

CDBBD | IP6A-12PFTP-02S-02S

Base Product



InstaPATCH® Cu GigaSPEED X10D® F/UTP Plenum Copper Cable, dual row standard density outlet to dual row standard density outlet, 12 links

Product Classification

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

General Specifications

ANSI/TIA Category	6A
Cable Type	F/UTP (shielded)
Conductor Type	Solid
Interface, Connector A	Information outlet
Interface Feature, connector A	Dual row Standard density
Interface, Connector B	Information outlet
Interface Feature, connector B	Dual row Standard density
Link Count	12
Wiring	T568B

Dimensions

Cable Assembly Length Range (m)	5 – 90
Cable Assembly Length Range (ft)	17 – 295

Electrical Specifications

dc Resistance, maximum	0.3 ohm
Safety Voltage Rating	300 V

Ordering Tree

CDBBD | IP6A-12PFTP-02S-02S

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

Cable Type	
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)

Connector A	
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

Connector B	
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

Orientation A	
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

Orientation B	
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

Link	
B	6
C	8
D	12
E	16
F	18
G	24

Outlet Color	
0	Not Applicable
1	Black (BK)
2	Blue (BL)
B	White (WH)

UOM	
F	Foot
M	Meter

Length	
12	XXX

Bundling	
H	Hook-n-loop
S	Sleaving

Jacket Color	
B	White (WH)
C	Slate (SL)
Z	Blue (BL)

Labeling	
A	Generic Label

- Cords > 1m are authorized for use in channels and are an effective standalone method used to connect active devices
- Cords < 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

Environmental Specifications

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

Regulatory Compliance/Certifications

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

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



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

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

Dimensions

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

Cross Section Drawing



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
Mutual Capacitance at Frequency	5.6 nF/100 m @ 1 kHz
Nominal Velocity of Propagation (NVP)	70 %
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
Drain Wire Material	Tinned copper
Insulation Material	FEP
Jacket Material	PVC
Separator Material	FEP
Shield (Tape) Material	Aluminum/Poly

Mechanical Specifications

Pulling Tension, maximum	11.34 kg 25 lb
---------------------------------	------------------

Environmental Specifications

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

Packaging and Weights

Cable weight	58.038 kg/km 39 lb/kft
---------------------	--------------------------

Regulatory Compliance/Certifications

Agency	Classification
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

Current Rating at Temperature	1.5 A @ 20 °C 1.5 A @ 68 °F
Dielectric Withstand Voltage, RMS, conductive surface	1,500 Vac @ 60 Hz
Dielectric Withstand Voltage, RMS, contact-to-contact	1,000 Vac @ 60 Hz
Insulation Resistance, minimum	500 mOhm
Remote Powering	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

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

Mechanical Specifications

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

Environmental Specifications

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