

# GenSPEED® 10 MTP™ Small Diameter Category 6A Cable

The Industry's Smallest Full Channel 6A Cable

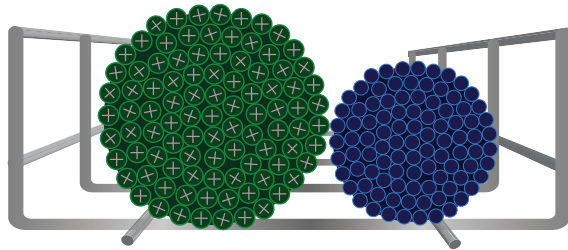
GenSPEED®

## Record-Breaking Cat 6A Cables with Superior Alien Crosstalk Protection and EMI Immunity

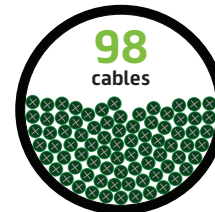


GenSPEED 10MTP is the world's first Category 6A Cable to feature a record-breaking 0.230" overall diameter with guaranteed performance that meets or exceeds all TIA standards, providing industry-leading alien crosstalk protection and EMI Immunity. Without needing to be grounded, GenSPEED 10 MTP's Mosaic Variable Laser Cut Tape shields the cable from noise coming from external cable sources (PSANEXT and PSAACRF). Its improved design, reduced diameter, lighter weight and increased flexibility translates to simplified cable handling and optimized cable management: less conduit, less cable tray and more cable in existing conduit and trays which lowers overall project costs.

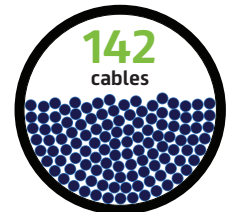
- Innovative design provides guaranteed performance using the world's smallest fully compliant Cat 6A cable.
- Smaller cable diameter allows for greater cable density, reducing cable management costs.
- Simplified design and improved bend radius make it easier to strip, terminate and route, reducing installation time and expense.
- Utilizes innovative Mosaic™ Variable Laser Cut Tape to provide superior protection against alien crosstalk. Random laser cut pattern delivers maximum protection against EMI noise interference.
- UL Listed CMP-LP 0.7A with certified performance for high power PoE applications up to 140 W. UL verified with certified performance for 100W power over HDBaseT.



First Cat 6A to feature 0.230" OD allowing for easier installation and increased cabling fill capacity: less cable tray and more cable in existing trays, which lowers overall costs.



4 inch conduit with 0.275" OD cable



4 inch conduit with GenSPEED 10 0.230" OD cable

Reduced diameter translates to simplified cable management: GenSPEED 10 is the only cable to allow up to 142 cables in a 4 in. conduit vs. 98 cables.

Cable OD	TRAY SIZE		
	4" x 6"	4" x 12"	4" x 18"
0.230	288	577	865
0.250	240	484	728
0.275	198	400	602
0.300	167	336	506

Cable OD	CONDUIT SIZE		
	3/4"	1"	4"
0.230	5	8	142
0.250	4	7	119
0.275	3	5	98
0.300	2	4	80

## APPLICATIONS

- IEEE 802.3: 10G BASE-T, 1000 BASE-T, 100 BASE-TX, 10 BASE-T, PoE, PoE+ and PoE++
- ANSI/TIA 854: 1000 BASE-TX
- Digital Video
- Broadband and Baseband Analog Video
- CDDI, Token Ring, ATM

## STANDARD COMPLIANCES

- ANSI/TIA 568.2-D
- NEC/CEC Type CMP (NFPA 262) for Plenum
- UL Listed CMP-LP 0.7A\*
- UL 444
- UL 4299
- RoHS Compliant Directive 2011/65/EU
- ANSI/TIA 862 (Building Automation)
- ICEA S-116-732
- ISO/IEC 11801 Ed. 2.0 (Class E<sub>x</sub>)

\*0.7A is the ampacity rating of the cable, which equals to 140 watts using 50 volts over four pairs.



FEATURING

**MOSAIC**  
VARIABLE LASER CUT TAPE



## CONSTRUCTION

### Conductors

- 23 AWG solid bare annealed copper

### Insulation

- Plenum: Fluoropolymer

### Color Code

- Pair 1: Blue-White
- Pair 2: Orange-White
- Pair 3: Green-White
- Pair 4: Brown-White

### ANEXT Protection:

- Mosaic™ Variable Laser Cut Tape

### Jacket

- Plenum: Low-Smoke, Flame-Retardant PVC

## PART NUMBERS

Jacket Color	CMP (Plenum)	
	Spool	
Blue	<b>7151849</b>	
White	<b>7151850</b>	
Gray	<b>7151851</b>	
Yellow	<b>7151852</b>	
Green	<b>7151853</b>	
Red	<b>7151854</b>	
Purple	<b>7151855</b>	
Orange	<b>7151856</b>	
Pink	<b>7151857</b>	
Black	<b>7151858</b>	

Non-stock items may be subject to minimum order quantities.

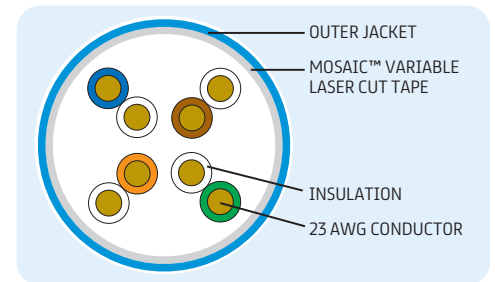
## PHYSICAL DATA

	CMP
Nominal Cable Diameter (in)	0.230
Nominal Cable Weight (lbs/1000 ft)	30
Minimum Bend Radius (in)	1
Maximum Pulling Force (lbs)	40
Temperature Rating (°C)	
Installation:	0 to +60
Operation:	-20 to +105

## ELECTRICAL CHARACTERISTICS

	Max.	Nom.
<b>DC Resistance</b> Ohms/100 m (328 ft) @ 20°C	9.38	7.00
<b>DC Resistance Unbalanced</b> Individual Pair %	4.00	<1
<b>Delay Skew (Max)</b> ns/100 m	45	
<b>Nom. Velocity of Propagation</b> % Speed of Light	70	
<b>Characteristic Impedance</b> Frequency (f): 1-500 MHz	Ohms 100 ± 15	

## CROSS-SECTION



## ELECTRICAL PERFORMANCE

Frequency MHz	PSACR* (min)	ACR* (min)	Insertion Loss (min)	PSNEXT (min)	NEXT (min)	PSACRF (min)	ACRF (min)	Return Loss (min)	TCL (min)	PSANEXT (min)		PSAACRF (min)			
	General Cable Guaranteed	General Cable Guaranteed	TIA Guaranteed	TIA Guaranteed	TIA Guaranteed	TIA Guaranteed	TIA Guaranteed	TIA Guaranteed	TIA Guaranteed	TIA Guaranteed	General Cable Guaranteed	General Cable Typical	TIA Guaranteed	General Cable Guaranteed	General Cable Typical
1	70.2	72.2	2.1	72.3	74.3	64.8	67.8	20.0	40.0	67.0	75.0	79.0	67.0	75.0	79.0
4	59.5	61.5	3.8	63.3	65.3	52.8	55.8	23.0	40.0	67.0	75.0	79.0	66.2	74.4	78.2
10	51.4	53.4	5.9	57.3	59.3	44.8	47.8	25.0	40.0	67.0	75.0	79.0	58.2	66.2	70.2
16	46.8	48.8	7.5	54.2	56.2	40.7	43.7	25.0	38.0	67.0	75.0	79.0	54.1	62.1	66.1
20	44.4	46.4	8.4	52.8	54.8	38.8	41.8	25.0	37.0	67.0	75.0	79.0	52.2	60.2	64.2
31.25	39.4	41.4	10.5	49.9	51.9	34.9	37.9	23.6	35.1	67.0	75.0	79.0	48.3	56.3	60.3
62.5	30.4	32.4	15.0	45.4	47.4	28.9	31.9	21.5	32.0	65.6	73.6	77.6	42.3	50.3	54.3
100	23.2	25.2	19.1	42.3	44.3	24.8	27.8	20.1	30.0	62.5	70.5	74.5	38.2	46.2	50.2
150	16.0	18.0	23.7	39.7	41.7	21.3	24.3	18.9	28.2	59.9	67.9	71.9	34.7	42.7	46.7
200	10.2	12.2	27.6	37.8	39.8	18.8	21.8	18.0	27.0	58.0	66.0	70.0	32.2	40.2	44.2
250	5.2	7.2	31.1	36.3	38.3	16.8	19.8	17.3	26.0	56.5	64.5	68.5	30.2	38.2	42.2
300	0.9	2.9	34.3	35.1	37.1	15.3	18.3	16.8	25.2	55.3	63.3	67.3	28.7	36.7	40.7
400	—	—	40.1	33.3	35.3	12.8	15.8	15.9	24.0	53.5	61.5	65.5	26.2	34.2	38.2
500	—	—	45.3	31.8	33.8	10.8	13.8	15.2	23.0	52.0	60.0	64.0	24.2	32.2	36.2

Note: Values are expressed in dB per 100 m (328 ft.) length @ 20°C.

\*PSACR & ACR not specified in ANSI/TIA 568.2-D



Feedback

Need help?

# 760234859 | 2091SD BLU C6A 4/23 U/UTP R1000

Base Product: **2091SD**

Available in: Asia | Australia/New Zealand | EMEA | Latin America | North America

GigaSPEED X10D® 2091SD ETL Verified Category 6A U/UTP Cable, plenum, blue jacket, 4 pair count, 1000 ft (305 m) length, reel

## Specifications

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## Features and Benefits

- Ideal solution where space is a concern – 0.265" outer diameter maximum utilizing a specially designed non-conductive tape around the 4 pairs
- Part of the SYSTIMAX GigaSPEED X10D family of products
- Meets and exceeds performance specifications for all channel configurations currently supported by the GigaSPEED X10D system

## Specifications

### Product Classification

Regional Availability	Asia   Australia/New Zealand   EMEA   Latin America   North America
Portfolio	SYSTIMAX®
Product Type	Twisted pair cable
Product Brand	GigaSPEED X10D®

### General Specifications

Product Number	2091SD
ANSI/TIA Category	6A
Cable Component Type	Horizontal
Cable Type	U/UTP (unshielded)

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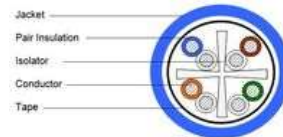
Note	Consult ANSI/TIA-568-C.2 Annex G for length de-rating guidance for cable installation in higher temperature environments
Pairs, quantity	4
Separator Type	Isolator
Transmission Standards	ANSI/TIA-568.2-D

## Dimensions

Cable Length	304.8 m   1000 ft
Diameter Over Conductor	1.115 mm   0.0439 in
Diameter Over Jacket, nominal	6.731 mm   0.265 in
Jacket Thickness	0.406 mm   0.016 in
Conductor Gauge, singles	23 AWG

## Cross Section Drawing

Click on image to enlarge.



## Electrical Specifications

dc Resistance Unbalance, maximum	4 %
dc Resistance, maximum	8 ohms/100 m   2.438 ohms/100 ft
Dielectric Strength, minimum	1500 Vac   2500 Vdc

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Operating Frequency, maximum	500 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

## Material Specifications

Conductor Material	Bare copper
Insulation Material	FEP
Jacket Material	PVC
Separator Material	FEP
Tape Material	Poly/Aluminum/Poly

## Mechanical Specifications

Pulling Tension, maximum	11.34 kg   25 lb
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## Environmental Specifications



Installation temperature	0 °C to +60 °C (+32 °F to +140 °F)
Operating Temperature	-20 °C to +75 °C (-4 °F to +167 °F)
Environmental Space	Plenum
Temperature Rating, UL	105 °C   221 °F
Flame Test Method	CMP/FT6

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Packaging Type	Reel
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### Regulatory Compliance/Certifications


Agency	Classification
ISO 9001:2015 	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant
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>

### Specifications



### Product Support

 [Customer and Technical Support, Software/Firmware, Repair Services](#)

 [Technical Training for CommScope](#)

### Product Support



### Documentation & Downloads

#### 3rd Party Certification - Component

 [2091SD\\_U-UTP\\_CMP](#)

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## Product Compliance Documentation

 [Statement of Compliance RoHS/REACH](#)


## Product Specification


 [760234859 Product specifications](#)

## Technical Publication

 [Use of SYSTIMAX cabling for PoE applications](#)

## Warranty

 [CommScope Extended System Warranty](#)

 [CommScope Limited Product Warranty](#)

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## Documentation & Downloads

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# Berk-Tek LANmark-SST Reduced Diameter UTP Plenum Category 6A



LANmark-SST's reduced diameter (0.250" CMP vs. 0.275" for average Cat 6A cable) offers better flexibility, optimized cable management, and improved tray-fill ratio for high-density installations.

## DESCRIPTION

LANmark™-SST is the smallest diameter, highest-performing Cat 6A cable. It offers outstanding signal isolation, excellent high-PoE performance and Alien Crosstalk performance that exceeds the standard, making it an excellent choice for high-power, high-bandwidth applications like 802.11ac wireless, HD video and IP security.

Its specially designed insulated metallic isolation wrap provides superior heat management and noise-cancelling performance preventing electrical energy from running along the shield, eliminating the need for grounding.

LANmark-SST's reduced diameter (0.250" CMP vs. 0.275" for average Cat 6A cable) offers better flexibility, optimized cable management, and improved tray-fill ratio for high-density installations.

Based on Berk-Tek's advanced testing, LANmark-SST has a Universal Application Score (UA Score) of 8.6 and is a great choice for high bandwidth requirements with excellent PoE performance and the superior choice for HD Video and 802.11ac wireless.

### Construction:

Bare copper wire insulated with FEP. Two primaries are twisted together to form a pair and four such pairs are cabled together with a central filler to form the basic unit. The cable core is surrounded by an insulated metallic isolation wrap and jacketed with flame-retardant polymer alloy.

### Flame Rating:

Plenum-NFPA 70, CMP  
ETL Listed as CMP-LP (0.7A)

### Reduced Diameter Benefits:

- Reduced cable size of 0.250" which is up to 9% nominal reduction versus the industry average of 0.275"
- Supports high-density applications and installations
- Improved pathway space and fill rations - 20% increase in number of cables per tray versus average 0.275" size cable
- Small diameter provides better operational airflow and cooling in congested pathways such as a data center environment
- Smaller size allows for a smaller bend radius in tight spaces and improved cable management
- Reduced cable weight causes less strain on pathways and improves ease of installation

### Environmental Features:

- Health Product Declaration
- Product Environmental Profile

*Perform Beyond Expectations, choose Berk-Tek.*

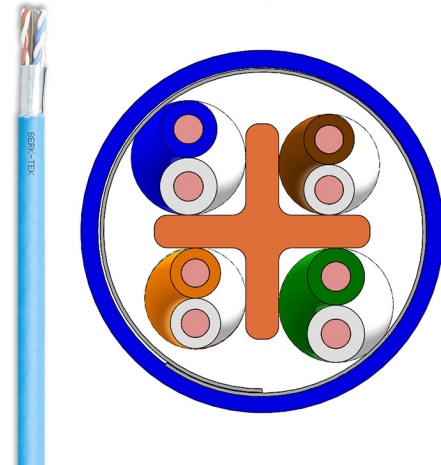
## PROUDLY MADE IN THE USA

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SS2028-BTv2 - Released April 2021

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### NETWORK SOLUTIONS HEADQUARTERS

Bothell, WA, USA | [leviton.com/ns](http://leviton.com/ns)  
(800) 824 3005 / +1 (425) 486 2222 | [appeng@leviton.com](mailto:appeng@leviton.com)



## STANDARDS

National ANSI/TIA 568.2-D;  
CSA C22.2 N° 214-02; UL 444

**BERK-TEK A LEVITON COMPANY**  
New Holland, PA, USA | [leviton.com/berktek](http://leviton.com/berktek)  
+1 (717) 354 6200 | [berktek.support@leviton.com](mailto:berktek.support@leviton.com)

# Berk-Tek LANmark-SST Reduced Diameter UTP Plenum Category 6A

## CHARACTERISTICS



### Dimensional characteristics



Length per reel	1000.0 ft
Number of pairs	4

### Usage characteristics

Category	Cat. 6A
Fire safety	CMP - Plenum Rated
Recommended operating temperature range	-20 .. 105 °C

## PRODUCT LIST

Part Number	Description	Colour	Packaging	Field of application
 11101842 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Blue	Reel	Indoor
 11140408 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Orange	Reel	Indoor
 11140403 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Yellow	Reel	Indoor
 11140405 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Red	Reel	Indoor
 11140402 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Dark grey	Reel	Indoor
 11140404 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Green	Reel	Indoor
 11140406 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Black	Reel	Indoor
 11140407 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Violet	Reel	Indoor
 11140401 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	White	Reel	Indoor
 11140627 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Blue	Reel in a box	Indoor
 11140635 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Orange	Reel in a box	Indoor
 11140630 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Yellow	Reel in a box	Indoor
 11140632 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Red	Reel in a box	Indoor
 11140629 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Dark grey	Reel in a box	Indoor
 11140631 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Green	Reel in a box	Indoor
 11140633 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Black	Reel in a box	Indoor
 11140634 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	Violet	Reel in a box	Indoor
 11140628 New	LANmark-SST Reduced Diameter UTP Plenum Category 6A	White	Reel in a box	Indoor

 = Make to order,  = In stock

# Berk-Tek LANmark-SST Reduced Diameter UTP Plenum Category 6A



## LANMARK-SST PLENUM - TECHNICAL INFORMATION

### Electrical Characteristics

FQ = Frequency (MHz) / TIA = TIA Spec / PG = Product Guarantee

FQ	RL (dB)		NEXT (dB)		PSNEXT (dB)		ACRF (dB)		PSANEXT (dB)		LCL/TCL
	TIA	PG	TIA	PG	TIA	PG	TIA	PG	TIA	PG	PG
1	20.00	20.00	74.30	74.30	72.30	72.30	67.80	71.80	67.00	77.00	50.00
4	23.00	23.00	65.30	65.30	63.30	63.30	55.80	59.80	67.00	77.00	44.0
10	25.00	25.00	59.30	59.30	57.30	57.30	47.80	51.80	67.00	77.00	40.00
16	25.00	25.00	56.20	56.30	54.20	54.30	43.70	47.70	67.00	77.00	38.00
20	25.00	25.00	54.80	54.80	52.80	52.80	41.80	45.80	67.00	77.00	37.00
31.25	23.60	23.60	51.90	51.90	49.90	49.90	37.90	41.90	67.00	77.00	35.10
62.5	21.50	21.50	47.40	47.40	45.40	45.40	31.90	35.90	65.60	76.60	32.00
100	20.10	20.10	44.30	44.30	42.30	42.30	27.80	31.80	62.50	72.50	30.00
250	17.30	17.30	38.30	38.30	36.30	36.30	19.80	23.80	56.50	66.50	26.00
350	16.30	16.30	36.10	36.20	34.10	34.20	16.90	20.90	—	64.30	24.60
400	15.90	15.90	35.30	35.30	33.30	33.30	15.80	19.80	53.50	63.50	23.40
500	15.20	15.20	33.80	33.80	31.80	31.80	13.80	17.80	52.00	62.00	23.00
600	—	14.70*	—	32.60*	—	30.60*	—	16.20*	—	60.80*	22.20*
750	—	14.00*	—	31.20*	—	29.20*	—	14.30*	—	59.40*	21.20*

FQ	IL (dB/100 m)		ACR (dB/100 m)		PSACR (dB/100 m)		PSACRF (dB/100 m)		PSAACRF (dB)		EL TCTL
	TIA	PG	TIA	PG	TIA	PG	TIA	PG	TIA	PG	PG
1	2.10	2.10	72.20	72.20	70.20	70.20	64.80	68.80	67.00	77.00	35.00
4	3.80	3.80	61.50	61.50	59.50	59.50	52.80	56.70	66.20	76.20	23.00
10	5.90	5.90	53.40	53.40	51.40	51.40	44.80	48.80	58.20	68.20	15.00
16	7.50	7.50	48.80	48.80	46.80	46.80	40.70	44.70	54.10	64.10	10.90
20	8.40	8.40	46.40	46.40	44.40	44.40	38.80	42.80	52.20	62.20	9.00
31.25	10.50	10.50	41.40	41.40	39.40	39.40	34.90	38.90	48.30	58.30	—
62.50	15.00	15.00	32.40	32.40	30.40	30.40	28.90	32.80	42.30	52.30	—
100	19.10	19.10	25.20	25.20	23.20	23.20	24.80	28.80	38.20	48.20	—
250	31.10	31.10	7.30	7.30	5.30	5.30	16.80	20.80	30.20	40.20	—
350	37.20	37.20	-1.10	-1.10	-3.10	-3.10	13.90	17.90	—	37.30	—
400	40.10	40.10	-4.80	-4.80	-6.80	-6.80	12.80	16.70	26.20	36.20	—
500	45.30	45.30	-11.40	-11.40	-13.40	-13.40	10.80	14.80	24.20	34.20	—
600	—	50.10*	—	—	—	—	—	13.20*	—	32.60*	—
750	—	56.70*	—	—	—	—	—	11.30*	—	30.70*	—

\*Values provided for reference only

# Berk-Tek LANmark-SST Reduced Diameter UTP Plenum Category 6A



## Parametric Measurements

Description	
Mutual Capacitance (nominal)	5.1 nF Ohms/100m
DC Resistance	9.38 Ohms/100m max.
Skew	45 ns/100m max.
Pair-to-Ground Unbalance	330 pF/100m max.
Velocity of Propagation	70% nom.
DC Resistance Unbalance	4% max.

## Color Code

Pair-1	White/Blue	Blue
Pair-2	White/Orange	Orange
Pair-3	White/Green	Green
Pair-4	White/Brown	Brown

## Supported Category 6A Applications

Standard	Application	Speed
IEEE 802.3an	10GBASE-T	10 Gb/s
IEEE 802.3	1000BASE-T	1 Gb/s
TIA/EIA 854	1000BASE-TX	1 Gb/s
ATM	155 Mb/s	155 Mb/s
CDDI		100 Mb/s
IEEE 802.3	100BASE-T	10 Mb/s
IEEE 802.3 af	PoE	1 Gb/s
IEEE 802.3 at	PoE+, Type 1 & 2	1 Gb/s
IEEE 802.3 bt	PoE++, Type 3 & 4	10 Gb/s

## Technical Data - Physical

Conductor	23 AWG Bare Copper	
Conductor Diameter - in. (mm)	0.022	(0.56)
Insulated Conductor Diameter - in. (mm)	0.042	(1.07)
Cable Diameter - in. (mm)	0.250	(6.35)
Nom. Cable Weight - lb./kft (kg/kft)	33	(14.97)
Max. Installation Tension - lb. (N)	25	(110)
Min. Bend Radius - in. (mm)	1.00	(25.40)

## LANMARK-SST UTP PLENUM JACKET LEGEND

BERK-TEK LANMARK-SST UTP 23 AWG CMP 105C C(ETL)US CMP-LP (0.7A) ETL VERIFIED TIA-568.2-D CAT 6A [DATE] [COUNTER] [UID]" FT

## LANMARK-SST UNIVERSAL APPLICATION SCORE

A cable's Universal Application Score (UA Score) is an indicator of how well IP traffic is protected and how much heat rise there is when the cable undergoes PoE testing. The score is represented by a numeric value between 1 and 10, with 1 being the lowest and 10 being the highest. In reality, a score of 1 is unattainable because it would represent no connection, as is a score of 10 because it would mean zero heat rise with high power PoE. UA Scores range between 2 and 9.

		LANmark-SST					
UA Score	Score	> 3.6	3.6 - 5.5	5.6 - 6.5	6.6 - 7.5	7.6 - 8.5	8.6 +
	Performance	Unacceptable	Poor	Limited	Good	Better	Best
	Heat Rise	Severe	Significant	Moderate	Moderate	Moderate	Low

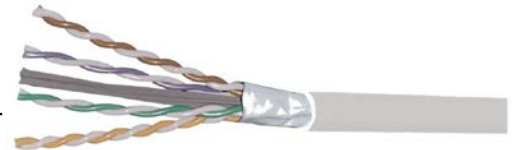
What does the UA Score tell you? A performance rating of "Poor" (less than 3.6) means that there were consistent noticeable flaws (dropped frames, media loss, etc) in the applications tested. As you move towards higher performance scores, you would notice fewer and fewer flaws, until you reach a score of 9, which is almost flawless. PoE testing is also an important factor; cables that experienced less temperature rise achieve higher UA Scores.

## SELLING INFORMATION

PLEASE NOTE: In the interest of product improvement, Berk-Tek may make improvements or changes in the products, the programs or services described at any time without notice. Additionally, the information contained herein may include typographical errors or technical inaccuracies. Changes will be periodically made to address any such issues.

# Next Generation SYSTIMAX® Category 6A U/UTP Cable – North America Only

CommScope introduces the 2091SDB - the next generation of SYSTIMAX Category 6A U/UTP small diameter cable. It maintains the same trusted performance of its predecessor (2091SD) at a smaller cable diameter. The 2091SDB retains its cross-web separator design for reliable near-end crosstalk (NEXT) performance and robust cable structural integrity.



- Guaranteed by SYSTIMAX Application Assurance and 25-year warranty
- Cable diameter reduction from 0.265 inch to 0.249 inch (6.325 mm) compared to previous generation
- Cross-web separator for optimal NEXT margin and stable cable structure

**First Availability:** April 1, 2022 order date

**General Availability:** Q2, 2022

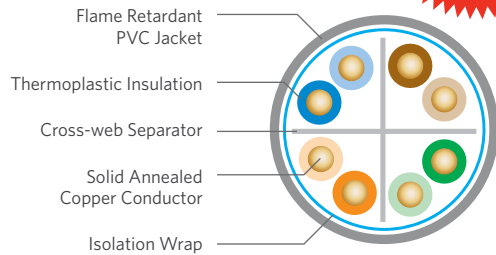
## Ordering Information:

Material ID	Description
<a href="#">760253621</a>	2091SDB BLU C6A 4/23 U/UTP R1000
<a href="#">760253622</a>	2091SDB WHT C6A 4/23 U/UTP R1000
<a href="#">760253623</a>	2091SDB SLT C6A 4/23 U/UTP R1000
<a href="#">760253624</a>	2091SDB YEL C6A 4/23 U/UTP R1000
<a href="#">760253625</a>	2091SDB GRN C6A 4/23 U/UTP R1000
<a href="#">760253629</a>	2091SDB RED C6A 4/23 U/UTP R1000
<a href="#">760253630</a>	2091SDB BLK C6A 4/23 U/UTP R1000

**For product specifications and installation procedures, click on the links above.**

# 10Gain® XP Category 6A

CMR-LP/CMP-LP



## SPECIFICATIONS

Pair Count	4
Conductor	Solid annealed copper
AWG (mm)	23 (0.57)
Insulation	CMR: Thermoplastic CMP: FEP CMR-LSHF: HDPE
Insulation Colors	Pair 1: ColorTip Light Blue, Blue Pair 2: ColorTip Light Orange, Orange Pair 3: ColorTip Light Green, Green Pair 4: ColorTip Light Brown, Brown
Separator	Cross-web
Isolation Wrap	Proprietary construction
Jacket	CMR: Flame retardant (FR) PVC CMP: FR, low smoke PVC CMR-LSHF: Flame retardant LSHF
Characteristic Impedance Ohms	100 ± 15
Velocity of Propagation %	CMR: 66 CMP: 71 CMR-LSHF: 66
Performance Compliance	UL 444 CSA C22.2 No. 214-08 UL 1666 NFPA 262 ANSI/TIA-568.2-D Article 800, NEC (NFPA 70) HDBaseT Class A and B
NRTL Programs	UL Verified CAT 6A UL Listed CMR-LP (0.5) c(UL) Listed CMR UL Listed CMP-LP (0.6) c(UL) Listed CMP HDBaseT Certified UL, c(UL) Listed CMR-LSHF
Sustainability	UL Certified EPD HPD Multi-Attribute Certification USGBC® Member RoHS-compliant/RoHS 2-compliant REACH-compliant

## PRODUCT DESCRIPTION

**FIRST MANUFACTURER IN THE INDUSTRY**  
to offer products that contribute toward LEED!

**10Gain® XP** is the first Category 6A cable without a continuous shield to offer 7 dB margin over Alien Crosstalk (AXT) performance requirements in ANSI/TIA-568.2-D. Its uniquely designed Isolation Wrap contains discontinuous sections of metallized material, held in place by a polymeric layer. **10Gain XP** has a nominal 0.25" (CMP) or 0.275" (CMR) diameter that allows for higher cable density than other CAT 6A cable products. 10Gain XP is ideal for PoE applications requiring higher levels of current and simultaneously up to 10 Gigabit Ethernet. 10Gain XP is certified for HD A/V applications using HDBaseT Class A and B protocol. A CMR-LSHF cable version is available for applications and environments requiring a Low Smoke Halogen-Free (LSHF) construction.

## APPLICATIONS

- 10BASE-T through 10GBASE-T Ethernet
- Power over Ethernet (PoE) - IEEE 802.3bt Type 1 to 4
- ATM and token ring
- Backward compatible to legacy protocols and applications
- HDBaseT Class A and B

## FEATURES

- UL Certified Environmental Product Declaration (EPD)
- Health Product Declaration™ (HPD™)
- Multi-Attribute Certification by GreenCircle Certified, LLC
- Non-conductive Isolation Wrap
- Tested to 650 MHz
- Nominal 0.25 (CMP) or 0.275 (CMR) inch diameter
- CableID® alpha numeric code printed every 2 feet
- ColorTip® circuit identification system
- Tested up to 100 W in most severe temperature conditions in a bundle of 100 cables
- HDBaseT Class A and B certified
- UL LP listed
- Temperature cable rating: 75°C for CMR and 90°C for CMP
- Low Smoke Halogen-Free

## BENEFITS

- Contributes toward 1 LEED credit under the Material and Resources credit (MRc)
- Contributes toward 1 LEED credit under the MRc
- Offers an overview of the sustainability of a product, its packaging and manufacturing
- 8 dB AXT performance without grounding or bonding
- Assures ample bandwidth headroom
- Higher cable density, smaller bend radius and lowers installation costs
- Easily identifies both ends of a cable run without the need to separately label or tone the cable
- Easily identify conductor mates even in low-light environments
- Offers 82% power efficiency and lowest temperature increase inside a bundle
- Ideal for any A/V application up to 100m channel
- Third-party assurance of product safety in high-heat and high-power applications
- Temperature rating of the insulation AND of the jacket provide improved cable lifespan despite high-heat and high-power applications
- Meets IEC 62821 requirements for toxicity, acidity and smoke

## PART NUMBERS AND PHYSICAL CHARACTERISTICS

Listing	Part Number <sup>1</sup>	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Package	Packages per Pallet
CMR	6H-246-xA	0.275 (6.99)	28 (12.5)	1,000' BrakeBox®	12
CMR	6H-272-xA	0.275 (6.99)	28 (12.5)	1,000' Plywood reel	16
CMR-LSHF	6H-272-xM	0.3 (7.62)	40 (59.7)	1,000' Plywood reel	12
CMP	6H-246-xB	0.25 (6.35)	29 (13)	1,000' BrakeBox	12
CMP	6H-272-xB	0.25 (6.35)	29 (13)	1,000' Plywood reel	16



**ELECTRICAL SPECIFICATIONS**

Frequency MHz	Insertion Loss @ 20°C Maximum dB/100 m		NEXT Minimum dB/100 m		ACR Minimum dB/100 m		PSNEXT Minimum dB/100 m		PSACR Minimum dB/100 m	
	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical
1	2.1	2.0	74.3	78.3	72.2	77.3	72.3	77.3	70.2	76.3
4	3.8	3.7	65.3	69.3	61.5	66.6	63.3	68.3	59.5	65.6
8	5.3	5.1	60.8	64.8	55.4	60.6	58.8	63.8	53.4	59.6
10	5.9	5.7	59.3	63.3	53.4	58.6	57.3	62.3	51.4	57.6
16	7.5	7.3	56.2	60.2	48.8	54.0	54.2	59.2	46.8	53.0
20	8.4	8.1	54.8	58.8	46.4	51.7	52.8	57.8	44.4	51.2
25	9.4	9.1	53.3	57.3	44.0	49.7	51.3	56.3	42.0	49.0
31.25	10.5	10.2	51.9	55.9	41.4	47.2	49.9	54.9	39.4	46.7
62.5	15.0	14.4	47.4	51.4	32.4	39.0	45.4	50.4	30.4	38.4
100	19.1	18.4	44.3	48.3	25.2	32.4	42.3	47.3	23.2	31.7
200	27.6	26.5	39.8	43.8	12.2	20.1	37.8	42.8	10.2	19.5
250	31.1	29.8	38.3	42.3	7.3	15.5	36.3	41.3	5.3	15.1
300	34.3	32.9	37.1	41.1	2.9	11.4	35.1	40.1	0.9	10.8
400	40.1	38.3	35.3	39.3		4.6	33.3	38.3		3.6
500	45.3	43.0	33.8	37.8			31.8	36.8		
600		47.5		36.4				35.6		
650		49.7		35.9				35.1		
700		51.4		35.5				34.6		
750		53.3		35.1				34.2		

Frequency MHz	Return Loss Minimum dB/100 m		ACRF Minimum dB/100 m		PSACRF Minimum dB/100 m		PSANEXT Minimum dB/100 m		PSAACRF Minimum dB/100 m	
	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical
1	20.0	22.0	67.8	73.8	64.8	70.8	75.0	96.5	75.0	80.0
4	23.0	25.0	55.8	61.8	52.8	58.8	75.0	87.5	74.2	79.2
8	24.5	26.5	49.7	55.7	46.7	52.7	75.0	83.0	68.1	73.1
10	25.0	27.0	47.8	53.8	44.8	50.8	75.0	81.5	66.2	71.2
16	25.0	27.0	43.7	49.7	40.7	46.7	75.0	80.0	62.1	67.1
20	25.0	27.0	41.8	47.8	38.8	44.8	75.0	80.0	60.2	65.2
25	24.3	26.3	39.8	45.8	36.8	42.8	75.0	80.0	58.2	63.2
31.25	23.6	25.6	37.9	43.9	34.9	40.9	75.0	80.0	56.3	61.3
62.5	21.5	23.5	31.9	37.9	28.9	34.9	73.6	78.6	50.3	55.3
100	20.1	22.1	27.8	33.8	24.8	30.8	70.5	75.5	46.2	51.2
200	18.0	20.0	21.8	27.8	18.8	24.8	66.0	71.0	40.2	45.2
250	17.3	19.3	19.8	25.8	16.8	22.8	64.5	69.5	38.2	43.2
300	16.8	18.8	18.3	24.3	15.3	21.3	63.3	68.3	36.7	41.7
400	15.9	17.9	15.8	21.8	12.8	18.8	64.5	66.5	35.2	39.2
500	15.2	17.2	13.8	19.8	10.8	16.8	60.0	65.0	32.3	37.2
600		16.7		18.2		15.2		63.8		35.6
650		16.4		17.5		14.5		63.3		34.9
700		16.2		16.9		13.9				
750		16.0		16.3		13.3				

**SUSTAINABILITY LEADERSHIP**



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