

## CAT 6A Product Specifications and Submittal

Connect with the Black Box  
guaranteed-for-life CAT 6A  
structured cabling channel solution.

- » Patch Cable
- » Bulk Cable
- » Patch Panels
- » Jacks



# When it comes to a CAT 6A channel, come to Black Box for the

Guaranteed for life | Guaranteed best prices | Guaranteed performance

## Guaranteed for life.

Our CAT 6A channel components are guaranteed for life! Our unbeatable Double Diamond™ Warranty covers everything from manufacturing defects to accidental damage—including water and surge damage.



Plus, all Black Box® brand copper cables and most fiber cables and infrastructure components are also guaranteed for life.

## Guaranteed best prices.

Our Best Price Guarantee means you can buy with confidence from Black Box. You probably won't find a lower price elsewhere. But if you do find another manufacturer's product at a lower price than the Black Box equivalent, provide us with a copy of the competitor's quote, and we'll beat it with our own Black Box® solution. (Certain custom products are excluded.) For more details, call Customer Service at 724-746-5500 or go to [blackbox.com](http://blackbox.com).



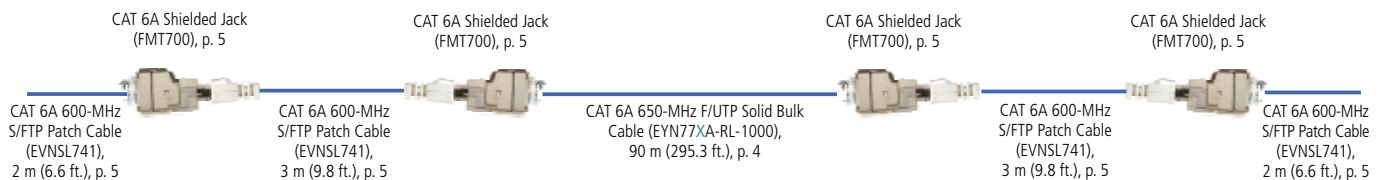
## Guaranteed performance.

To ensure consistent top quality, Black Box cable is tested. Plus, because Black Box cable is guaranteed for life, you get application assurance. Your Black Box cable is guaranteed to perform to CAT 6A specifications.



### Black Box Explains

#### CAT 6A four-point testing.



Black Box conducts its own four-point test on its CAT 6A shielded channel to ensure compliance with TIA 568-C.2 specifications.

# best value anywhere—guaranteed.

## Black Box Explains

### CAT 6A.

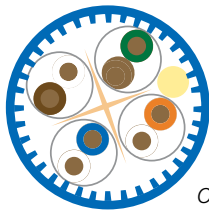
Augmented Category 6 (CAT 6A)—Class EA was ratified in February 2008. This standard calls for 10-Gigabit Ethernet data transmission over a 4-pair copper cabling system up to 100 meters. CAT 6A extends CAT6 electrical specifications from 250 MHz to 500 MHz. It introduces the ANEXT requirement. It also replaces the term Equal Level Far-End Crosstalk (ELFEXT) with Attenuation to Crosstalk Ratio, Far-End (ACRF) to mesh with ISO terminology. CAT 6A provides improved insertion loss over CAT6. It is a good choice for noisy environments with lots of EMI. CAT 6A is also well-suited for use with PoE+.

CAT 6A UTP cable is significantly larger than CAT6 cable. It features larger conductors, usually 22 AWG, and is designed with more space between the pairs to minimize ANEXT. The outside diameter of CAT 6A cable averages 0.29–0.35" compared to 0.21–0.24" for CAT6 cable. This reduces the number of cables you can fit in a conduit. For example, at a 40% fill ratio, you can run three CAT 6A cables in a ¾" conduit vs. five CAT6 cables.

### CAT6 vs. CAT 6A



CAT6  
OD: 0.21"–0.24"



CAT 6A UTP  
OD: 0.29"–0.35"

### 10-GbE and CAT 6A

#### CAT 6A UTP

CAT 6A UTP is constructed in a certain way to minimize crosstalk and ANEXT. This includes larger conductors, (23 AWG minimum), tighter twists, an internal separator between the pairs, and a thicker outer jacket designed to provide extra internal air space. These features increase the outer diameter of the cable, typically to 0.354 inches in diameter, up from 0.25 inches for CAT6 cable. This creates a greater distance between pairs in adjacent links, thus reducing the between-channel signal coupling. ANEXT can be improved by laying CAT 6A UTP cable loosely in

pathways and raceways with space between the cables. CAT 6A UTP also needs to be tested for ANEXT—a complex and time-consuming process where it can take up to 50 minutes to test one link in a bundle of 24 CAT 6A UTP cables.

#### CAT 6A F/UTP

ANEXT can be greatly reduced, if not eliminated completely, by using shielded cables and equipment. CAT 6A F/UTP cable does a much better job of eliminating ANEXT than CAT 6A UTP and thus provides significantly more headroom (as much as 20 dB) for 10-GbE over copper. The foil shield acts as a barrier, preventing EMI/RFI from coupling onto the twisted pairs from other adjacent cables. It also reflects the noise from machinery, lights, motors, and other sources of EMI, as well as RFI from cell phones, wireless access points, and radios.

#### CAT 6A UTP vs. F/UTP

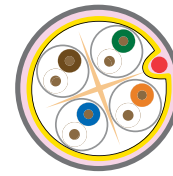
Although shielded cable has the reputation of being bigger, bulkier, and more difficult to handle and install than unshielded cable, this is not the case with CAT 6A F/UTP cable. It is easier to handle, requires less space to maintain proper bend radius, and uses smaller conduits, cable trays, and pathways. CAT 6A UTP has a larger outside diameter (0.354") than CAT 6A F/UTP cable (0.265"–0.30"). This creates a great difference in the fill rate of cabling pathways. An increase in the outside diameter (O.D.) of 0.1", from 0.25" to 0.35" for example, represents a 21% increase in fill volume. In general, CAT 6A F/UTP cable provides a minimum of 35% more fill capacity than CAT 6A UTP cable.

Plus, innovations in connector technology have made terminating CAT 6A F/UTP cable easier than terminating bulkier CAT 6A UTP cable.

### CAT 6A UTP vs. CAT 6A F/UTP



CAT 6A UTP  
OD: 0.354"



CAT 6A F/UTP  
OD: 0.290"

## Buyer's Guide | Performance standards for channels

TIA/EIA—ISO/IEC	CAT5e—Class D	CAT6—Class E	CAT 6A*—Class E <sub>A</sub>
Frequency (MHz)	1–100	1–250	1–500
Insertion Loss (dB)	24.0	21.3–21.7	20.9
NEXT (dB)	30.1	39.9	39.9
PS-NEXT (dB)	27.1	37.1	37.1
ACR (dB)	6.1	18.6	18.6
PS-ACR (dB)	3.1	15.8	15.8
ACRF <sup>†</sup> (dB)	17.4	23.3	23.3–22.5
PS-ACRF <sup>‡</sup> (dB)	14.4	20.3	20.3–22.5
Return Loss (dB)	10.0	12.0	12.0
PS-ANEXT (dB)	—	—	60.0
PS-AACRF (dB)	—	—	37.0
Propagation Delay (ns)	548	548	548
Networks Supported	1000BASE-T	1000BASE-TX	10GBASE-T

\* The TIA/EIA Category standards are nearly identical to the ISO/IEC Class standards. Where there is a difference, it's noted.

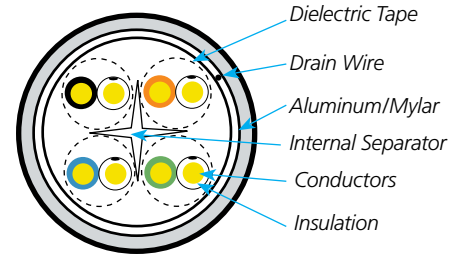
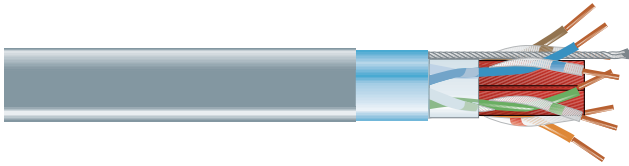
† CAT7 and CAT7a are not recognized by the TIA/EIA. They are listed in the ISO/IEC 11801 2nd Ed Standard.

‡ ACRF (Attenuation to Crosstalk Ratio Far End) was specified as EL-FEXT (Equal-Level Far-End CrossTalk) for CAT5e/Class D and CAT6/Class E.

§ PS-ACRF (Power Sum Attenuation to Crosstalk Ratio) was specified as PS-ELFEXT (Power Sum Equal-Level Far-End CrossTalk) for CAT5e—Class D and CAT6—Class E.

# CAT 6A Shielded Solution

## CAT 6A 650-MHz F/UTP Bulk Cable



### The backbone of your shielded CAT 6A channel.

- Use with shielded CAT 6A components for a 10GBASE-T channel.
- Tested up to 650 MHz.

### Construction facts.

- Foil shield construction virtually eliminates alien crosstalk.
- Internal separator, FEP insulation, dielectric tape, drain wire, aluminum/Mylar® tape.
- A center isolation member maintains pair separation for optimal ANEXT performance.
- Insulation: PVC: polyolefin. Plenum: fluoropolymer (FEP).
- Both have a longitudinal rip cord for easy jacket opening.

### Applications

- 10-GbE data centers:
  - Server to server.
  - Server to storage.
  - Server to switch.
- High-bandwidth network applications:
  - Distributed backbone.
  - Floor to floor backbone.
  - 10-GbE to the desktop.
  - Active zone cabling.
- PoE, PoE+:
  - WAP.
  - VoIP.
  - Security devices.
- High-bandwidth applications:
  - Video on Demand (VoD).
  - Real-time security surveillance.
  - High-res 3D modeling.
  - On-line publishing.
  - Broadband video.

### Compliance

- ANSI/TIA/EIA-568-C.2-Category 6 A.
- UL® 444, 1666.
- ISO/IEC 11801 Class E.
- ETL Verified.
- RoHS.

- **◆◆ WARRANTY** — Lifetime

### Buyer's Guide | Electrical Specifications/100 m

MHz	NEXT (dB) Min.	PS-NEXT (dB) Min.	ACRF* (dB) Min.	PS-ACRF (dB) Min.	ACR (dB) Min.	PS-ACR (dB) Min.	Return Loss (dB) Min.
100	45.3	43.3	28.0	25.0	26.2	24.2	20.1
250	40.8	38.8	22.0	19.0	13.2	11.2	18.0
300	38.1	36.3	18.5	15.5	3.8	2.0	16.8
400	36.3	34.3	16.0	13.0	—	—	15.9
500	34.8	32.8	14.0	11.0	—	—	15.5

\* Attenuation to Crosstalk Ratio Far End (ACRF) we previously referred to as Equal-Level Far-End Crosstalk (ELFEXT).

### TECH SPECS

**Bend Radius** — PVC: 1.41" (36 mm); Plenum: 1.29" (33 mm)  
**Capacitance Unbalance (Pair Ground)** — 330 pF/100 m max.  
**Characteristic Impedance** — 100 ohm ± 10% (10–500 MHz)  
**Conductor** — 4 pairs, 23 AWG solid bare copper  
**Construction** — Internal separator, FEP insulation, dielectric tape, drain wire, aluminum/Mylar tape  
**Delay Skew** — 45 ns/100 max.  
**DCR Unbalance** — PVC: 3% max.; Plenum: 5% max.  
**Drain Wire** — Tinned copper  
**Insertion Loss (dB/100 m)** — 18.6 @ 100 MHz; 43.8 @ 500 MHz; 50.6 @ 650 MHz  
**Insulation** — PVC: HDPE; Plenum: fluoropolymer (FEP)  
**Jacket** — Low-smoke, flame-retardant LSOH/PVC  
**Mutual Capacitance** — 56 pF/100 m max.  
**Nominal Velocity of Propagation** — PVC: 66%; Plenum: 70%  
**Outside Diameter** — PVC: 0.303" (7.7 mm); Plenum: 0.283" (7.3 mm)  
**Propagation Delay Skew** — 45 ns/100 m max.  
**Return Loss (dB/100 m)** — 21.1 @ 100 MHz; 16.5 @ 500 MHz; 15.7 @ 650 MHz  
**Shield** — Aluminum/Mylar  
**Test Range** — 1–650 MHz  
**Weight** — Not on reel: PVC: 41.8 lb. (19 kg); Plenum: 48.3 lb. (21.9 kg)

Item	Code
CAT 6A 650-MHz F/UTP Bulk Cable, 23 AWG, Solid, 4-Pair 1000-ft. (304.8-m), Blue	
PVC CMR	EYN770A-RL-1000
Plenum CMP	EYN771A-RL-1000

## CAT 6A Patch Panel

- Features built-in rear cable management bar and an attached grounding wire.
- Large port numbers make ID easy.
- Shielded jacks (**facing page**) snap in from the rear.
- **◆◆ WARRANTY** — Lifetime

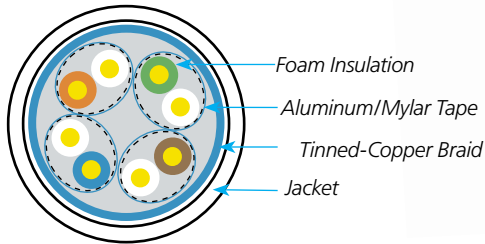
### TECH SPECS

**House** — SPCC Metal  
**RoHS** — Yes  
**Standards** — UL® 1863; E191644  
**Weight** — 2.4 lb. (1.1 kg)



Item	Code
CAT 6A Patch Panel, 24-Port, Blank, 19"W, 1.75"H (1U) x 4.375"D	JPMT700A
◆ Includes (1) panel; (1) ground wire; and cuphead screws (4) 4-24 and (4) 10-32.	

## CAT 6A 600-MHz S/FTP Patch Cable



### Your data center and desktop connection.

- Meets or exceeds all augmented CAT 6A TIA-568-C.2 requirements.
- Tested to 600 MHz.
- Fully shielded construction virtually eliminates ANEXT.

### Construction facts.

- Cable features four individually aluminum/Mylar® wrapped (metal side out) twisted pairs, an overall tinned-copper braided shield, foamed PE insulation, and an FRPVC jacket.
- 26 AWG stranded copper conductors.
- Specially designed RJ-45 shielded plug.
- Plug body features metal shield with built-in strain relief on the back and a plastic tab.
- Plug body is designed to make contact with the braided shield.
- Removable, snagless boot provides tab protection. (Removal is not recommended.)

### Applications

- 10-Gigabit Ethernet.
- High-bandwidth network applications.
- High-performance digital video applications.

### Compliance

- TIA/EIA-568-C.2 CAT 6A.
- ISO/IEC 11801.
- IEC 61156-6.
- E196163-C.
- UL® 444 CM.
- RoHS.
- **◆◆ WARRANTY** — Lifetime

### Buyer's Guide | Electrical Specifications at 100 m

MHz	Attenuation (dB) Min.	NEXT (dB) Min.	PS-NEXT (dB) Min.	ELFEXT (dB) Min.	PS-ELFEXT (dB) Min.	Return Loss (dB) Min.
100	28.5	72	69	54	51	19
200	41.2	68	65	48	45	16.4
250	46.5	66	63	46	43	15.6
300	51.3	65	62	44	41	15.6
600	75.1	61	58	38	35	15.6

### TECH SPECS

- Bend Radius —  $\geq 5$  times O.D.
- Capacitance Unbalance — Pair to ground: 330 pF/100 m at 1 kHz (max.)
- DC Resistance — 14.5 watts/100 m at 68° F (+20° C)
- Delay Skew — 25 ns
- Diameter (Outside) — 0.224" (0.57 cm)
- Insulation Resistance — 500 V (min.); 150 MW/km at +68° F (20° C)
- Mutual Capacitance — 4.6 pF/100 m at 1 kHz
- Nominal Velocity of Propagation — 78%
- Pinning — Straight-through T568B
- Resistance Unbalance — 2% at +68° F (+20° C) (max.)
- Temperature Ratings — Operating: -4° to +140° F (-20° to +60° C); Installation: +32° F to +122° F (0° to +50° C)

Item	Code
CAT 6A S/FTP Patch Cable, 26 AWG, Stranded, PVC, Blue	
3-ft. (0.9-ft.)	EVNSL741-0003
6-ft. (1.8-ft.)	EVNSL741-0006
10-ft. (3.0-ft.)	EVNSL741-0010
15-ft. (4.5-ft.)	EVNSL741-0015

## CAT 6A Shielded Jack

- Meets and exceeds CAT 6A requirements.
- Fully shielded to protect against EMI and alien crosstalk.
- Accepts shielded or foiled 22–24 AWG cable with a diameter of 0.196"– 0.354".
- To terminate, slip the cable through the stuffer cap. Lace the wires. Press onto the jack body. Close the outer butterfly doors. Secure with the cable tie.
- No punchdown tool needed.
- Feature RJ-45 to IDC terminal block connectors.
- Fits GigaStation2 Wallplates (below) and CAT 6A Patch Panel (facing page).
- **◆◆ WARRANTY** — Lifetime

### TECH SPECS

- Housing and Stuffer Cap — High-impact polycarbonate (PC resin), UL® 94V-0
- Insulation Diameter — 0.032" (0.8 mm) to 0.055" (1.4 mm)
- Overall Shield — Zinc alloy
- Pinning — Straight-through T568B
- Port — RJ-45 female

RoHS — Yes

Item	Code
CAT 6A Shielded Jack, Universal Wiring, 4-Pair	FMT700
◆ Includes the jack body, (1) stuffer cap, and (1) cable tie.	



## GigaStation2 Wallplates

- Hold CAT 6A Jacks (above).
- Rear-loading capability provides extra security at the workstation. Just snap in jacks from the back.
- Include paper labels with clear covers and color-matched covers.
- **◆◆ WARRANTY** — Lifetime



Item	Code
GigaStation2 Wallplates, Single-Gang 1-Port	Ivory WPT454 Office White WPT456 White WPT458
2-Port	Ivory WPT460 Office White WPT462 White WPT464
4-Port	Ivory WPT472 Office White WPT474 White WPT476

# CAT 6A Unshielded Solution

## 10-Gigabit CAT 6A Solid Bulk Cable (UTP)

### The backbone of your unshielded CAT 6A channel.

- Use with unshielded CAT 6A components for a 10GBASE-T channel.
- Exceeds TIA-568-C.2 Category 6 A standards.
- Provides component-compliant ANEXT performance.
- Delivers 10-GbE headroom beyond 750 MHz.

### Construction facts.

- Conductor: 23 AWG, solid-bare copper.
- Jacket: CMR: PVC; CMP: low-smoke PVC.
- Insulation: PVC: polyolefin. Plenum: fluoropolymer (FEP).
- Internal separator for optimal ANEXT performance.
- Interior wall of jacket features a ribbed pattern to control ANEXT.
- Insulation: PVC: polyolefin. Plenum: fluoropolymer (FEP).
- Both versions have a longitudinal rip cord for easy jacket opening.
- Easy-pull cable features reverse sequential numbering.

### Applications

- 10-GbE data centers:
  - Server to server.
  - Server to storage.
  - Server to switch.
- High-bandwidth network applications:
  - Distributed backbone.
  - Floor-to-floor backbone.
  - 10-GbE to the desktop.
  - Active zone cabling.
- PoE, PoE+:
  - WAP.
  - VoIP.
  - Security devices.
- High-bandwidth applications:
  - Video on Demand (VoD).
  - Real-time security surveillance.
  - High-res 3D modeling.
  - On-line publishing.
  - Broadband video.

### Compliance

- ANSI/TIA/EIA-568-C.2 Category 6 A.
- IEEE 802.3af (PoE) and IEEE 802.3at (PoE+).
- Exceeds IEEE 802.3an 10GBASE-T link segment.
- NEC Article 800 compliant.
- UL® verified Category 6 A.
- Third-party verified.
- RoHS.

- **◆◆ WARRANTY** — Lifetime

Item	Blue	White	Yellow	Gray	Green
10-Gigabit CAT 6A Solid Bulk Cable (UTP), 4-Pair, 1000-ft. (304.8-m)					
PVC, Riser	EYN10G10A-1000	EYN10G11A-1000	EYN10G12A-1000	EYN10G13A-1000	EYN10G14A-1000
Plenum	EYN10G00A-1000	EYN10G01A-1000	EYN10G02A-1000	EYN10G03A-1000	EYN10G04A-1000

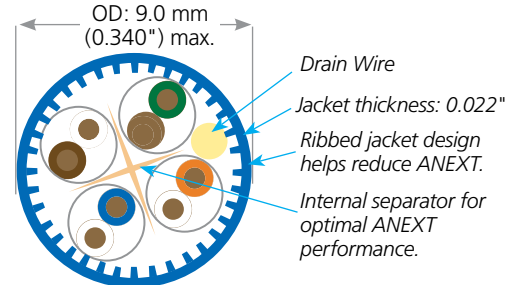
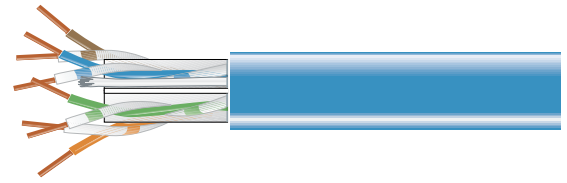
## GigaStation Wallplates

- Hold CAT 6A Jacks (facing page).
- Include paper labels with clear covers and color-matched covers.
- **◆◆ WARRANTY** — Lifetime

Rear-loading, snap-in ports provide extra security at the workstation.



Item	Code	
GigaStation2 Wallplates, Single-Gang 1-Port	Electric Ivory	WP454
	Office White	WP456
	White	WP458
2-Port	Electric Ivory	WP460
	Office White	WP462
	White	WP464
4-Port	Electric Ivory	WP472
	Office White	WP474
	White	WP476



## Buyer's Guide | Electrical Specifications/100 m

MHz	Insertion Loss (dB) Min.	NEXT (dB) Min.	PS-NEXT (dB) Min.	ACRF* (dB) Min.	PS-ACRF (dB) Min.	Return Loss (dB) Min.	Delay (ns) Max.
100	18.4	59.0	59.1	43.1	41.8	32.0	538
200	26.7	54.1	55.3	38.8	35.2	29.4	537
300	33.3	51.5	50.0	34.6	31.4	27.5	536
400	39.4	45.8	45.4	32.4	28.5	25.4	536
500	44.8	43.2	42.8	29.3	27.3	24.1	536

\* Attenuation to Crosstalk Ratio Far End (ACRF) we previously referred to as Equal-Level Far-End Crosstalk (ELFEXT).

## TECH SPECS

- Capacitance Unbalance (Max) — 330 pF/100 m max.
- Conductor — 4 pairs, 23 AWG solid bare copper
- Conductor Resistance — 9.38 ohms/100 m at 68° F (20° C)
- Characteristic Impedance — 100 MHz: 100 ± 15 ohms; 250 MHz: 100 ± 22 ohms; 500 MHz: 100 ± 32 ohms
- Delay Skew — 45 ns/100 m max.
- Insulation — PVC: polyolefin (PE); Plenum: fluoropolymer (FEP)
- Jacket — PVC or Low-smoke, flame-retardant LSOH/PVC
- Mutual Capacitance — 5.6 nF/100 at 1 KHz
- Nominal Velocity of Propagation — PVC: 68%; Plenum: 71%
- Outside Diameter — 0.355" (9.01 mm)
- Resistance Unbalanced — 3% max.
- Temperature Ratings — Operating: -4° to +122° F (-20° to +50° C); Storage: -40° to +140° F (-40° to +60° C); Installation: +32° F to +122° F (0° to +50° C)

## 10-Gigabit CAT 6A Patch Cable (UTP)



### Your data center and desktop connection.

- 10-Gigabit Ethernet (10-GbE) qualified.
- Maximum bandwidth exceeds 625 MHz.
- Category 6A ANEXT component compliant.
- Exceeds 10GBASE-T link segment requirements.
- Use for analog and digital (VoIP) voice and audio/video.

### Construction facts.

- Conductor: 26 AWG, stranded copper.
- Snagless hood design.
- Internal separator improves ANEXT.
- Jacket: PVC.
- Insulation: PVC: polyolefin.

## 10-Gigabit CAT 6A Patch Panels



JPM10G24:  
top: front view;  
bottom: rear view

- Has controlled Alien Crosstalk (ANEXT).
- PoE rated to four times the standard.
- Make fast, one-punch terminations.
- RJ-45 female to 110 punchdown.
- Accepts 22–26 AWG solid wire.
- Uses standard 1/2" x 1/2" labels.
- Sealed adapter protects circuit board from damage.

### Construction facts.

- Beryllium copper nose contacts have 50-microinch gold plating.
- 14-gauge steel rolled-edge construction.

### Compliance

- ANSI/TIA/EIA-568-C.2 Category 6 A.
- IEEE 802.3af (PoE) and IEEE 802.3at (PoE+).

## 10-Gigabit CAT 6A Jacks

- Support 10-Gigabit Ethernet applications to 328 feet (100 m).
- Usable bandwidth beyond 625 MHz.
- Category 6A ANEXT component compliant.
- Works with 22 and 24 AWG cable.
- Terminate with a 110 punchdown tool or the stuffer cap.
- Fits GigaStation2 Wallplates ([facing page](#)).

### Construction facts.

- RJ-45 female to 110 punchdown.
- Beryllium copper nose contacts have 50-microinch gold plating.
- Phosphor bronze IDC contacts.

### Compliance

- ANSI/TIA/EIA-568-C.2 Category 6A.
- IEEE 802.3af (PoE) and IEEE 802.3at (PoE+).
- RoHS

## TECH SPECS

- Cable Type** — 4-pair UTP
- Construction** — 26 AWG stranded
- Insulation** — Flame-retardant polyolefin
- Jacket** — PVC
- Plug** — Body: Polycarbonate UL® 94V-0; Boot: PVC
- Plating** — 50-microinch gold with 100-microinch underplating

### Compliance.

- ANSI/TIA/EIA-568-C.2 Category 6 A.
- IEEE 802.3af (PoE) and IEEE 802.3at (PoE+).
- Exceeds IEEE 802.3an 10GBASE-T link segment requirements.
- ISO/IEC 11801 2nd ed. Class E compliant.
- RoHS

- **WARRANTY** — Lifetime

Item	Code
10-Gigabit CAT 6A Patch Cable (UTP), 26 AWG, Stranded	
3-ft. (0.9-m)	EVNSL6A-003
5-ft. (1.5-m)	EVNSL6A-005
7-ft. (2.1-m)	EVNSL6A-007
10-ft. (3.0-m)	EVNSL6A-010
15-ft. (4.5-m)	EVNSL6A-015
20-ft. (6.0-m)	EVNSL6A-020

- ISO/IEC 11801 2nd ed. Class E compliant.
- IEC-603-7.
- UL® 1862.
- FCC part 68.5, subpart F
- RoHS

- **WARRANTY** Lifetime

Item	Code
10-Gigabit CAT 6A Patch Panels, 19", Universal Wiring	
24-Port, 1.75"H, 1U	JPM10G24
48-Port, 3.5"H, 2U	JPM10G48
◆ Includes (1) patch panel, a universal wiring insert, clear plastic label holders, and hardware.	



FM10G23



Front view



Rear view

- **WARRANTY** — Lifetime

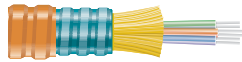
Item	Code
10-Gigabit CAT 6A Jacks	
Black	FM10G20
Blue	FM10G21
Gray	FM10G22
Off White	FM10G23
Orange	FM10G24
White	FM10G25

## Comprehensive Cabling and Infrastructure Solutions

Let Black Box help you deliver your next project under budget and ahead of schedule.

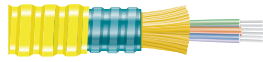


Explore our vast array of labor-saving solutions, including:



EXPIA35012A

Interlocking Armored Multimode Fiber Optic Cable



EXPIASM12A

Interlocking Armored Single-Mode Fiber Optic Cable



PP-SC-50MM-10G

Pre-Polished Fiber Connectors



40725

RapidRun™ Modular Audio/Video Cabling System

Learn more about our complete infrastructure portfolio.



Cabling Solutions



Cabinets & Racks



Testers & Tools



Power & Surge

Visit [blackbox.com/go/EC](http://blackbox.com/go/EC)

© Copyright 2011. Black Box Corporation. All rights reserved. Printed in U.S.A. Black Box®, the Double Diamond logo, GigaTrue®, and GigaBase® are registered trademarks, and Double Diamond™ is a trademark, of BB Technologies, Inc. Any third-party trademarks appearing in this publication are acknowledged to be the property of their respective owners.

BR00031-Channel\_6a\_v1

724-746-5500 | [blackbox.com](http://blackbox.com)