

## Base Product



InstaPATCH® Cu GigaSPEED X10D® F/UTP Plenum Copper Cable, single row standard density outlet to single row standard density outlet, 24 links

## Product Classification

<b>Regional Availability</b>	Asia   Australia/New Zealand   EMEA   Latin America   North America
<b>Portfolio</b>	CommScope®
<b>Product Type</b>	Copper trunk cable assembly
<b>Product Brand</b>	GigaSPEED X10D®   InstaPATCH® Cu

## General Specifications

<b>ANSI/TIA Category</b>	6A
<b>Cable Type</b>	F/UTP (shielded)
<b>Conductor Type</b>	Solid
<b>Interface, Connector A</b>	Information outlet
<b>Interface Feature, connector A</b>	Single row   Standard density
<b>Interface, Connector B</b>	Information outlet
<b>Interface Feature, connector B</b>	Single row   Standard density
<b>Link Count</b>	24
<b>Wiring</b>	T568B

## Dimensions

<b>Cable Assembly Length Range (m)</b>	5 – 90
<b>Cable Assembly Length Range (ft)</b>	17 – 295

## Electrical Specifications

<b>dc Resistance, maximum</b>	0.3 ohm
<b>Safety Voltage Rating</b>	300 V

## Ordering Tree

# CDAAG | IP6A-24PFTP-01S-01S

1 2 3 4 5 6 7 8 9 10 11 12											
C A A A C - 1 1 H A B B F 0 5 0											
<b>Cable Type</b>	<b>Connector B</b>	<b>Orientation A</b>	<b>Orientation B</b>								
1 A Cat 6A X10D – U/UTP (Plenum) B Cat 6A X10D – U/UTP (Riser) C Cat 6A X10D – U/UTP (LSZH) D Cat 6A X10D – F/UTP (Plenum) E Cat 6A X10D – F/UTP (Riser) F Cat 6A X10D – F/UTP (LSZH) G Cat 6 XL – U/UTP (Plenum) H Cat 6 XL – U/UTP (Riser) J Cat 6 XL – U/UTP (LSZH) Q Cat 6A X10D – S/FTP (LSZH) R Cat 6 – U/UTP Class B Rated (LSZH) S Cat 6A – U/UTP Class B Rated (LSZH) Y Cat 6A X10D SD – U/UTP (Riser)	3 A Outlet* – Single Row Standard Density B Outlet* – Dual Row Standard Density C Outlet* – Dual Row High Density G RJ45 Plug* – Single Row Standard Density H RJ45 Plug* – Dual Row Standard Density J RJ45 Plug* – Dual Row High Density N 1100 Module R 360 1100 Evolve Module S OneLink 2x6 T OneLink 2x4	5 1 Trident Series Flat 2 Right Paired Flat 3 Right Series Flat 4 Left Paired Flat 5 Left Series Flat 6 Trident Paired Flat A Trident Series Angled B Right Paired Angled C Right Series Angled D Left Paired Angled E Left Series Angled F Trident Paired Angled	6 1 Trident Series Flat 2 Right Paired Flat 3 Right Series Flat 4 Left Paired Flat 5 Left Series Flat 6 Trident Paired Flat A Trident Series Angled B Right Paired Angled C Right Series Angled D Left Paired Angled E Left Series Angled F Trident Paired Angled X Not Applicable								
<b>Connector A</b>	<b>Link</b>	<b>Outlet Color</b>	<b>UOM</b>	<b>Length</b>							
2 A Outlet* – Single Row Standard Density B Outlet* – Dual Row Standard Density C Outlet* – Dual Row High Density G RJ45 Plug* – Single Row Standard Density H RJ45 Plug* – Dual Row Standard Density J RJ45 Plug* – Dual Row High Density N 1100 Module R 360 1100 Evolve Module S OneLink 2x6 T OneLink 2x4 X Unterminated	4 B 6 C 8 D 12 E 16 F 18 G 24	9 0 Not Applicable 1 Black (BK) 2 Blue (BL) 3 White (WH)	11 F Foot M Meter	12 XXX							
	<b>Bundling</b>	<b>Jacket Color</b>	<ul style="list-style-type: none"> <li>Cords &gt; 1m are authorized for use in channels and are an effective standalone method used to connect active devices</li> <li>Cords &lt; 1m are also valid elements for use in a channel or as an equipment interconnect, but due to their limited length are not guaranteed to meet component compliance requirements that were developed to assess the quality of longer cords</li> </ul>								
	7 H Hook-n-loop S Sleaving	10 8 White (WH) C Slate (SL) Z Blue (BL)									
	<b>Labeling</b>										
	8 A Generic Label										

## Environmental Specifications

<b>Operating Temperature</b>	-10 °C to +60 °C (+14 °F to +140 °F)
<b>Environmental Space</b>	Plenum
<b>Flammability Rating</b>	UL 94 V-0

## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## Included Products

2291B-4/23	–	GigaSPEED X10D® 2291B ETL Verified Category 6A F/UTP Cable, plenum, 4 pair count
HGS620	–	GigaSPEED X10D® HGS-Series Modular Jack, RJ45, Cat6A, Shielded

# 2291B-4/23

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GigaSPEED X10D® 2291B ETL Verified Category 6A F/UTP Cable, plenum, 4 pair count

## Product Classification

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

## General Specifications

<b>Product Number</b>	2291B
<b>ANSI/TIA Category</b>	6A
<b>Cable Component Type</b>	Horizontal
<b>Cable Type</b>	F/UTP (shielded)
<b>Conductor Type, singles</b>	Solid
<b>Conductors, quantity</b>	8
<b>Drain Wire Type</b>	Solid
<b>Pairs, quantity</b>	4
<b>Separator Type</b>	Isolator
<b>Transmission Standards</b>	ANSI/TIA-568.2-D

## Dimensions

<b>Diameter Over Jacket, nominal</b>	7.01 mm   0.276 in
<b>Jacket Thickness</b>	0.457 mm   0.018 in
<b>Conductor Gauge, singles</b>	23 AWG
<b>Drain Wire Gauge</b>	26 AWG

## Cross Section Drawing



## Electrical Specifications

<b>dc Resistance Unbalance, maximum</b>	4 %
<b>dc Resistance, maximum</b>	8 ohms/100 m   2.438 ohms/100 ft
<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>	70 %
<b>Operating Frequency, maximum</b>	500 MHz
<b>Operating Voltage, maximum</b>	80 V
<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

## Material Specifications

<b>Conductor Material</b>	Bare copper
<b>Drain Wire Material</b>	Tinned copper
<b>Insulation Material</b>	FEP
<b>Jacket Material</b>	PVC
<b>Separator Material</b>	FEP
<b>Shield (Tape) Material</b>	Aluminum/Poly

## Mechanical Specifications

<b>Pulling Tension, maximum</b>	11.34 kg   25 lb
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## 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>Environmental Space</b>	Plenum
<b>Temperature Rating, UL</b>	105 °C   221 °F
<b>Flame Test Method</b>	CMP/FT6
<b>Smoke Test Method</b>	CMP/FT6

## Packaging and Weights

<b>Cable weight</b>	58.038 kg/km   39 lb/kft
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## Regulatory Compliance/Certifications

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

# HGS620

## Base Product



## GigaSPEED X10D® HGS-Series Modular Jack, RJ45, Cat6A, Shielded

## Product Classification

### Regional Availability

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

### Portfolio

SYSTIMAX®

### Product Type

Modular jack

### Product Brand

GigaSPEED X10D®

### Product Series

HGS620

## General Specifications

### ANSI/TIA Category

6A

### Application

Adapts to M Series and Keystone

### Cable Type

Shielded

### Conductor Type

Solid | Stranded

### Outlet Type

High density

### Termination Type

IDC

### Wiring

T568A | T568B

## Dimensions

### Height

19.56 mm | 0.77 in

### Width

17.02 mm | 0.67 in

### Depth

33.53 mm | 1.32 in

### Compatible Conductor Gauge, solid

22 AWG | 24 AWG

### Compatible Conductor Gauge, stranded

22 AWG | 24 AWG

## Electrical Specifications

### Contact Resistance Variation, maximum

20 mOhm

### Contact Resistance, maximum

100 mOhm

# HGS620

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<b>Current Rating at Temperature</b>	1.5 A @ 20 °C   1.5 A @ 68 °F
<b>Dielectric Withstand Voltage, RMS, conductive surface</b>	1,500 Vac @ 60 Hz
<b>Dielectric Withstand Voltage, RMS, contact-to-contact</b>	1,000 Vac @ 60 Hz
<b>Insulation Resistance, minimum</b>	500 mOhm
<b>Remote Powering</b>	Fully supports the safe delivery of power over LAN cabling described by IEEE 802.3bt (Type 4) and complies with the unloading under electrical load requirements prescribed by IEC 60512-99-002

## Material Specifications

<b>Contact Plating Material</b>	Precious metals
<b>Material Type</b>	Copper alloy   High-impact, flame retardant, thermoplastic   Tin   Zinc
<b>Termination Contact Plating</b>	Nickel

## Mechanical Specifications

<b>Plug Insertion Life, minimum</b>	750
<b>Plug Insertion Life, test plug</b>	IEC 60603-7 compliant plug
<b>Plug Retention Force, minimum</b>	133 N   29.9 lbf

## Environmental Specifications

<b>Operating Temperature</b>	-10 °C to +60 °C (+14 °F to +140 °F)
<b>Storage Temperature</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Relative Humidity</b>	Up to 95%, non-condensing
<b>Flammability Rating</b>	UL 94 V-0
<b>Safety Standard</b>	UL   cUL