbs/1000ft	kg/305m
30263-8-XXY	4	.29	7.36	43.6	19.78

## 10G RD™ (Riser)

(cUL)us Listed Type CMR, CSA Type FT4)

HITACHI PART NO.	NO. OF PAIRS	CALCULATED CABLE O.D. in.	mm	CABLE WEIGHT lbs/1000ft	kg/305m
30265-8-XXY	4	.29	7.36	37.1	16.83

### Building a Part Number

Base Part Number Ex.	No. of Conductors	Jacket Color	Reel Type
30263	8	XX	Y

Jacket Colors (XX):

Black(BK); Blue(BL); Brown(BR); Gray(GA); Green(GR); Red(RD); White(WH); Yellow(YE)

Reel Type (Y):

Reels(3);

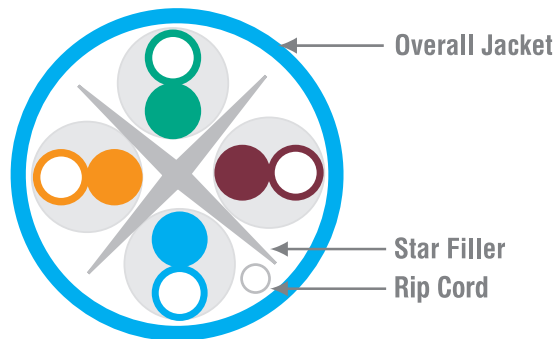
## Features

Primary Insulation



23 AWG  
Bare Copper

### PAIR DETAIL

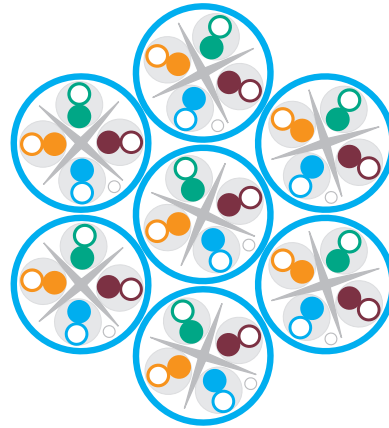


DIELECTRIC MATERIALS	RISER	PLENUM
Primary Insulation	Polyolefin	Plenum-rated fluoropolymer
Overall Jacket	Flame-retardant thermoplastic	Low-smoke, flame-retardant thermoplastic
Star Filler	Flame-retardant thermoplastic	Plenum-rated polymer

## Electrical Characteristics

Input Impedance	100 ± 15Ω (1.0 to 100 MHz) 100 ± 20Ω (100 to 250 MHz) 100 ± 25Ω (251 to 500 MHz)
Maximum conductor resistance	9.38 Ω/100 meters @ 20C
Maximum resistance unbalance	3%
Maximum capacitance unbalance	330 pF/100 meters
Maximum delay skew	45 ns/100 meters
Nominal velocity of propagation (NVP)	riser, 68% plenum, 71%
Voltage Rating	300 Volts
Ampacity <sup>1</sup>	.5 Amps/conductor

Unique core design permits cables to be installed alongside other cables while still providing guaranteed 10 gigabit throughput. Graphic at right illustrates six-around-one, or worst case alien crosstalk scenario.



## Transmission Specifications

ANSI/TIA 568-C.2 Category 6 Verified. Category 6A Compliant Single Cable.

Alien crosstalk performance compliant per ACMC.

### Single Cable Performance

### Alien Crosstalk Performance\*

Freq. (MHz)	Ins. Loss	NEXT	PS NEXT	ACR	PSACR	ACRF	PS ACRF	Return Loss	PSANEXT	PSAACRF
	Max	Min	Min	Min	Min	Min	Min	Min	Min	Min
1	2.1	74.3	72.3	72.2	70.2	67.8	64.8	20.0	67.0	62.0
4	3.8	65.3	63.3	61.5	59.5	55.8	52.8	23.0	66.3	50.2
8	5.3	60.8	58.8	55.4	53.4	49.7	46.7	24.5	63.3	44.2
10	5.9	59.3	57.3	53.4	51.4	47.8	44.8	25.0	62.3	42.2
16	7.5	56.2	54.2	48.8	46.8	43.7	40.7	25.0	60.3	38.1
20	8.4	54.8	52.8	46.4	44.4	41.8	38.8	25.0	59.3	36.2
25	9.4	53.3	51.3	44.0	42.0	39.8	36.8	24.3	58.3	35.3
31.25	10.5	51.9	49.9	41.4	39.4	37.9	34.9	23.6	57.3	32.3
62.5	15.0	47.4	45.4	32.4	30.4	31.9	28.9	21.5	54.3	26.3
100	19.1	44.3	42.3	25.2	23.2	27.8	24.8	20.1	52.3	22.2
200	27.6	39.8	37.8	12.2	10.2	21.8	18.8	18.0	49.3	18.3
250	31.1	38.3	36.3	7.3	5.3	19.8	16.8	17.3	46.3	14.3
300	34.3	37.1	35.1	2.9	0.9	18.3	15.3	16.8	44.2	12.1
400	40.1	35.3	33.3	-	-	15.8	12.8	15.9	42.5	10.5
500	45.3	33.8	31.8	-	-	13.8	10.8	15.2	41.8	8.2

\*Performance values for alien crosstalk guaranteed in channel configurations up to 100 meters. Alien Crosstalk Mathematical Calculation (ACMC) based on TSB-155.

1. Ampacity rating per NEC 725.144 of NFPA NEC (2017) up to 192 cable bundle.