

# Clipsal Category 6/6+

<i>Clipsal Titanium<sup>®</sup> Patch Cord</i>	<i>Cat 6</i>
<i>Clipsal Titanium<sup>®</sup> Modular Jacks</i>	<i>Cat 6</i>
<i>Clipsal Titanium<sup>®</sup> Shuttered Modular Jacks</i>	<i>Cat 6+</i>
<i>Clipsal Titanium<sup>®</sup> Patch Panels</i>	<i>Cat 6</i>
<i>Clipsal Titanium<sup>®</sup> Shuttered Patch Panels</i>	<i>Cat 6+</i>
<i>Clipsal Titanium<sup>®</sup> Fully Featured Patch Panel</i>	<i>Cat 6+</i>
<i>Gigapro Voice and Data Block Cabling Solution</i>	<i>Cat 6</i>
<i>Gigapro Patch Cords</i>	<i>Cat 6</i>
<i>Shielded Cable</i>	<i>Cat 6</i>
<i>Shielded Patch Cord</i>	<i>Cat 6</i>
<i>Shielded Patch Panel</i>	<i>Cat 6</i>
<i>Shielded Modular Jacks</i>	<i>Cat 6</i>



# Clipsal Titanium® Category 6 Patch Cord



The Clipsal Titanium® Series Category 6 Patch Cord is a superior product delivering the best network performance when used in conjunction with other Clipsal Series Category 6 products.

The Patch Cord is constructed of high grade cable and quality RJ45 plugs, and is designed to operate up to 300MHz. This enables it to operate successfully in a Category 6 environment.

Patch cords are available in white and blue, with matching boots to help with circuit identification in the cabinet/rack.

As an integral part of the Clipsal Titanium® Series, this product has a lifetime warranty and system performance guarantee when installed by a Clipsal Certified Installer or Endorsed Partner.

## PRODUCT FEATURES:

- fully compliant to AS/NZS 3080:2003, ISO/IEC 11801 Edition 2 2002 and ANSI/TIA/EIA-568-B.Series Connecting Hardware Standards
- UL CMR fire rated jacketing
- PE insulation on conductors
- PVC outer jacket material
- Available in multiple lengths
- Backward compatible with Category 5 and 5e products
- Blue (BU) and White (WE)

## CUSTOMER BENEFITS:

- performs beyond the latest Category 6 International Standards
- comes in various lengths to assist with better cable management
- is backward compatible with Category 5 and 5e products, allowing component mixing without degrading the network below the minimum component category.

## TRANSMISSION SPECIFICATIONS

Parameter	Value (-dB)	Cat 6 (-dB)
NEXT	55.1	≥54.0
Power Sum NEXT	52.0	≥54.0
FEXT	49.8	≥43.1
Power Sum FEXT	46.9	≥40.1
Attenuation	0.1	≤0.2
Return Loss	27.0	≥23.0

## MECHANICAL CHARACTERISTICS

Cable	
Gauge	23 AWG with PE insulation, CMR fire rated
Pair Count	4 pair individually colour coded with filler and PVC jacket
Sequence	Wiring sequence 568 A/B
Durability	1000 mating cycles
RJ45 Plug	Polycarbonate, FCC Part68 Subpart F, UL 94V-0
Plug Boot	PVC
Contact Material	Phosphor bronze with 50 micro-inches gold over 100 micro-inches nickel

## ELECTRICAL

Dielectric Strength	1000 V RMS at 60 Hz for 1 minute
Voltage Rating	150 VAC maximum
Current Rating	1.5 A maximum
Insulation	500mΩ minimum
Contact Resistance	10mΩ maximum

## DIMENSIONS

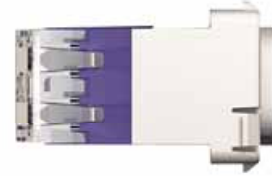
Shipping Weight	1.0 metre	7g/pack of one
	1.5 metre	11g/pack of one
	2.0 metre	14g/pack of one
	3.0 metre	20g/pack of one

CAT. NO.	DESCRIPTION	UL Cross-Ref No.
	RJ45 to RJ45 Patch Cord	
<b>RJ6A8/05PL,BU</b>	0.6m (2ft), Blue	CP103006
<b>RJ6A8/10PL,BU</b>	1.2m (4ft), Blue	CP103007
<b>RJ6A8/20PL,BU</b>	2.1m (7ft), Blue	CP103008
<b>RJ6A8/30PL,BU</b>	3.0m (10ft), Blue	CP103009
<b>RJ6A8/40PL,BU</b>	4.6m (15ft), Blue	CP103010
<b>RJ6A8/05PL,WE</b>	0.6m (2ft), White	CP103000
<b>RJ6A8/10PL,WE</b>	1.2m (4ft), White	CP103001
<b>RJ6A8/20PL,WE</b>	2.1m (7ft), White	CP103002
<b>RJ6A8/30PL,WE</b>	3.0m (10ft), White	CP103003
<b>RJ6A8/40PL,WE</b>	4.6m (15ft), White	CP103004

# Clipsal Titanium® Category 6 Modular Jacks



**30RJ88SMA6**



The Clipsal Datacomms Clipsal Titanium® range of products are the next generation of data communications solutions. Lead frame technology eliminates possible PC board failures, improves consistency in performance and exactly matches the work-area outlets. These modular jacks are colour coded for both 568A and 568B standards and can be terminated using a Clipsal GigaPro or Krone tool. Clear wire retaining caps are supplied and can be used to provide additional cable strain relief.

Combined with other Clipsal Titanium® or Professional Series Products, they are the perfect solution to your voice and data communications needs.

## PRODUCT FEATURES:

- fully compliant to AS/NZS 3080:2003, ISO/IEC 11801 Edition 2 2002 and ANSI/TIA/EIA-568-B.Series Connecting Hardware Standards
- backward compatible with Category 5 and 5e products
- flexible locking tabs (30 Mech Connectors)
- compatible with Clipsal GigaPro or Krone tool
- UL 94V-0 rated
- accepts solid 22-24 AWG diameter conductors

## COLOURS

White electric (WE), Black (BK), Soft Grey (SG), Green (GR), Red (RD), Yellow (YL) & Blue (BU).

## CUSTOMER BENEFITS:

- performs beyond Category 6 Standards
- various colours for easier circuit identification
- is backward compatible with Category 5 and 5e products, allowing component mixing without degrading the network below the minimum component category
- 30-Mech style fits all Clipsal Wall Plates (Australian, US and British), giving the customer access to the most popular plates on the market
- for use in Multi-user Telecommunication Outlet Applications (MUTO) and Consolidation Points (CP)
- flexible locking tabs allow for easy removal from Wall Plates (30 Mech)
- clear IDC caps that allow for termination verification and assist in cable retention.

## ELECTRICAL CHARACTERISTICS

Dielectric Strength	1,000V RMS at 60Hz for 1 minute
Current Rating	1.5Amp maximum
Insulation Resistance	200MΩ minimum
Contact Resistance	1mΩ per contact
Temperature Range	-40°C to +70°C
Transmission Performance	Exceeds ISO/IEC 11801 Class E AS/NZS 3080:2003 Class E

## MECHANICAL CHARACTERISTICS

### Modular Connector

RJ45 8-Pin Connector	FCC part 68, Subpart F and IEC-60603-7 compliant
Durability	1000 mating cycles
Material	Phosphor Bronze with 50 micro inches of gold over 100 micro-inches nickel plating

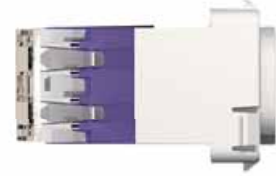
### IDC Connector

IDC Connector	Insulation slicing of 22 to 24 AWG (0.64 to 0.41mm)
Insulation Diameter (Wire)	0.70 - 1.40mm
Durability	10 insertions of any combination of wire gauge - two wires per slot
Connector Material	Phosphor Bronze with nickel plating

*IDC Body & Cover Material Fire-Retardant, UL 94V-0, Plastic*

CAT. NO.	DESCRIPTION
<b>30RJ88SMA6</b>	Category 6 Modular Jack 30-Mech
<b>RJ88SMA6</b>	Category 6 Modular Jack Keystone

# Clipsal Titanium® Category 6+ Shuttered Modular Jacks



## 30RJ88SMA6SH

The Clipsal Datacomms Clipsal Titanium® range of products are the next generation of data communications solutions. The Category 6+ shuttered modular jacks incorporate Clipsal's patented shutter mechanism. Combine this feature with lead frame technology, and you have the most technically advanced Category 6 connector on the market. These modular jacks are colour-coded for both 568A and 568B standards and can be terminated using a Clipsal GigaPro or Krone tool. Clear wire retaining caps are supplied and can be used to provide additional cable strain relief.

Combined with other Clipsal Titanium® or Professional Series Products, they are the perfect solution to your voice and data communications needs.

### PRODUCT FEATURES:

- aesthetic, contemporary design
- Clipsal's patented flush-faced, zero footprint shutter mechanism
- fully compliant to AS/NZS 3080:2003, ISO/IEC 11801 Edition 2 2002 and ANSI/TIA/EIA-568-B.Series Connecting Hardware Standards
- backward compatible with Category 5 and 5e products
- flexible locking tabs (30 Mech Connectors)
- compatible with Clipsal GigaPro or Krone tool
- UL 94V-0 rated
- accepts solid 22-24 AWG diameter conductors.

### COLOURS

White Electric (WE), Black (BK), Soft Grey (SG), Green (GR), Red (RD), Yellow (YL) & Blue (BU).

### CUSTOMER BENEFITS:

- performs beyond Category 6 Standards
- shutter mechanism is easy to operate, simply insert the plug lead into the jack
- protection from dust ingress, insect infestation and the insertion of foreign objects
- various colours for easier circuit identification
- is backward compatible with Category 5 and 5e products, allowing component mixing without degrading the network below the minimum component category
- 30-Mech style fits all Clipsal Wall Plates (Australian, US and British), giving the customer access to the most popular plates on the market
- for use in Multi-user Telecommunication Outlet Applications (MUTO) and Consolidation Points (CP)
- flexible locking tabs allow for easy removal from Wall Plates (30 Mech)
- clear IDC caps that allow for termination verification and assist in cable retention.

### ELECTRICAL CHARACTERISTICS

Dielectric Strength	1,000V RMS at 60Hz for 1 minute
Current Rating	1.5Amp maximum
Insulation Resistance	200MΩ minimum
Contact Resistance	1mΩ per contact
Temperature Range	-40°C to +70°C
Transmission Performance	Exceeds ISO/IEC 11801 Class E AS/NZS 3080:2003 Class E

### MECHANICAL CHARACTERISTICS

#### Modular Connector

RJ45 8-Pin Connector	FCC part 68, Subpart F and IEC 60603-7 compliant
Durability	1000 mating cycles
Material	Phosphor Bronze with 50 micro-inches of gold over 100 micro-inches nickel plating

#### IDC Connector

IDC Connector	Insulation slicing of 22 to 24 AWG (0.64 to 0.41mm)
Insulation Diameter (Wire)	0.70 - 1.40mm
Durability	10 insertions of any combination of wire gauge - two wires per slot
Connector Material	Phosphor Bronze with nickel plating

*IDC Body & Cover Material Fire-Retardant, UL 94V-0, Plastic*

CAT. NO.	DESCRIPTION
<b>30RJ88SMA6SH</b>	Category 6 Shuttered Modular Jack 30-Mech
<b>RJ88SMA6SH</b>	Category 6 Shuttered Modular Jack Keystone

# Clipsal Titanium® Category 6, 16 & 24 Port Patch Panels



**RJ6A1/16PP**



**RJ6A1/24PP**

The Clipsal Datacomms Clipsal Titanium® range of products are the next generation of data communications solutions. The Category 6 Patch Panels are a perfect combination of sleek looks and outstanding performance.

The 24 individual Category 6 keystone modular jacks incorporate lead frame technology, eliminating possible PC Board failures, improving consistency in performance, and exactly matching the work-area outlets. These modular jacks are colour coded for both 568A and 568B standards and can be terminated using a Clipsal GigaPro or Krone tool. Clear wire retaining caps are supplied and can be used to provide additional cable strain relief.

The sleek silver face of the product comprises three designation-strip holders with a label kit supplied. Rear cable management tray, velcro cable ties, cage nuts and screws are also provided with the product.

Combined with other Clipsal Titanium® or Professional Series Products, they are the perfect solution to your voice and data communications needs.

## PRODUCT FEATURES:

- aesthetic, contemporary design
- lead Frame Technology eliminates the possibility of PC Board failures
- powder-coated metal framework
- universal colour-coding for 568A and 568B standards
- removable rear cable management tray
- compatible with standard 19" equipment frames
- IDC termination using Clipsal GigaPro or Krone tool
- fully compliant to AS/NZS 3080:2003, ISO/IEC 11801 Edition 2 2002 and ANSI/TIA/EIA-568-B. Series Connecting Hardware Standards.

## CUSTOMER BENEFITS:

- contemporary design will improve the aesthetics of all installations
- better than Category 6 Performance
- complete with all mounting and cable fixing hardware
- rear cable management tray is supplied loose, allowing the installer to fit after termination
- the front labelling system provides a clear and efficient means of identifying circuits
- powder coated metal frame is robust and protects the patch panel from corrosion and scratching
- compliance with international standards gives the customer peace of mind that their network will perform to link, channel and application requirements.

## ELECTRICAL CHARACTERISTICS

Dielectric Strength	1,000V RMS at 60Hz for 1 minute
Current Rating	1.5Amp maximum
Insulation Resistance	200MΩ minimum
Contact Resistance	1mΩ per contact
Temperature Range	-40 °C to +70 °C
Transmission Performance	Exceeds ISO/IEC 11801 Class E AS/NZS 3080:2003 Class E

## MECHANICAL CHARACTERISTICS

### Modular Connector

RJ45 8-Pin Connector	FCC part 68, Subpart F and IEC-60603-7 compliant
Durability	1000 mating cycles
Material	Phosphor Bronze with 50 micro-inches of gold over 100 micro-inches nickel plating

### IDC Connector

IDC Connector	Insulation slicing of 22 to 24 AWG (0.64 to 0.41mm)
Insulation Diameter (Wire)	0.70 - 1.40mm
Durability	10 insertions of any combination of wire gauge - two wires per slot
Connector Material	Phosphor Bronze with nickel plating

*IDC Body & Cover Material Fire-Retardant, UL 94V-0, Plastic*

CAT. NO.	DESCRIPTION
<b>RJ6A1/16PP</b>	Category 6, 16 Port Patch Panel
<b>RJ6A1/24PP</b>	Category 6, 24 Port Patch Panel

# Clipsal Titanium® Category 6+ 16 & 24 Port Shuttered Patch Panels



**RJ6A1/16PPSH**



**RJ6A1/24PPSH**

The Clipsal Datacomms Clipsal Titanium® range of products are the next generation of data communications solutions. The Category 6+ Patch Panels are a perfect combination of sleek looks and outstanding performance.

The 24 individual Category 6+ keystone modular jacks incorporate Clipsal's patented shutter mechanism and lead frame technology, eliminating possible PC board failures, improving consistency in performance, and exactly matching the work-area outlets. These modular jacks are colour coded for both 568A and 568B standards and can be terminated using a Clipsal GigaPro or Krone tool. Clear wire retaining caps are supplied and can be used to provide additional cable strain relief.

The sleek silver face of the product comprises three designation-strip holders with a label kit supplied. Rear cable management tray, velcro cable ties, cage nuts and screws are also provided with the product.

Combined with other Clipsal Titanium® or Professional Series Products, they are the perfect solution to your voice and data communications needs.

## PRODUCT FEATURES:

- aesthetic, contemporary design
- shuttered outlets/ports
- lead frame technology eliminates the possibility of PC Board failures
- powder-coated metal framework
- universal colour-coding for 568A and 568B standards
- removable rear cable management tray
- compatible with standard 19" equipment frames
- IDC termination using Clipsal GigaPro or Krone tool
- fully compliant to AS/NZS 3080:2003, ISO/IEC 11801 Edition 2 2002 and ANSI/TIA/EIA-568-B. Series Connecting Hardware Standards.

## CUSTOMER BENEFITS:

- contemporary design will improve the aesthetics of all installations
- outlet shutters protect the contact pins from dust ingress, insect infestation and the insertion of foreign objects
- better than Category 6 Performance
- complete with all mounting and cable fixing hardware
- rear cable management tray is supplied loose, allowing the installer to fit after termination
- the front labelling system provides a clear and efficient means of identifying circuits
- powder coated metal frame is robust and protects the patch panel from corrosion and scratching
- compliance with international standards gives the customer peace of mind that their network will perform to link, channel and application requirements

## ELECTRICAL CHARACTERISTICS

Dielectric Strength	1,000V RMS at 60Hz for 1 minute
Current Rating	1.5Amp maximum
Insulation Resistance	200MΩ minimum
Contact Resistance	1mΩ per contact
Temperature Range	-40 °C to +70 °C
Transmission Performance	Exceeds ISO/IEC 11801 Class E AS/NZS 3080:2003 Class E

## MECHANICAL CHARACTERISTICS

### Modular Connector

RJ45 8-Pin Connector	FCC part 68, Subpart F and IEC-60603-7 compliant
Durability	1000 mating cycles
Material	Phosphor Bronze with 50 micro-inches of gold over 100 micro-inches nickel plating

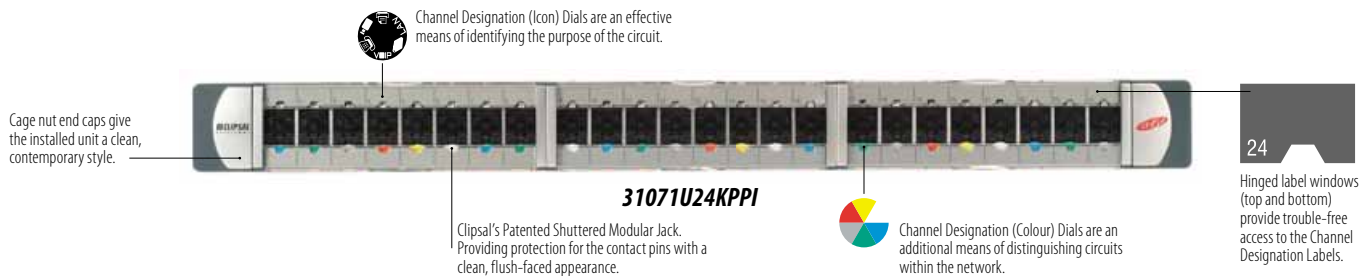
### IDC Connector

IDC Connector	Insulation slicing of 22 to 24 AWG (0.64 to 0.41mm)
Insulation Diameter (Wire)	0.70 - 1.40mm
Durability	10 insertions of any combination of wire gauge - two wires per slot
Connector Material	Phosphor Bronze with nickel plating

*IDC Body & Cover Material Fire-Retardant, UL 94V-0, Plastic*

CAT. NO.	DESCRIPTION
<b>RJ6A1/16PPSH</b>	Category 6, 16 Port Shuttered Patch Panel
<b>RJ6A1/24PPSH</b>	Category 6, 24 Port Shuttered Patch Panel

# Clipsal Titanium® Category 6+ 24 Port Fully Featured Patch Panel



The Clipsal Datacomms Clipsal Titanium® range of products are the next generation of data communications solutions. The Category 6+ fully featured patch panels are a perfect combination of sleek looks, outstanding performance and end user functionality.

The 24 individual Category 6+ keystone modular jacks incorporate Clipsal's patented flush faced, zero footprint design and lead frame technology, eliminating possible PC board failures, improving consistency in performance, and exactly matching the work area outlets. This product incorporates channel designation dials with icons for the top and colours for the bottom of each outlet. It also features hinged label windows (top and bottom) allowing for further identification of each channel designation.

Rear cable management tray, velcro cable ties, cage nuts and screws are also provided with the product.

Combined with other Clipsal Titanium® products, the Category 6+ fully featured patch panel provides the ultimate structured cabling solution.

## PRODUCT FEATURES:

- aesthetic, contemporary design
- shuttered outlets/ports
- top (icon) and bottom (colour) designated dials
- top and bottom hinged label windows for additional identification
- lead frame technology eliminates the possibility of PC board failures
- powder-coated metal framework
- universal colour-coding for 568A and 568B standards
- removable rear cable management tray
- compatible with standard 19" equipment frames
- IDC termination using Clipsal GigaPro or Krone tool
- fully compliant to AS/NZS 3080:2003, ISO/IEC 11801 Edition 2 2002 and ANSI/TIA/EIA-568-B. Series Connecting Hardware Standards.

## CUSTOMER BENEFITS:

- contemporary design will improve the aesthetics of all installations
- outlet shutters protect the contact pins from dust ingress, insect infestation and the insertion of foreign objects
- channel designation dials and hinged windows provide an extensive level of designation identification
- better than Category 6 Performance
- Complete with all mounting and cable fixing hardware
- rear cable management tray is supplied loose, allowing the installer to fit after termination
- powder coated metal frame is robust and protects the patch panel from corrosion and scratching
- compliance with international standards gives the customer peace of mind that their network will perform to link, channel and application requirements.

## ELECTRICAL CHARACTERISTICS

Dielectric Strength	1,000V RMS at 60Hz for 1 minute
Current Rating	1.5Amp maximum
Insulation Resistance	200MΩ minimum
Contact Resistance	1mΩ per contact
Temperature Range	-40 °C to +70 °C
Transmission Performance	exceeds ISO/IEC 11801 Class E AS/NZS 3080:2003 Class E

## MECHANICAL CHARACTERISTICS

### Modular Connector

RJ45 8-Pin Connector	FCC part 68, Subpart F and IEC-60603-7 compliant
Durability	1000 mating cycles
Material	Phosphor Bronze with 50 micro-inches of gold over 100 micro-inches nickel plating

### IDC Connector

IDC Connector	Insulation slicing of 22 to 24 AWG (0.64 to 0.41mm)
Insulation Diameter (Wire)	0.70 - 1.40mm
Durability	10 insertions of any combination of wire gauge - two wires per slot
Connector Material	Phosphor Bronze with nickel plating

IDC Body & Cover Material Fire-Retardant, UL 94V-0, Plastic

CAT. NO.	DESCRIPTION
31071U24KPPI	Category 6+ 24 Port Fully Featured Patch Panel

# Cat 6 GigaPro Voice and Data Block Cabling Solution

The Clipsal Professional Series Category 6 GigaPro Voice and Data Block Cabling Solution is a superior product delivering the best network performance when used in conjunction with other Clipsal Professional Series Category 6+ products.

The new solution allows for very high termination density while maintaining ease of administration for additions, moves and changes, providing the best performance-to-price ratio for high-performance connectivity.

The main feature of the solution is the Clipsal 25 pair IDC connector blocks available in 4 or 5 pair marked configurations. The connector blocks have a gas tight connection with the capability of using either Patch Cords or Jumper Wires. The IDC accepts 22-26 AWG (0.64mm - 0.4mm) conductors and are suitable for up to 200 insertions. Terminations are made using the GigaPro termination tool.

Connector Blocks are mounted onto the Clipsal GigaPro Wall Frame. Other features of the frame that are available as separate items include Designation Strip Label Holders, Conductor Clamps and Cable Management Rings.

As an integral part of the Clipsal Datacomms Solution, this product has a lifetime warranty and system performance guarantee when installed by a Clipsal Certified Installer or Endorsed Partner.

## PRODUCT FEATURES:

- performs beyond the ANSI/TIA/EIA-568-B.2 Category 6 Standard
- usable bandwidth to 300 MHz
- UL 94V-0 rated
- backward compatible with Category 3, 4, 5 and 5e products
- powdercoated Back Mount Wall Frame
- a high-density solution
- snap-on connector blocks
- a plastic front cover

## DIMENSIONS

### IDC CONNECTOR MODULE (12 PER BOX)

Shipping Box	95mm(H) x 250mm(W) x 160mm(D)
Shipping Weight	500g

### WALL FRAME (1 PER BOX)

Shipping Box	458mm(H) x 203mm(W) x 130mm(D)
Shipping Weight	3kg

## CUSTOMER BENEFITS:

- performs beyond the Category 6 Standard
- a Back Mounted Wall Frame that is powdercoated to provide protection against scratches and rust
- a high-density solution that not only saves valuable space but is also very cost effective
- is backward compatible with Category 3, 4, 5 and 5e products, allowing for component mixing without a degradation to the network below the minimum component category
- offers a Voice Solution through Category 6+ using either Jumper Wiring or Patch Cords - which amounts to complete flexibility for the customer
- the Back Mount allows for an easy "snap in" of the connector blocks, which makes installation easier and quicker
- built-in pair splitters for faster installation
- an optional plastic cover that protects the modules and provides a neat finish to the installation.



## TECHNICAL SPECIFICATIONS

Parameter	Value (-dB)	Cat 6 (-dB)
NEXT	58.9	≥54.0
PSNEXT	55.9	≥50.0
FEXT	58.8	≥43.1
PSFEXT	55.8	≥40.1
Attenuation	0.18	≤ 0.2
Return Loss	37.3	≥23.0

## ELECTRICAL CHARACTERISTICS

### IDC Connector Blocks

Dielectric Strength	1,000V RMS at 60Hz for 1 minute
Current Rating	1.5Amp maximum
Insulation Resistance	100MΩ minimum between clips
Contact Resistance	1mΩ per contact

## MECHANICAL CHARACTERISTICS

Connector Module Strength	Fire retardant thermoplastic rated 94V-0
Wire Gauge	22-26 AWG (0.64, 0.5 and 0.4 mm)
IDC Clip	Phosphor Bronze with tin plating over nickel
Durability	200 insertion cycles using any wire gauge

CAT. NO.	DESCRIPTION	UL Cross-Ref No.
<b>310725/5IDCB</b>	25 Pr IDC Connector block w/5 Pr marking, smoked white block	CP200103
<b>310725/4IDCB</b>	25 Pr IDC Connector block w/4 Pr marking, smoked white block	CP200105
<b>3107WMF300PR</b>	CP300 Pair Metal Wall Mount Frame	CP200100
<b>3107PDSLH</b>	Designation Strip Label Holder	CP200101
<b>3107PCCL</b>	Conductor Clamp	CP200102
<b>3107LCMR</b>	Cable Management Ring	CP200107
<b>3107WMF300C</b>	Cover to suit 300 Pair Wall Mount Frame	CP200404



# Cat 6 GigaPro Patch Cords



The Clipsal Gigapro Category 6 Patch Cords are superior products delivering the best network performance when used in conjunction with other Clipsal Professional Series Category 6+ products.

The Patch Cords are constructed of high grade (23 AWG) cable and quality RJ45 plugs and IDC patch connector plugs. They are designed to operate successfully in a Category 6 environment, while still being backwards compatible. GigaPro Patch Cords come in black with matching boots, plugs and connector bodies. They are available in four different lengths and in two different styles; IDC-to-IDC or IDC-to-RJ45 configurations. They are used for patching between Cross-Connect fields on the Clipsal GigaPro Voice and Data Block System in the Building Distributor (Main Distribution Frame) and the Floor Distributor (Telecommunications Room) in both horizontal distribution or equipment interface applications. Patching can also be performed using Jumper Wire.

As an integral part of the Clipsal Datacomms Solution, this product has a lifetime warranty and system performance guarantee when installed by a Clipsal Certified Installer or Endorsed Partner.

## PRODUCT FEATURES:

- performs beyond the Category 6 ANSI/TIA/EIA-568-B.2 Standard
- UL CMR fire rated jacketing
- PE insulation on conductors
- black PVC outer jacket material
- backward compatible with Category 5 and 5e products
- available in 4 lengths and 2 styles
- packed individually in plastic bags with header cards for some markets.

## CUSTOMER BENEFITS:

- performs beyond the Category 6 ANSI/TIA/EIA-568-B.2 Standard, providing customers with the satisfaction of having a compliant Category 6 channel
- is backward compatible with Category 5 and 5e products, allowing for component mixing without a degradation to the network below the minimum component category
- comes in various lengths to assist in better cable management.

## TECHNICAL SPECIFICATIONS

Parameter - channel performance	Value
Power Sum NEXT	≥42.0 dB
Attenuation	≥18.4 dB
Power Sum ACR	≥23.6 dB
PSELFEXT	≥25.0 dB
Return Loss	≥13.0 dB
Propagation Delay	490 ns
Delay Skew	25 ns

## ELECTRICAL CHARACTERISTICS

Dielectric Strength	1,000V RMS at 60Hz for 1 minute
Current Rating	1.5Amp maximum
Insulation Resistance	100MΩ minimum between IDC clips
Contact Resistance	3mΩ per contact

## JUMPER WIRE

DC Resistance	9.38Ω/100m maximum
Mutual Capacitance	6.6 nF/100m @ 1 KHz maximum
Characteristic Impedance	100Ω nominal

## MECHANICAL CHARACTERISTICS

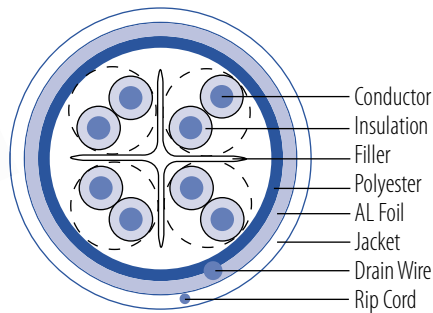
Plastic Housing	
IDC Housing	Fire-retardant thermoplastic rated UL94V-0, black
Modular Plug	8 pin modular plug, FCC part 68 subpart F compliant

## IDC CONNECTOR

Material	1 Phosphor bronze with tin plating over nickel
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CAT. NO.	DESCRIPTION	UL Cross-Ref No.
<b>IDC-IDC Patch cord</b>		
<b>3107IDCPC1M</b>	1.2 metre (4 ft.)	CP200340
<b>3107IDCPC2M</b>	2.1 metre (7 ft.)	CP200341
<b>3107IDCPC3M</b>	3.0 metre (10 ft.)	CP200342
<b>3107IDCPC4M</b>	4.6 metre (15 ft.)	CP200343
<b>IDC-RJ45 Patch Cord</b>		
<b>3107IDCRJP2M</b>	2.1 metre (7 ft.)	CP200331
<b>3107IDCRJP3M</b>	3.0 metre (10 ft.)	CP200332
<b>3107IDCRJP4M</b>	4.6 metre (15 ft.)	CP200333
<b>Jumper Wire</b>		
<b>31071PR5JW</b>	1 pair 24 AWG CAT.5	CP200201
<b>31074PR5EJW</b>	1 pair 24 AWG CAT.5e	CP200202
<b>31074PR6EJW</b>	4 pair 24 AWG CAT.6	CP200203

# Cat 6 Shielded Cable



The Clipsal Category 6 Shielded Cable is a superior product delivering the best network performance when used in conjunction with other Clipsal Category 6 Shielded products.

The cable is constructed of four pairs with solid and insulated copper conductors, in a foil screen and is UL CMR fire rated. It is designed for use in horizontal cabling and comes in a 305m roll.

As an integral part of Cat 6 Shielded series, this product has a lifetime warranty and system performance guarantee when installed by a Clipsal Certified Installer or Endorsed Partner.

## PRODUCT FEATURES:

- meets the Category 6 FTP ANSI/TIA/EIA-568-B Standard
- available in Grey and Blue sheath colours
- 305m (1000ft) roll
- suitable for horizontal cabling
- UL CMR Fire rated
- PE insulation, colour coded for 4 pairs
- PVC insulation for outer jacket.

## CUSTOMER BENEFITS:

- meets the Category 6 FTP ANSI/TIA/EIA-568-B Standard
- the cable roll allows for faster installations and ensures the prevention of any possible system degradation - both cost savers to the customer.

## CONSTRUCTION

Conductor	Solid Bare Copper
AWG	23
Conductor Diameter (+0.1mm)	0.574
Insulation	Foam PE
Average Thickness ( $\pm 0.03$ mm)	0.22
Min. Point Thickness (mm)	0.20
Insulation Diameter ( $\pm 0.03$ mm)	1.04
Twisting Lay Length (mm)	30 underneath
Cabling Lay Length ( $\pm 10$ mm)	140
Filler	PE Polyester
Drain Wire	Tinned Copper
AL Foil Jacket	PVC
Average Thickness ( $\pm 0.05$ mm)	0.48
Min. Point Thickness (mm)	0.43
Outer Diameter ( $\pm 0.2$ mm)	6.80
Rip Cord	per request Jacket
Weight (kg/km)	42

## DESCRIPTION

Rated Temperature ( $^{\circ}$ C)	75
Flammability Test	CM
Application	Horizontal Wiring in LAN
Reference Standard	UL Subject 444, ELIA/TIA 568 & ISO/IEC 111801

## DIMENSIONS

Shipping Box (mm)	280(H) x 305(W) x 255(D)
Shipping Weight	10 kg

## TRANSMISSION PERFORMANCE

Frequency (MHz)	Return Loss (dB)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB)
1	20.0	2.0	74.3	72
4	23.0	3.8	65.3	61
8	24.5	5.3	60.8	55
10	25.0	6.0	59.3	53
16	25.0	7.6	56.2	49
20	25.0	8.5	54.8	46
25	24.3	9.5	53.3	44
31.25	23.6	10.7	51.9	41
62.5	21.5	15.4	47.4	32
100	20.1	19.8	44.3	25
150	18.9	24.7	41.7	16.9
200	18.0	29.0	39.8	10.8
250	17.3	32.8	38.3	5.5

Frequency (MHz)	PSNEXT (dB)	ELFEXT (dB/100m)	PSELFEXT (dB/100m)	Delay (ns/100m)
1	72.3	67.8	64.8	570.0
4	63.3	55.8	52.8	552.0
8	58.8	49.7	46.7	546.7
10	57.3	47.8	44.8	545.4
16	54.2	43.7	40.7	543.0
20	52.8	41.8	38.8	542.0
25	51.3	39.8	36.8	541.2
31.25	49.9	37.9	34.9	540.4
62.5	45.4	31.9	28.9	538.6
100	42.3	27.8	24.8	537.6
150	39.7	24.3	21.3	536.9
200	37.8	21.8	18.8	536.5
250	36.3	19.8	16.8	536.3

## ELECTRICAL CHARACTERISTICS

1.0-100.0 MHz Impedance (Ohms)	100 $\pm$ 15
100-250M Hz Impedance (Ohms)	100 $\pm$ 22
1.0-250.0MHz Delay Skew (ns/100m)	$\leq$ 45
Pair-to-Ground Capacitance Unbalance (pF/100m)	$\leq$ 330
Max. Conductor DC Resistance 20 $^{\circ}$ C (Ohms/km)	73.2
Resistance Unbalance (%)	$\leq$ 5

## MECHANICAL CHARACTERISTICS

Test Object	Jacket
Test Material	PVC
Before Tensile Strength (Mpa)	$\geq$ 13.8
Aging Elongation (%)	$\geq$ 100
After Tensile Strength (Mpa)	$\geq$ 85% of unaged
Aging Elongation (%)	$\geq$ 50% of unaged
Cold Bend (-20 + 2 $^{\circ}$ C x 4hrs)	No crack

CAT. NO.	DESCRIPTION
2D4P6IPVFTP3	Cat6 FTP Cable, 305m roll

# Cat 6 Shielded Patch Cord



The Clipsal Category 6 Shielded Patch Cord is a superior product delivering the best network performance when used in conjunction with other Clipsal Category 6 Shielded products.

The Patch Cord is constructed of high grade cable and quality RJ45 plugs and is designed to operate up to 250MHz. This enables it to operate successfully in a Category 6 Shielded environment.

Patch cords are available in white and blue with matching boots to help with circuit identification in the Cabinet/Rack.

As an integral part of the CP6 Shielded series, this product has a lifetime warranty and system performance guarantee when installed by a Clipsal Certified Installer or Endorsed Partner.

## PRODUCT FEATURES:

- UL CMR Fire rated jacketing
- PE insulation on conductors
- PVC outer jacket material
- available in White and Blue
- available in multiple lengths.

## DIMENSIONS

Shipping Weight	1.0 metre	7g/pack of one
	1.5 metre	11g/pack of one
	2.0 metre	14g/pack of one
	3.0 metre	20g/pack of one

## CUSTOMER BENEFITS:

- performs to the latest proposed Category 6 FTP ANSI/TIA/EIA-568-B Standard. This provides customers with the satisfaction of having a fully compliant product
- comes in White and Blue for easier circuit identification and administration
- comes in various lengths to assist in better cable management.

## TRANSMISSION PERFORMANCE

Frequency (MHz)	Impedance (ohm)	Return Loss (dB)	Attenuation (dB/100m)	NEXT (dB)
1.0	100+/-15	20.0	2.4	74.3
4.0	100+/-15	23.0	4.6	65.3
8.0	100+/-15	24.5	6.4	60.8
10.0	100+/-15	25.0	7.2	59.3
16.0	100+/-15	25.0	9.1	56.2
20.0	100+/-15	25.0	10.2	54.8
25.0	100+/-15	24.2	11.5	53.3
31.25	100+/-15	23.3	12.9	51.9
62.5	100+/-15	20.7	18.6	47.4
100.0	100+/-15	19.0	23.9	44.3
200.0	100+/-22	16.4	35.0	39.8
250.0	100+/-22	15.5	39.4	38.3

Frequency (MHz)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)
1.0	72.3	67.8	64.8
4.0	63.3	55.8	52.8
8.0	58.8	49.7	46.7
10.0	57.3	47.8	44.8
16.0	54.2	43.7	40.7
20.0	52.8	41.8	38.8
25.0	51.3	39.8	36.8
31.25	49.9	37.9	34.9
62.5	45.4	31.9	28.9
100.0	42.3	27.8	24.8
200.0	37.8	21.8	18.8
250.0	36.3	19.8	16.8

## ELECTRICAL CHARACTERISTICS

AWG	23
Nominal Velocity Propagation	0.65

CAT. NO.	DESCRIPTION
<b>RJ6AB8/10PLF, BU</b>	Cat6 FTP 1m Patch Cord
<b>RJ6AB8/20PLF, BU</b>	Cat6 FTP 2m Patch Cord
<b>RJ6AB8/30PLF, BU</b>	Cat6 FTP 3m Patch Cord
<b>RJ6AB8/40PLF, BU</b>	Cat6 FTP 4m Patch Cord
<b>RJ6AB8/50PLF, BU</b>	Cat6 FTP 5m Patch Cord

# Cat 6 Shielded Patch Panel



The Clipsal Category 6 Shielded Patch Panel is a superior product delivering the best network performance when used in conjunction with other Clipsal Cat 6 Shielded products.

The Patch Panel is constructed from mild steel, with guides and support at the rear for neat cable entry.

The panel features an innovative grounding mechanism when used with Clipsal Cat 6 Shielded Modular Jacks, making grounding automatic and reducing installation time dramatically.

## CHARACTERISTICS:

- 19" Patch Panel flush mounted
- 24 x RJ45 ports on 1U
- weight 0.6kg
- suitable for Clipsal Cat6 FTP RJ88AB6FTP, WE jacks (17.5mm wide)
- automatic grounding of the FTP modular jacks
- RJ88AB6FTP
- cable organisation bar on the rear
- horizontal and vertical cabling
- (Category 5/Class D, Category 6/Class E).

## SPECIFICATIONS:

- Easy and tool-less mounting of the RJ45 jacks
- Connectors removable from the front and repositionable
- Numerical identification of the RJ45 ports from 1 to 24
- Options include Label Holder 3107PPLHFTP.

## DIMENSIONS

Width	19 inches (482.6 mm)
Height	1U (44.5mm)
Depth	93 mm

## MATERIALS

Steel with cathoporesis treatment, black satin finish and ABS/PC

## OPERATING TEMPERATURE RANGE

### Equipped Panel

Service: -40°C to +70°C (up to +65°C for continuous use)

CAT. NO.	DESCRIPTION
<b>31071U24FPPB</b>	Cat 6 FTP +1U 24 Port Panel
<b>3107PPLHFTP</b>	Label Holder, FTP Patch Panel, Strip for 6 RJ

# Cat 6 Shielded Modular Jacks



## APPLICATION

Horizontal and vertical cabling for Category 6/Class E applications in all Cat 6 FTP wall plates (E31SRJSI, E32SRJSI, E2031SRJSI & E2032SRJSI) in 24 port patch panel (31071U24FPPB)

## OPERATING TEMPERATURE

-40°C to +70°C (up to +65°C for an uninterrupted use)

## DIMENSIONS

Depth	37.65 mm
Width	17.6 mm
Height	25.5mm (with rear cover)

## SPECIFICATIONS

Installation process	Fast, reliable and easy thanks to the use of the dressing block and the installation tool (3107IDCPDTF)
Earthing	Automatically done when the connector is plugged onto the FTP patch panel. Automatic contact of the earthing drain on the RJ45 body.

## PERFORMANCE

Category 6 connecting hardware requirements according to ISO/IEC 111801: 2002, EN 50173-1: 2002, ANSI/TIA/EIA-568-B.2-1

## MECHANICAL CHARACTERISTICS

### Materials

Housing	Bayblend with 3 layers metallisation (Ni, Cu, Ni)
Dressing Block	Polyamide
Contacts	Copper Alloy
Plating:	Gold over full Nickel
Max. diameter on the core insulation 1.45mm to fit into the dressing block channels	

### Conductor range acceptance

Type Single	Core
Min. diameter	0.45mm
Max. diameter	0.64mm

## ELECTRICAL CHARACTERISTICS

Contact Resistance	<20mΩ
Insulation Resistance	>5GΩ
Shielding Resistance	<20mΩ
Propagation Delay	1.0ns
Skew Delay	0.4ns
Transfer Impedance	25mΩ@1 Mhz (Acc to IEC 96-1) 160mΩ@1 Mhz (Acc to IEC 96-1)
Operating Voltage Ueff	125V
Dielectric Withstand Voltage	1000V

## TRANSMISSION PERFORMANCE

Frequency (Mhz)	NEXT (dB)	PS-NEXT (dB)	FEXT (dB)
1	>75.0	>71.0	>75.0
4	>75.0	>71.0	>71.1
10	>74.0	>70.0	>63.0
16	>69.9	>65.9	>59.0
20	>68.0	>64.0	>57.1
31.25	>64.1	>60.1	>53.2
62.5	>58.1	>54.1	>47.2
100	>54.0	>50.0	>43.1
200	>48.0	>44.0	>37.1
250	>46.0	>42.0	>35.1

Frequency (Mhz)	PS-FEXT (dB)	Return Loss (dB)	Insertion Loss (dB)
1	>72.0	>30.0	<0.10
4	>68.1	>30.0	<0.10
10	>60.1	>30.0	<0.10
16	>56.0	>30.0	<0.10
20	>54.1	>30.0	<0.10
31.25	>50.2	>30.0	<0.11
62.5	>44.2	>28.1	<0.16
100	>40.1	>24.0	<0.20
200	>34.1	>18.0	<0.28
250	>32.1	>16.0	<0.32

Category 6 limits taken from ANSI/TIA/EIA-568-B.2-1 connecting hardware requirements, minimum performance of the connector when measured with a test plug as defined in the standard.

(Especially de-embedded method for the NEXT and FEXT parameters)

CAT. NO.	DESCRIPTION
RJ88AB6FTP, WE	Cat 6 FTP Modular Jack, White
3107IDCPDTF	Cat 6 FTP Modular Jack, Installation Tool