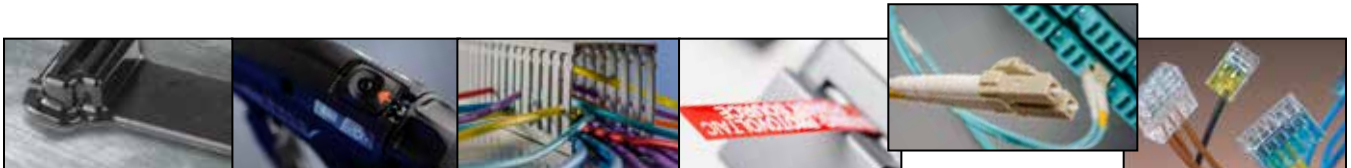




GST Connectivity Solutions



## Introduction

The HelaNet™ GST Connectivity line from HellermannTyton centers on the compact, high performance UTP RJ45 keystone connectors. Connector options include Category 6A, Category 6 and Category 5e UTP jacks which have been tested to exceed the latest published versions of ISO/IEC 1180 and ANSI/TIA/EIA 568C and offers backward compatibility.

Jacks are available in twelve color options, enabling identification and demarcation of different services such as voice, data, CCTV, etc. They can also be used to define different network paths, access paths or levels within the network (e.g. government or military installations), in accordance with TIA-606-A.

The GST solution includes a comprehensive range of modular panels, available in both flat and angled versions. GST jacks have a standard keystone mounting dimension which, when populated with our high-density GST panels, allows double density in 1U and 2U 19" panels.

HellermannTyton also offers tools that streamline field termination of GST jacks. The GST Termination tool crops and crimps jacks with a single action, while the Pocket Tool speeds lacing and enables terminating the jack when using a separate flush cutting tool. Terminations are fast and precise.



Available in 12 standard colors: Black, Blue, Brown, Office White, Green, Gray, Ivory, Orange, Red, Violet, White, and Yellow

## GST Jack

The performance optimized multi-layer PCB and contact set are central to the GST jack's design and create an ANSI/TIA-568-C.2 compliant solution.

The Category 6A jack is engineered with a contact set that cancels Near End Cross Talk at the point of insertion. The patented design provides capacitive compensation through a flexible PCB mounted onto the contact set.

Category 6A, 6 and 5e GST jacks use a wire manifold with an integrated lid which manages the twisted pairs, and provides strain relief for the cable. The angled wire entry allow for easier cable lacing while maintaining the twist in the pairs. The manifold requires the use of one of the proprietary HellermannTyton termination tools to complete the termination for the jack.

The design of the manifold and termination tools ensures a highly repeatable and controlled termination which contributes to the consistent electrical performance of the jack.



## Termination Tools

Flawless connections and rapid installation are critical on every job site. HellermannTyton offers proprietary tools that streamline terminating GST jacks, speeding the process and making it easier for technicians to ensure reliable data transmission connections.

The Pocket Tool assists in jack terminations and helps with lacing of the wires. The holder area of the Pocket Tool fits the GST jack body snug in place, while the alignment head supports the top of the jack during the termination. The Pocket Tool folds up for convenience and is an economic option that, like all HellermannTyton termination tools, is designed for durability and increasing installer productivity.

The GST Termination Tool cuts and terminates all eight wires at once, which is especially important for large projects. The rugged design will achieve over 30,000 terminations and the blades used to crop conductors will perform more than 10,000 terminations before needing to be replaced.



## Modular Panels

A variety of eight modular panels complements the Category 6A, 6 and 5e jack product set. The panel range comprises flat and angled panels in 1U 24, 1U 48, 2U 48 or 2U 72 ports. All panels have a labeling field for each individual jack, and are supplied unloaded.

Both modular panels are available in industry standard 1U and 2U versions as well as high density versions for those same footprints, up to 72 ports in a 2U footprint. The angled modular panels save rack space up to 50% by eliminating the need for additional cable management by directing the patch cords into the front vertical cable managers.



## Category 6A UTP Patch Cords

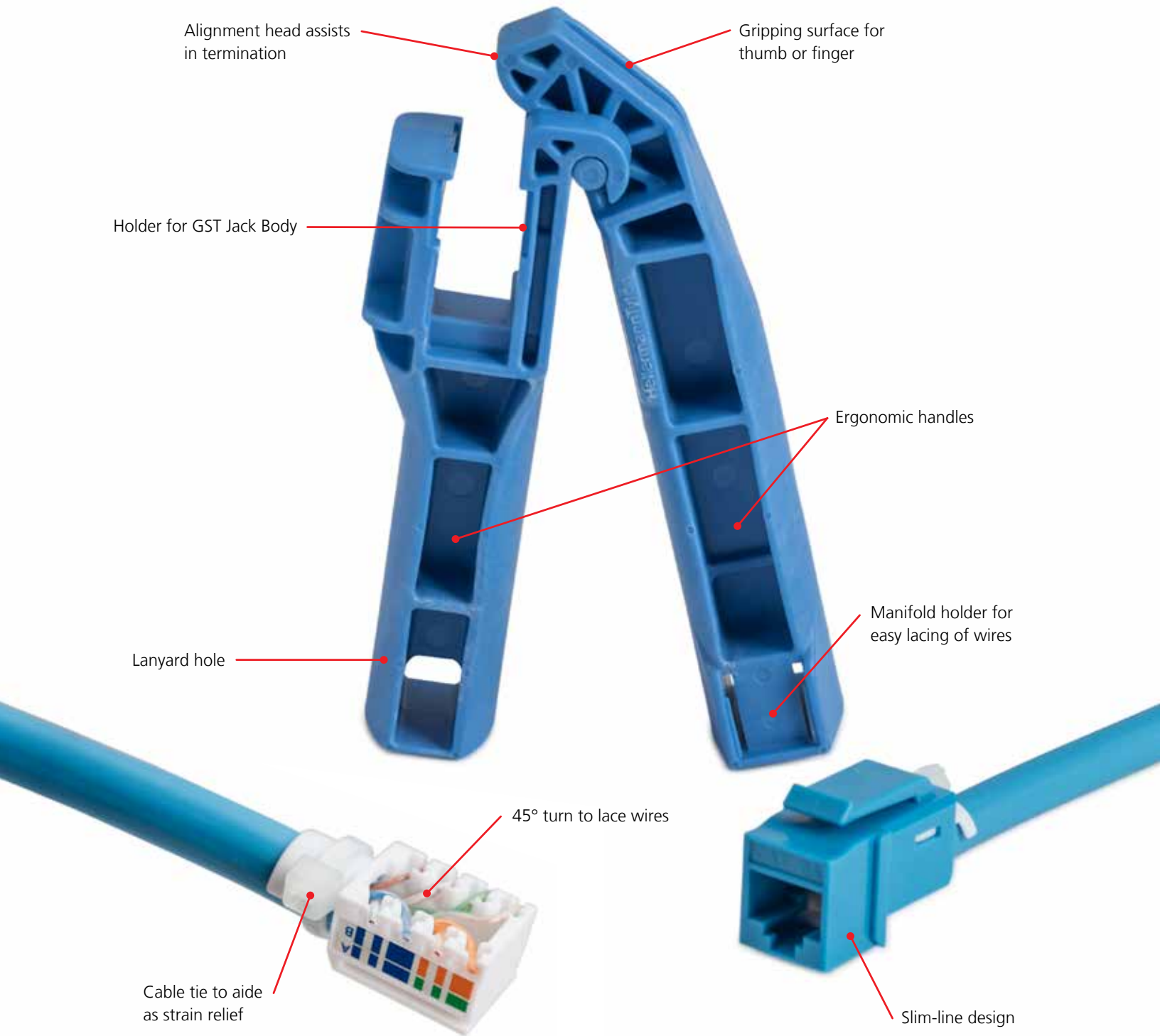
HellermannTyton Category 6A UTP patch cords are designed for robust performance, using F/UTP cable to provide AXT (Alien Crosstalk) protection for the channel. Terminated by low profile UTP RJ 45 plugs, the slim-line boot makes these cords ideal for high density patching, and prevent tangling and excessive bending while reducing stress on the cable. Patch cords are available in five standard lengths and are supplied in blue as standard. See our website for our full line of Category 6A, 6 and 5e patch cords.



### Warranty Information

The HellermannTyton Category 6A UTP Cabling Solution, HellermannTyton connectivity and Hitachi 6A UTP cabling, extends usable bandwidth up to 500 MHz for 10Base-T applications. Compliant with the ANSI/TIA-568-C.2 standard, HellermannTyton will warranty the Channel for Category 6A UTP Systems with our cable partner, Hitachi. HellermannTyton Category 6A UTP patch cords are required in order to provide a warranty-compliant channel. A certified HellermannTyton Installer must submit permanent link test results for all permanent links to be included in the Channel Warranty, together with evidence that HellermannTyton patch cords are being used throughout the system, as well as Hitachi cable.

## Pocket Tool Features



### GST Keystone Jacks

#### Category 6A GST Jacks

The HellermannTyton GST keystone jack provides a common termination method across Category 6A, Category 6 and Category 5e performance standards. The Category 6A patented contact design uses innovative alien crosstalk cancellation technology, ensuring industry leading performance. The slim-line design's reduced depth means there is more space at the rear of the module which allows for the higher bend radius required for large diameter cables and that they can be used in installation where shallow trunking is being used.

#### Features and Benefits

- The slim-line design of the jack allows for a maximum of 24 modules to be fitted into a standard 19" panel.
- Single termination design provides consistent, repeatable terminations.
- The wiring manifold incorporates both TIA 568A and B wiring schemes as well as strain relief for the cable.
- Configured to both TIA 568A and 568B wiring schemes for installation versatility.
- Exceeds Category 6A performance standards, providing the highest quality standards.
- Available in 12 colors for easy color coding identification.



PART NO.	Article No.	Description	Package Quantity	Carton Quantity
GSTJ6AU-BK	852-25103	GST Category 6A UTP Modular Keystone Jack, Black	1	50
GSTJ6AU-BL	852-25104	GST Category 6A UTP Modular Keystone Jack, Blue	1	50
GSTJ6AU-BR	852-25105	GST Category 6A UTP Modular Keystone Jack, Brown	1	50
GSTJ6AU-FW	852-25106	GST Category 6A UTP Modular Keystone Jack, Office White	1	50
GSTJ6AU-GN	852-25107	GST Category 6A UTP Modular Keystone Jack, Green	1	50
GSTJ6AU-GY	852-25108	GST Category 6A UTP Modular Keystone Jack, Gray	1	50
GSTJ6AU-IV	852-25109	GST Category 6A UTP Modular Keystone Jack, Ivory	1	50
GSTJ6AU-OR	852-25110	GST Category 6A UTP Modular Keystone Jack, Orange	1	50
GSTJ6AU-RD	852-25111	GST Category 6A UTP Modular Keystone Jack, Red	1	50
GSTJ6AU-VI	852-25112	GST Category 6A UTP Modular Keystone Jack, Violet	1	50
GSTJ6AU-WH	852-25113	GST Category 6A UTP Modular Keystone Jack, White	1	50
GSTJ6AU-YE	852-25114	GST Category 6A UTP Modular Keystone Jack, Yellow	1	50

Use Part No. for ordering. CAT 6A jacks are available in bulk packaging as a lead time item, e.g. GSTJ6AUB-BK.

# Network Connectivity

HelaNet™ Copper Solutions Category 6A

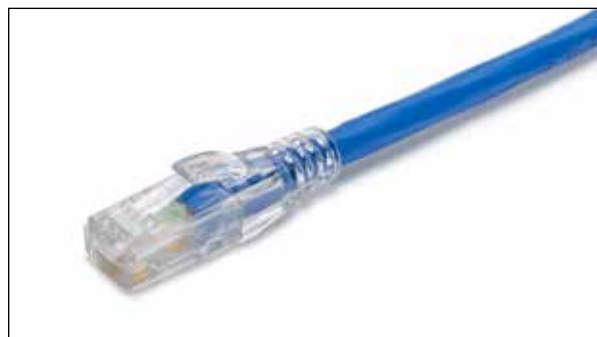
## Patch Cords

### Category 6A UTP Patch Cords

HellermannTyton Category 6A UTP patch cords are required in order to provide a warranty-compliant channel. All Category 6A UTP patch cords are designed to give high performance levels in the HellermannTyton Category 6A UTP solution.

### Features and Benefits

- The clear strain-relief boot helps prevent tangling and excessive bending while reducing stress on the cable.
- Slim-line boot makes these cords ideal for high density patching.



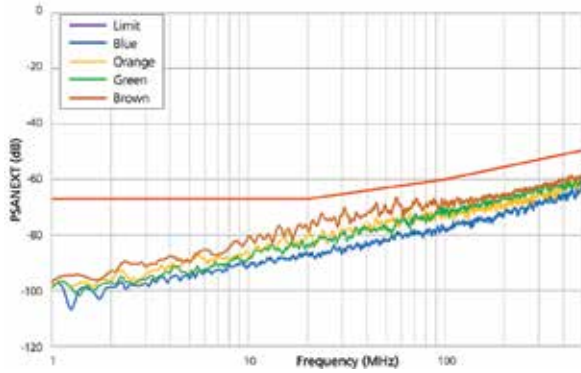
PART NO.	Article No.	Description	Package Quantity	Carton Quantity
PC6ABLU3	904-00760	Category 6A UTP Patch Cord, 3.0 ft, Blue	1	1
PC6ABLU5	904-00761	Category 6A UTP Patch Cord, 5.0 ft, Blue	1	1
PC6ABLU7	904-00762	Category 6A UTP Patch Cord, 7.0 ft, Blue	1	1
PC6ABLU10	904-00763	Category 6A UTP Patch Cord, 10.0 ft, Blue	1	1
PC6ABLU14	904-00764	Category 6A UTP Patch Cord, 14.0 ft, Blue	1	1
PC6ABLU25	904-00765	Category 6A UTP Patch Cord, 25.0 ft, Blue	1	1

Use Part No. for ordering.

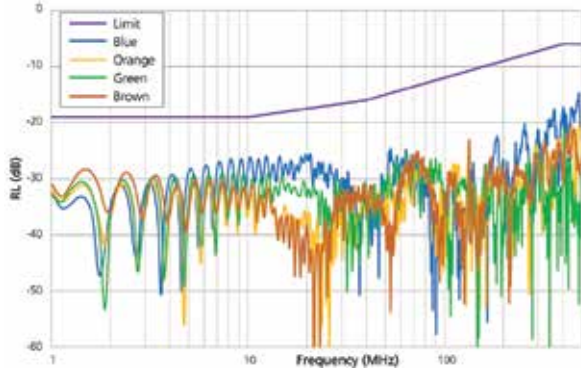
## PERFORMANCE

### Channel Performance

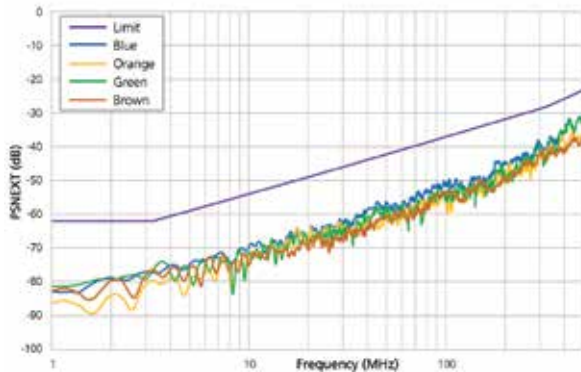
Channel - PowerSum Near End Crosstalk



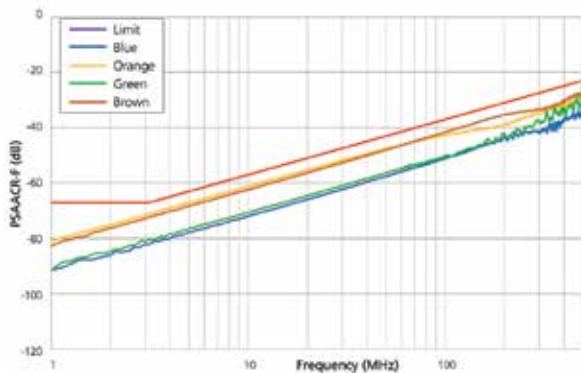
Channel - Return Loss



Channel - PowerSum Alien Near End Crosstalk

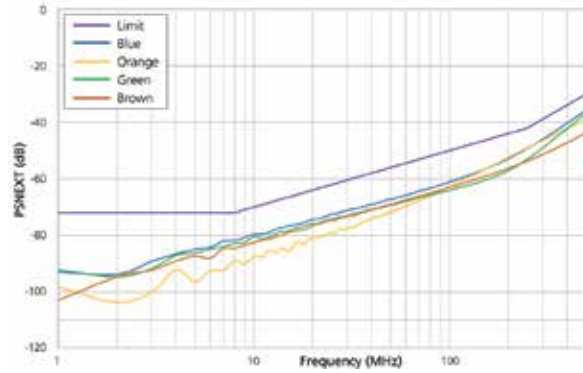


Channel - PowerSum Alien ACR-F

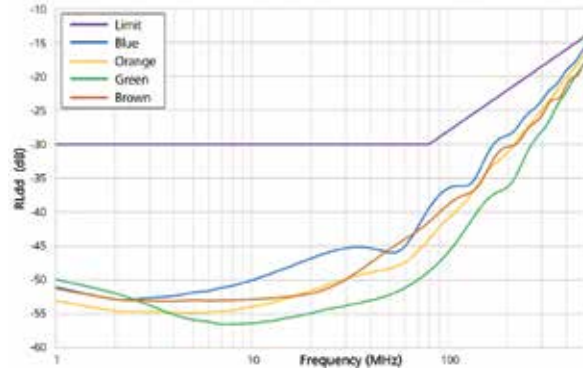


### Connecting Hardware Performance

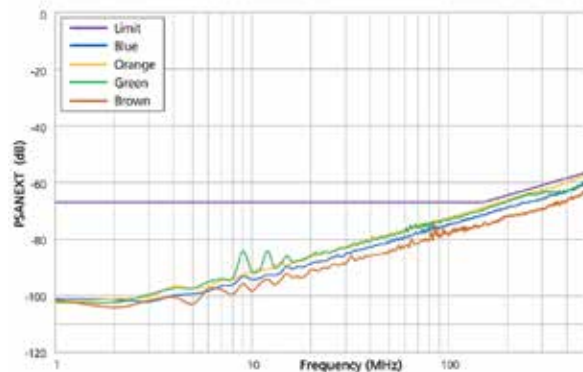
Connector - PowerSum Near End Crosstalk



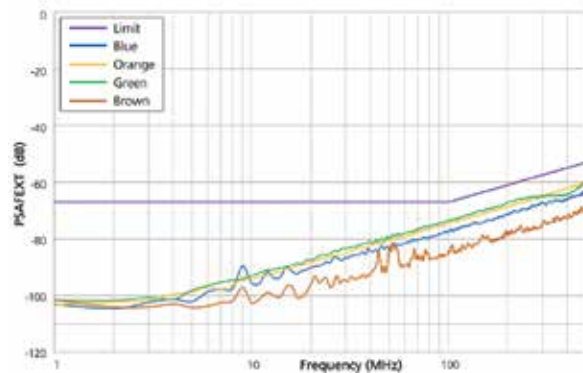
Connector - Return Loss



Connector - PowerSum Alien Near End Crosstalk



Connector - PowerSum Alien Far End Crosstalk



Channel data is shown for a 2 connector channel with a 90m link and 2m patch cords. Limit lines are shown to ANSI/TIA-568-C.2:2009.

# Network Connectivity

## HelaNet™ Copper Solutions Category 6 & 5e

### GST Keystone Jacks

#### Category 6 & 5e GST Jacks

The GST keystone jack provides a common termination method across Category 6A, Category 6 and Category 5e performance standards. The slim-line design's reduced depth means there is more space at the rear of the module which allows for the higher bend radius required for large diameter cables and that they can be used in shallow trunking applications.

#### Features and Benefits

- The slim-line design of the jack allows for a maximum of 24 modules to be fitted into a standard 19" panel.
- Single termination design provides consistent, repeatable terminations.
- The wiring manifold incorporates both TIA 568A and B wiring schemes as well as strain relief for the cable.
- Exceeds Category 6 & 5e performance standards, providing the highest quality standards.
- Available in 12 colors for easy color coding identification.



PART NO.	Article No.	Description	Package Quantity	Carton Quantity
<i>Category 6</i>				
<b>GSTJC6U-BK</b>	852-25115	GST Category 6 UTP Modular Keystone Jack, Black	1	50
<b>GSTJC6U-BL</b>	852-25116	GST Category 6 UTP Modular Keystone Jack, Blue	1	50
<b>GSTJC6U-BR</b>	852-25117	GST Category 6 UTP Modular Keystone Jack, Brown	1	50
<b>GSTJC6U-FW</b>	852-25118	GST Category 6 UTP Modular Keystone Jack, Office White	1	50
<b>GSTJC6U-GN</b>	852-25119	GST Category 6 UTP Modular Keystone Jack, Green	1	50
<b>GSTJC6U-GY</b>	852-25120	GST Category 6 UTP Modular Keystone Jack, Gray	1	50
<b>GSTJC6U-IV</b>	852-25121	GST Category 6 UTP Modular Keystone Jack, Ivory	1	50
<b>GSTJC6U-OR</b>	852-25122	GST Category 6 UTP Modular Keystone Jack, Orange	1	50
<b>GSTJC6U-RD</b>	852-25123	GST Category 6 UTP Modular Keystone Jack, Red	1	50
<b>GSTJC6U-VI</b>	852-25124	GST Category 6 UTP Modular Keystone Jack, Violet	1	50
<b>GSTJC6U-WH</b>	852-25125	GST Category 6 UTP Modular Keystone Jack, White	1	50
<b>GSTJC6U-YE</b>	852-25126	GST Category 6 UTP Modular Keystone Jack, Yellow	1	50
<i>Category 5e</i>				
<b>GSTJ5EU-BK</b>	852-25127	GST Category 5e UTP Modular Keystone Jack, Black	1	50
<b>GSTJ5EU-BL</b>	852-25128	GST Category 5e UTP Modular Keystone Jack, Blue	1	50
<b>GSTJ5EU-BR</b>	852-25129	GST Category 5e UTP Modular Keystone Jack, Brown	1	50
<b>GSTJ5EU-FW</b>	852-25130	GST Category 5e UTP Modular Keystone Jack, Office White	1	50
<b>GSTJ5EU-GN</b>	852-25131	GST Category 5e UTP Modular Keystone Jack, Green	1	50
<b>GSTJ5EU-GY</b>	852-25132	GST Category 5e UTP Modular Keystone Jack, Gray	1	50
<b>GSTJ5EU-IV</b>	852-25133	GST Category 5e UTP Modular Keystone Jack, Ivory	1	50
<b>GSTJ5EU-OR</b>	852-25134	GST Category 5e UTP Modular Keystone Jack, Orange	1	50
<b>GSTJ5EU-RD</b>	852-25135	GST Category 5e UTP Modular Keystone Jack, Red	1	50
<b>GSTJ5EU-VI</b>	852-25136	GST Category 5e UTP Modular Keystone Jack, Violet	1	50
<b>GSTJ5EU-WH</b>	852-25137	GST Category 5e UTP Modular Keystone Jack, White	1	50
<b>GSTJ5EU-YE</b>	852-25138	GST Category 5e UTP Modular Keystone Jack, Yellow	1	50

Use Part No. for ordering. CAT 6 & 5e jacks are available in bulk packaging as a lead time item, e.g. GSTJC6UB-BK and GSTJ5EUB-BK.



### Cable Management Tools and Accessories

#### Pocket Termination Tool

The Pocket Termination Tool helps with the lacing of the wires as well as terminating the jack. A built-in holder in the ergonomic handle holds the wiring manifold in place to make lacing the wires simple while maintaining the pair twists. After snipping the wires flush to the manifold with a diagonal cutter, the alignment guides on the manifold help guide it in the tool and with one simple, straightforward action, the jack is terminated.

#### Features and Benefits

- The Pocket Tool is designed to easily terminate all GST UTP Jacks by completing the termination process in one simple step.
- The ergonomic handles have a built-in manifold holder that provides easy lacing of the wires.
- Lanyard hole in the handle for easy tethering.



PART NO.	Article No.	Description	Package Quantity	Carton Quantity
HT-PT	904-00874	Pocket Termination Tool for GST Style UTP Jacks	1	1

*Use Part No. for ordering.*

#### GST Termination Tool

The patented GST termination tool is designed to terminate both UTP GST and Deca<sup>10</sup> FTP jacks through the use of interchangeable jaws. The single action crop and crimp tool is designed to be comfortable in the hand with a narrow reach and smooth action, alleviating strain when terminating multiple jacks.

#### Features and Benefits

- Single-action hand tool cuts and terminates all eight wires at once, speeding up the termination process.
- The jaws are color coded for ease of identification and the blades will perform in excess of 10,000 terminations.
- The tool is rugged and robust, achieving over 30,000 terminations.



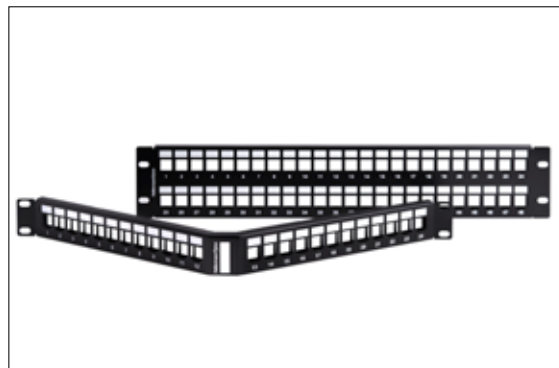
PART NO.	Article No.	Description	Package Quantity	Carton Quantity
HT-TT02U	854-40267	GST UTP Termination Tool	1	1
HT-TT02F	854-40268	GST FTP Termination Tool	1	1
HT-TT02D	854-40269	GST UTP/FTP Termination Tool	1	1
HT-TT02JF	854-40270	Replacement FTP Jaws GST Termination Tool, Blue	1	1
HT-TT02JU	854-40271	Replacement UTP Jaws GST Termination Tool, Red	1	1

*Use Part No. for ordering.*

## GST Patch Panels

### Modular and Angled Panels

The GST modular patch panel family is designed to accept HellermannTyton GST Series UTP modular keystone jacks. These modular panels and accessories can be mounted to any standard EIA 19 rack, cabinet or wall mount patch panel bracket. HellermannTyton pre-numbered modular patch panels are available in 24, 48 and 72 port configurations. Available in flat and angled versions.



### Features and Benefits

- The angled modular design conserves rack space by routing the patch cords directly into the vertical cable management eliminating the need for horizontal cable management.
- Angled design facilitates proper bend radii of the front patch cords and rear permanent link cables.
- Once the jacks are snapped into the panel, they are flush with the front of the plate providing an aesthetic look, allowing the jack colors and icons (C6A, C6, C5e) visible when in the panel.
- Designed to work with GST Series Jacks only.
- Clear screen printed labeling fields.

PART NO.	Article No.	Description	Package Quantity	Carton Quantity
<b>GSTPP-1U24SC</b>	853-50048	GST Modular Patch Panel 24 Port, 1U, Steel, Black	1	1
<b>GSTPP-1U48SC</b>	853-50049	GST Modular Patch Panel 48 Port, 1U, Steel, Black	1	1
<b>GSTPP-2U48SC</b>	853-50050	GST Modular Patch Panel 48 Port, 2U, Steel, Black	1	1
<b>GSTPP-2U72SC</b>	853-50069	GST Modular Patch Panel 72 Port, 2U, Steel, Black	1	1
<b>GSTAPP-1U24SC</b>	853-50051	GST Angled Modular Patch Panel 24 Port, 1U, Steel, Black	1	1
<b>GSTAPP-1U48SC</b>	853-50052	GST Angled Modular Patch Panel 48 Port, 1U, Steel, Black	1	1
<b>GSTAPP-2U48SC</b>	853-50053	GST Angled Modular Patch Panel 48 Port, 2U, Steel, Black	1	1
<b>GSTAPP-2U72SC</b>	853-50057	GST Angled Modular Patch Panel 72 Port, 2U, Steel, Black	1	1

Use Part No. for ordering.

## GST Patch Panels

### Blank Angled Panels and Covers

HellermannTyton offers a full line of accessories to complement the angled GST patch panel installation. Blanking Panels can be used within any standard rack or cabinet. Horizontal Covers offer a low profile option or a cover with an intrinsic 1U blanking panel.

### Features and Benefits

- Blank angled panels provide a filler for unused space within the rack or cabinet.
- Angled cover removes access to the rear cables preventing accidental tampering to the termination.
- Helps to maintain the correct airflow within the rack or cabinet.
- Cover incorporates a blank filler for unused space with the rack or cabinet to maintain airflow and/or reserve space for future utilization.



PART NO.	Article No.	Description	Package Quantity	Carton Quantity
APABP1USC	854-10048	Angled Patch Panel Blank, 1U, Black	1	1
APABP2USC	854-10051	Angled Patch Panel Blank, 2U, Black	1	1
APA-COVERLP	854-40275	Angled Patch Panel Cover for Top or Bottom Installation, 0U, Black	1	1
APA-COVER1USC	854-40274	Angled Patch Panel Cover for Top or Bottom Installation with 1U Blank, Black	1	1

Use Part No. for ordering.

## Cable Management Panel

### Horizontal Cable Manager

For a clean and simple solution to eliminating cable clutter on a relay rack, HellermannTyton offers a line of open cable management panels. Equipped on the front for 0U management for a standard panel and mounted on the back of an angled panel for rear 0U cable management.

### Features and Benefits

- Equipped with grip ties, this 19" panel provides a clean solution to organize patch cables.
- Mounts using the existing patch panel hardware to utilize the same rack space providing maximum efficiency of rack space.



PART NO.	Article No.	Description	Package Quantity	Carton Quantity
TFCM	859-35057	Front Cable Manager with Grip Ties, 1U, Black	1	1

Use Part No. for ordering.



**HellermannTyton North American  
Corporate Headquarters**

7930 N. Faulkner Rd, PO Box 245017  
Milwaukee, WI 53224-9517  
Phone: (414) 355-1130, (800) 537-1512  
Fax: (414) 355-7341, (800) 848-9866  
email: corp@htamericas.com  
www.hellermann.tyton.com

***TS16949, ISO 9001, and ISO14001 certified***

**HellermannTyton Canada**

Unit #4, 205 Industrial Parkway North  
Aurora, Ontario L4G 4C4 Canada  
Phone: (800) 661-2461  
Fax: (800) 390-3904  
email: sales@hellermannntyton.ca

**HellermannTyton Mexico**

Anillo Periferico Sur 7980 Edificio 6A  
Parque Industrial Tecnologico II  
Santa María Tequepexpan  
Tlaquepaque, Jalisco, Mexico 45601  
Phone: 011-52-33-3-133-9880  
Fax: 011-52-33-3-133-9861  
email: info@htamericas.com.mx

***ISO 9001 certified***

In addition to its corporate offices, HellermannTyton has three manufacturing facilities in Milwaukee, WI.