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Communication Markets Division

3M™ Category 6 Copper Structured Cabling System

3M™ RJ45 Category 6 Jacks UTP PL

3M™ Copper Patch Cords

3M™ Copper Patch Panels

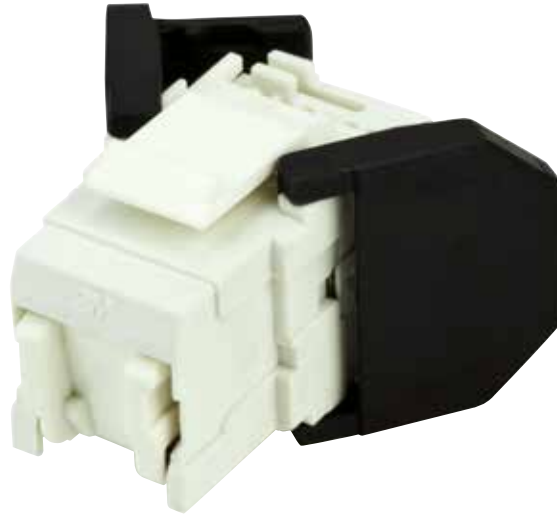
3M™ Faceplates & Wall Outlets

3M™ Copper Cable

3M™ RJ45 Category 6 Jacks

3M Category 6 copper interconnect products work together to provide an easy-to-use solution for deploying high-speed connections throughout a building. The 3M™ RJ45 Jack is a key component in this system.

The jack's unique two cable entry points help make installation simple. The traditional one-click design enables an easy, tool-less termination on shielded cables, meeting industry performance standards.



Feature	Benefit
Tool-less jack	Easy and quick to install. Fast, reliable connection. All 8 copper conductors are wired in a single operation. Quality of connection by design: just listen for the click.
Two cable entry points	Easier cable management. More space and flexibility to ensure the cable minimum bend radius is not compromised. Enables a wide range of cable routing options. Easy to use in tight spaces. Just one product for all applications
Reusable	If a wiring mistake is made, there is no need to use a new jack, which means virtually no wasted inventory.
Clip-in mounting	RJ45 modular jack design can fit many other accessories on the market using the standard clip-in mounting.
Accepts both AWG 26-22 solid and stranded conductors	Compatible with many cables on the market and enables "jack to plug" cables to be manufactured using stranded conductors (for use in open office architectures).
Integral shutter	Increased dust protection, especially during installation or in a dirty environment. No additional shuttering required on faceplates.

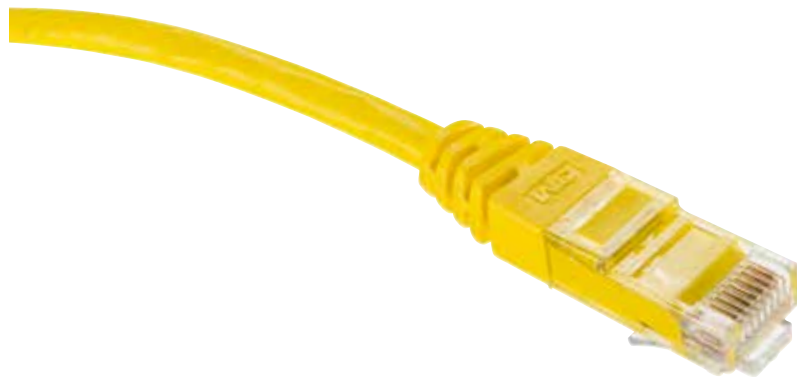
Specifications	
Standards compliance	Use in permanent links with dedicated cable types results in compliance to ISO/IEC 11801:2011 or EN 50173-1:2011 Class EA and Category 6A ANSI/TIA 568-C.2:2009
Electrical performance Operating voltage Lead through resistance Insulation resistance	< 75 VDC < 200 MΩ > 500 MΩ
Environmental compliance Operating temperature	-10° C to 60° C (14° F to 140° F)
Mechanical specifications Conductor diameter Max. diameter of wire insulation Protection contacts	Solid wires: 0.50 to 0.65 mm (26-22 AWG) 1.6 mm 0.5 μm in contact zone

3M™ RJ45 Jack Ordering Information

Product Number	Description	3M ID	Min. Order
VOL-OCK6U-8	3M RJ45 Cat. 6 UTP Jack, white	FQ-1000-3125-8	6 bags of 8 each
VOL-OCK6U-V	3M RJ45 Cat. 6 UTP Jack, white	FQ-1000-3124-1	1 bulk pack of 480
VOL-OCK6U-BK8	3M RJ45 Cat. 6 UTP Jack, black	FQ-1000-3120-9	6 bags of 8 each
VOL-OCK6U-BKV	3M RJ45 Cat. 6 UTP Jack, black	FQ-1000-3126-6	
VOL-OCK6U-BL8	3M RJ45 Cat. 6 UTP Jack, blue	FQ-1000-3116-7	6 bags of 8 each
VOL-OCK6U-G8	3M RJ45 Cat. 6 UTP Jack, green	FQ-1000-3117-5	6 bags of 8 each
VOL-OCK6U-R8	3M RJ45 Cat. 6 UTP Jack, red	FQ-1000-3118-3	6 bags of 8 each
VOL-OCK6U-Y8	3M RJ45 Cat. 6 UTP Jack, yellow	FQ-1000-3119-1	6 bags of 8 each

3M™ Category 6 Copper Patch Cords

3M™ Copper Patch Cords help enable you to complete your network to Category 6 according to ANSI/TIA 568-C.2 and Class E ISO 11801/EN 50173-1. They are constructed with UTP stranded cable, LSZH or PVC jacket and protected latch to ensure durability. These patch cords are available in a variety of lengths and colors for easy cable management and administration.



Feature	Benefit
“Snag-less” boot protects latch	Better mechanical protection helps prevent breaks so the cords last longer
Various lengths and colors	Options to complete systems to your requirements
Low smoke zero halogen cable	Meets flame requirements for low flammability and low toxicity

Specifications	
Standards	ANSI/TIA 568-C.2 ISO/IEC 11801 Edition 2.2 EN 50173-1
Electrical performance Cable impedance Insulation Resistance (500 V) Test Voltage (DC, 1 min) NPV (nominal) Current Rating Voltage Rating	100 Ω ≥ 500 M Ω/km 100-500 V 78% 1.5A (maximum) 75 V
Environmental compliance Fire performance Operating temperature Transport and storage temperature	IEC 60332-1, IEC 61034-2, IEC 60754-1, IEC 60754-2 20°C to 60°C 0°C to 50°C
Mechanical specifications Cable diameter (OD) Copper diameter Minimum bend radius	5.50 +/- 0.30 (mm) Wire gauge AWG 27 (0.36 mm) Static bending: 4xOD Dynamic bending: 8xOD

3M™ Category 6 Copper Patch Cords (24 AWG, UTP)

Product number	Jacket	Colour	Length	MOQ	Order Increment each	3M ID	Order ID
VOL6UDLL1B	LSZH	Blue	1	12		UU-0080-7134-0	7100105011
VOL6UDLL2B	LSZH	Blue	2	12		UU-0080-7136-5	7100104983
VOL6UDLL3B	LSZH	Blue	3	12		UU-0080-7138-1	7100105108
VOL6UDLL5B	LSZH	Blue	5	6		UU-0080-7211-6	7100105110
VOL6UDLL1GR	LSZH	Green	1	12		UU-0080-7135-7	7100105038
VOL6UDLL2GR	LSZH	Green	2	12		UU-0080-7137-3	7100105039
VOL6UDLL3GR	LSZH	Green	3	12		UU-0080-7140-7	7100105109
VOL6UDLL5GR	LSZH	Green	5	6		UU-0080-7277-7	7100105111
VOL6UDLL1G	LSZH	Grey	1	12		UU-0080-7393-2	7100105112
VOL6UDLL2G	LSZH	Grey	2	12		UU-0080-7412-0	7100105104
VOL6UDLL3G	LSZH	Grey	3	12		UU-0080-7417-9	7100105118
VOL6UDLL5G	LSZH	Grey	5	6		UU-0080-7446-8	7100105134
VOL6ULL10G	LSZH	Grey	10	2		UU-0080-7469-0	7100105486
VOL6UDLL1R	LSZH	Red	1	12		UU-0080-7394-0	7100105033
VOL6UDLL2R	LSZH	Red	2	12		UU-0080-7413-8	7100105105
VOL6UDLL3R	LSZH	Red	3	12		UU-0080-7418-7	7100105119
VOL6UDLL5R	LSZH	Red	5	6		UU-0080-7447-6	7100105332
VOL6UDLL1T	LSZH	Turquoise	1	12		UU-0080-7395-7	7100105377
VOL6UDLL2T	LSZH	Turquoise	2	12		UU-0080-7414-6	7100105117
VOL6UDLL3T	LSZH	Turquoise	3	12		UU-0080-7443-5	7100105123
VOL6UDLL5T	LSZH	Turquoise	5	6		UU-0080-7448-4	7100105133
VOL-6UL-L7	LSZH	Turquoise	7	3		FQ-1000-7203-9	7000079037
VOL-6UL-L10	LSZH	Turquoise	10	2		FQ-1000-7204-7	7000079038
VOL-6UL-L15	LSZH	Turquoise	15	1		FQ-1000-7277-3	7000079083
VOL6ULL20	LSZH	Turquoise	20	1		FQ-1000-7299-7	7000079086
VOL6UDLL1W	LSZH	White	1	12		UU-0080-7396-5	7100105040
VOL6UDLL2W	LSZH	White	2	12		UU-0080-7415-3	7100104984
VOL6UDLL3W	LSZH	White	3	12		UU-0080-7444-3	7100105124
VOL6UDLL5W	LSZH	White	5	6		UU-0080-8379-0	7100105135
Cat. 6 100 Ohms Patch Cord	LSZH	White	10	2		FQ-1000-7264-1	7000079080
VOL6UDLL1Y	LSZH	Yellow	1	12		UU-0080-7411-2	7100105116
VOL6UDLL2Y	LSZH	Yellow	2	12		UU-0080-7416-1	7100105106
VOL6UDLL3Y	LSZH	Yellow	3	12		UU-0080-7445-0	7100105125
VOL6UDLL5Y	LSZH	Yellow	5	6		UU-0080-7449-2	7100105126
VOL6UDPL1T	PVC	Turquoise	1	12		UU-0080-7462-5	7100105328
VOL6UDPL2T	PVC	Turquoise	2	12		UU-0080-7464-1	7100105330
VOL6UDPL3T	PVC	Turquoise	3	12		UU-0080-7466-6	7100105338
VOL6UDPL5T	PVC	Turquoise	5	6		UU-0080-7468-2	7100105136
VOL-6UP-L7	PVC	Turquoise	7	3		FQ-1000-7230-2	7000079053
VOL-6UP-L10	PVC	Turquoise	10	2		FQ-1000-7231-0	7000079054
VOL-6UP-L15	PVC	Turquoise	15	1		FQ-1000-7263-3	7000079079
VOL6UDPL1G	PVC	Grey	1	12		UU-0080-7450-0	7100105327
VOL6UDPL2G	PVC	Grey	2	12		UU-0080-7463-3	7100105329
VOL6UDPL3G	PVC	Grey	3	12		UU-0080-7465-8	7100105331
VOL6UDPL5G	PVC	Grey	5	6		UU-0080-7467-4	7100105337

3M™ Patch Panels

3M™ Copper Patch Panels are modular and provide an aesthetically pleasing solution for housing modular jacks. These lightweight, aluminum panels are compatible with 3M™ RJ45 Jacks as well as typical industry accepted modular jacks. The classic version include a cable strain relief tray and earth connection point. The Eco panels are a simple version, without earth connection point to use with racks with integral cable management. In the classic version the panel automatically provides earth connection to FTP or STP jacks upon insertion into patch panel. The panels include screws, cage nuts and cable ties. Port blanking and colored identification caps are available. The range includes a patch cord management panel with five management rings.

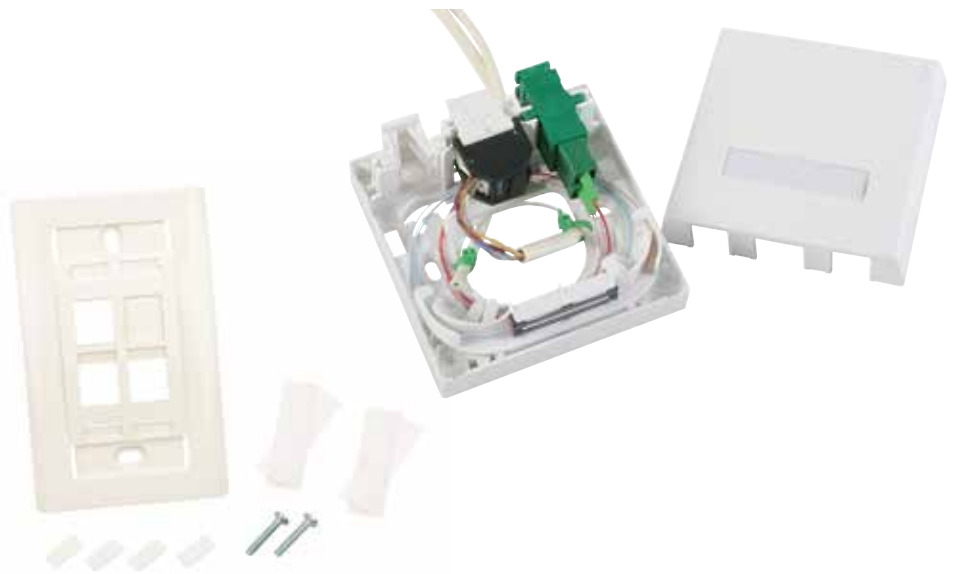


3M™ Copper Patch Panels Ordering Information

Product Number	Description	3M ID	Order ID
VOL-PPCB-F16-K	16 ports, 19" x 1U x 100 mm, black aluminum	UU-0016-2287-5	7100053785
VO-LPPC-BV-16K	16 ports, 19" x 1U x 100 mm, black aluminum with locking system	UU-0016-2294-1	7100053855
VO-LPPC-AF-16K	16 ports, 19" x 1U x 100 mm, brushed aluminum	UU-0016-2291-7	7100053852
VOL-PPUD-F16-K	16 ports, 19" x 1U x 11 mm, black aluminum, Eco version, UTP only	UU-0016-2285-9	7100053857
VOL-PPCB-F24-K	24 ports, 19" x 1U x 100 mm, black aluminum	UU-0016-2288-3	7100053859
VOL-PPCB-V24-K	24 ports, 19" x 1U x 100 mm, black aluminum with locking system	UU-0016-2295-8	7100053951
VOL-PPCA-F24-K	24 ports, 19" x 1U x 100 mm, brushed aluminum	UU-0016-2270-1	7100054000
VOL-PPUD-F24-K	24 ports, 19" x 1U x 11 mm, black aluminum, Eco version, UTP only	UU-0016-2286-7	7100053858
VOL-PPCB-F32-K	32 ports, 19" x 2U x 118 mm, black aluminum	UU-0016-2289-1	7100053786
VOL-PPCA-F32-K	32 ports, 19" x 2U x 118 mm, brushed aluminum	UU-0016-2292-5	7100053853
VOL-PPCB-HD-F32K	32 ports, 19" x 1U x 118 mm, black aluminum, high density	UU-0016-2296-6	7100053856
VOL-PPCB-F48-K	48 ports, 19" x 2U x 118 mm, black aluminum	UU-0016-2290-9	7100053851
VOL-PPCA-F48-K	48 ports, 19" x 2U x 118 mm, brushed aluminum	UU-0016-2293-3	7100053854
VOL-PPCB-A24K	24 ports, 19" x 1U x 171 mm, angled, black aluminum (91 mm back depth, 80 mm front depth)	DE-6200-4578-6	7000145715
VOL-P334-10-AA	19" 1U patch cord management panel with 5 plastic rings, black steel	FQ-1000-2224-0	7100023170
VOL-0300	Blank port insert, white	80-6110-2039-9	7000058532
VOL-0300BK	Blank port insert, black	80-6110-2073-8	7000058535
VOL-PCC-B	Blue port cap for RJ45 patch panel (bag of 8)	FQ-1000-2061-6	7000078622
VOL-PCC-Y	Yellow port cap for RJ45 patch panel (bag of 8)	FQ-1000-2062-4	7000078623
VOL-PCCR	Red port cap for RJ45 patch panel (bag of 8)	FQ-1000-2063-2	7000078624
VOL-PCC-G	Green port cap for RJ45 patch panel (bag of 8)	FQ-1000-2064-0	7000078625
VOL-PEC-B	Blue port cap and label holder for RJ45 patch panel (bag of 8)	XS-0038-7364-2	7000110616
VOL-PEC-R	Red port cap and label holder for RJ45 patch panel (bag of 8)	XS-0038-7369-1	7000110617
VOL-PEC-Y	Yellow port cap and label holder for RJ45 patch panel (bag of 8)	XS-0038-7370-9	7000110618
VOL-PEC-G	Green port cap and label holder for RJ45 patch panel (bag of 8)	XS-0038-7371-7	7000110619

3M™ Faceplates & Outlets

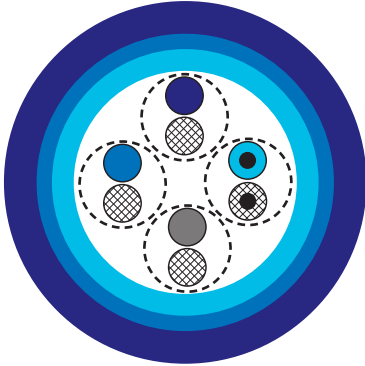
3M™ Faceplates are compatible with most electrical wall boxes and are available in 2-port and 4-port versions. These faceplates fit common European dimensions and are compatible with 3M™ RJ45 Modular Jacks. Port icons for port identification as well as label windows are included in some products.



3M™ Faceplates & Wall Outlets Ordering Information

Product Number	Description	3M ID	Order ID
VOLFPUK-1K	RJ45 Faceplate single gang UK, 1 port, White, 86 × 86 mm	XF-0038-4920-5	7000107398
VOLFPUK-2K	RJ45 Faceplate Single gang UK, 2 port, White, 86 × 86 mm	XF-0038-4921-3	7000107399
FP4MF1KND	Modular faceplate for 1 RJ45 connector, 45 × 45 mm, translucent	FQ-1000-7780-6	7000079176
FP4MF2KND	Modular faceplate for 2 RJ45 connectors, 45 × 45 mm, translucent	FQ-1000-7779-8	7000079175
FP4MF1KNDA	Modular faceplate for 1 RJ45 connector, 45 × 45 mm, aluminum	FQ-1000-7969-5	7000079250
FP4MF2KNDA	Modular faceplate for 2 RJ45 connectors, 45 × 45 mm, aluminum	FQ-1000-7970-3	7000079251
FP4MF1KW	Modular faceplate for 1 RJ45 connector, 45 × 45 mm, white	FQ-1000-8136-0	7000079331
FP4MF2KW	Modular faceplate for 2 RJ45 connectors, 45 × 45 mm, white	FQ-1000-8137-8	7000079332
60-516-10425	Modular faceplate for 1 RJ45 connector, 50 × 50 mm, white	DE-6200-4553-9	7000063454
60-516-10525	Modular faceplate for 2 RJ45 connectors, 50 × 50 mm, white	DE-6200-4554-7	7000063455
FP4MF1KI	Angled faceplate for 2 RJ45 connectors, 45 × 45 mm, white	FQ-1000-3100-1	7000078791
FP4MF2KI	Angled faceplate for 1 RJ45 connector, 45 × 45 mm, white	FQ-1000-3101-9	7000078792
FP4MF2K	Modular faceplate for 2 RJ45 connectors, 22.5 × 45 mm, white	FQ-1000-7977-8	7000033711
FP2MF1K	Modular faceplate for 1-click 2 RJ45 jack, 22.5 × 45 mm, white	FQ-1000-7864-8	7000033701
N/A	RJ45 ECO front faceplate 45 × 45 mm, 1 port	FQ-1000-8452-1	7100032937

3M™ Copper Cable



3M 4-pair Copper Cable is high performing, compliant with IEC 61156-5:2013 (ed. 2.1) and EN 50288-10-1: 2012. Category 6 UTP cable is made up of 4 pairs of color coded solid copper wires, surrounded by an outer fire retardant jacket. The cable meets industry standards for low voltage networks to transfer voice, data and video signals. Applications include IEEE 802.3 standards for 10 Mb to 1 Gb networks. It is also applicable to IEEE 802.3af POE and 802.3at POE+ and ATM LAN 1.2 Gb systems.

3M™ Copper Cable Specifications

3M™ Copper Cable Specifications	
Application	IEEE 802.3: 1000BASE-T; 100BASE-TX; 10BASE-T IEEE 802.3af – PoE; IEEE 802.3at - PoE+ ATM LAN 1.2 Gbit/s
Typical properties	
Conductor diameter Insulation diameter Separator Cable assemblies Sheath material Weight	AWG 24 Min: Pe 0.90 mm Non-metallic cross separator 1x4 pairs LSZH or PVC Max: 33 kg/km
Mechanical features	
Cable outer diameter	Max: 5.7 mm
Bending radius	
Dynamic (installation): Static (installed):	8x outer diameter 4x outer diameter
Temperature range:	
In service: Installation/transport/storage Max. pulling tension	-20°C to + 60°C 0°C to + 50°C 98N
Electrical features (@ 20°C ± 5°C)	
DC Resistance (max) Resistance Unbalance (max) Insulation Resistance (500 V) Mutual Capacitance (nominal) Test Voltage (DC, min) Capacitance Unbalance max (pair to ground) NVP (nominal) Coupling Attenuation @100MHz	9.5Ω / 100m @ 20°C 2% @ 20°C 5000 MΩ.km @ 20°C No requirement specified 1 kV / 1 min 160 pF/ 100m @ 1 kHz 66% ≥ 40 dB (TYPE 3)
Directive/Standard	
Cable Cabling system standard	IEC 61156-5 / EN 50288-5-1 ISO 11801 2. ed / EN 50173-1 / TIA 568-C.2
Directive ROHS LVD	2011/65/EU (RoHS2) LVD 2006/95/EC
PVC Fire Rating CPR Euroclass	IEC 60332-1 Class Eca
LSZH Smoke Gas / toxicity CPR Euroclass	EN / IEC 61034-2 IEC 60754-2 / IEC 60754-1 Class Cca

3M™ Copper Cable Ordering Information

Product Number	Description	Color	Length
VOL-6UP4-305	Cat. 6 Cable (1000 ohms U/UTP, PVC, 4 pairs, 24 AWG)	Green	305 m
VOL-6UL4-305	Cat. 6 Cable (1000 ohms U/UTP, LSZH, 4 pairs, 24 AWG)	Green	305 m

Additional lengths and colors of cable available upon request.

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