

TITAN accessories

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LAN UTP Cable

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CAT7 SFTP LAN CABLE**PRODUCTS DESCRIPTION****Application**

10GBASE-T Ethernet, 1000BASE-Tx Giga-bit Ethernet, 10BASE-T, 100BASE-T Fast Ethernet (IEEE 802.3), 100 VG-AnyLAN (IEEE802.12), 155/622 Mbps ATM, 550MHz Broadband Video, Voice, T1, ISDN

Standard Compliances:

All Proposed Category 7 requirements as per ANSI/TIA/EIA, ISO/IEC, and CENELEC EN Standards.

ANSI/TIA/EIA 568-B.2-10, draft

ISO/IEC 11801 CLASS F, 2nd Edition

CENELEC EN 50173-1

CENELEC EN 50288-4-1, 2nd Edition

CENELEC EN 50288-4-2

Flame Retardancy is verified according to IEC 60332-1-2.

ELECTRICAL PERFORMANCE

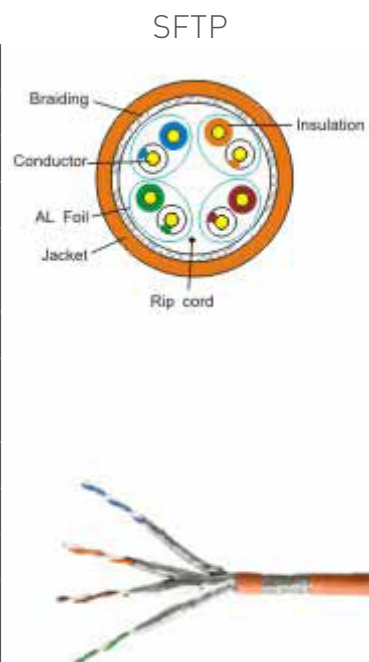
Spark Test	1050 V ac
Dielectric Strength	2500 V dc / 3 seconds
Insulation Resistance Test	Min. 150 MΩ/Km
Conductor Resistance	Max. 9.38 Ω/100m at 20°C
Resistance Unbalance	Max. 2%
Capacitance Unbalance	Max. 160 pF/100m
Mutual Capacitance	Max. 5600 pF/100m
Impedance	64kHz 125Ω ± 20% 1 ~250MHz 100Ω±15% 300-600MHZ 100Ω ± 25%

CAT7 SFTP LAN CABLE

CABLE DATA

Conductor	Solid bare copper
AWG	23
Conductor Diameter(mm)	0.583±0.02
Insulation	Foam-skin PE
Insulation average thick-ness	0.419mm (Min at any point:0.369mm)
Jacket	PVC/LSZH
Sheath average thickness	0.05mm (Min. at any point: 0.40mm)
Sheath diameter	7.4 ± 0.3 mm
Elongation	Min.100%
Tensile strength	Min. 1.407 Kg/mm2
Aging at 100°C for 168Hrs	Min.elongation retention:50% Min.tensile strength retention:75%
Rip cord	YES
Core color	Blue/White-Blue Orange/White-Orange Green/White-Green Brown/White-Brown

PRESENTATION



TYPICAL CABLE PERFORMANCE

Frequency (MHz)	Attenuation (dB/100 meters at 20°C), Max.	Next (dB), Min	Power Sum (dB), Min.
1	2.0*	80.0*	77.0*
4	3.7*	80.0*	77.0*
10	5.9*	80.0*	77.0*
16	7.4*	80.0*	77.0*
20	8.3*	80.0*	77.0*
31.25	10.4*	80.0*	77.0*
62.5	14.9*	75.5*	72.5*
100	19.0*	72.4*	69.4*
155	24.0*	69.5*	66.5*
200	27.5*	67.9*	64.9*
300	34.2*	65.2*	62.2*
600	50.10*	60.7*	57.7*

CAT6 SFTP LAN CABLE**PRODUCTS DESCRIPTION****Application**

Voice, T1, ISDN, 10BASE-T,
100BASE-T Fast Ethernet (IEEE 802.3),
100 VG - any LAN(IEEE802.12),
155/622 Mbps ATM,
550 MHz Broadband Video,
1000BASE-T Gigabit Ethernet

Standard Compliances:

All Proposed Category 6 requirements as per
ANSI/TIA/EIA, ISO/IEC, and CENELEC EN
Standards.

ANSI/TIA/EIA 568-B.2-1 CAT. 6

ISO/IEC 11801 CLASS E. 2nd Edition

IEC 61156-6

CENELEC EN 50173-1

CENELEC EN 50288-5-1

CENELEC EN 50288-5-2

Flame Retardancy is verified according to
IEC 60332-1-2.

ELECTRICAL PERFORMANCE

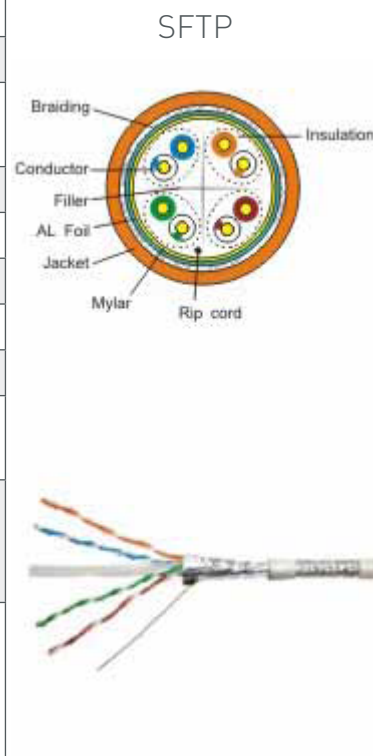
Spark Test	1050 V ac
Dielectric Strength	2500 V dc / 3 seconds
Insulation Resistance Test	Min. 150 MΩ/Km
Conductor Resistance	Max. 6.8 Ω/100m at 20°C
Resistance Unbalance	Max. 2%
Capacitance Unbalance	Max. 330 pF/100m
Mutual Capacitance	Max. 5600 pF/100m
Impedance	64kHz 125Ω ±20% 1 ~250MHz 100Ω ±15%

CAT6 SFTP LAN CABLE

CABLE DATA

Conductor	bare copper
AWG	23
Conductor Diameter(mm)	0.56±0.02
Insulation	Foam-skin PE
Insulation average thickness	0.414 mm Min at any point: 0.364
Jacket	PVC/LSZH
Average thickness	0.54mm
Min point thickness	0.4mm
Outer Dia	7.2 ±0.3mm
Elongation	Min. 100% / min. 125%
Tensile strength	Min. 1.407 kg/mm ² / Min. 0.917 Kg/mm ²
Aging at 100°C for 168Hrs	Min. elongation retention: 50% Min. tensile strength retention: 75%
Core color	Blue/White-Blue Orange/White-Orange Green/White-Green Brown/White-Brown

PRESENTATION



TYPICAL CABLE PERFORMANCE

Frequency (MHz)	Attenuation (dB/100 meters at 20°C), Max.	Next (dB), Min	Power Sum (dB), Min.
0.772	--	67*	64*
1.0	--	65*	62*
4.0	6.4*	56*	53*
8.0	8.9*	51*	48*
10.0	9.9*	50*	47*
16.0	12.3*	47*	44*
20.0	13.8*	45*	42*
25.0	16.0*	44*	41*
31.25	17.1*	42*	39*
62.5	25.6*	38*	35*
100.0	100MHz	33.0*	32*
125.0	37.4*	34*	31*

CAT6 FTP LAN CABLE



PRODUCTS DESCRIPTION

Application

POTS. T1&T1 fractional ISDN basic&primary Rate. 4/16 Mbps Token Ring(IEEE802.5). 10BAST-T (IEEE 802.3), 100Mbps TP-PMD. 52/155Mbps ATM (ATM Forum). 100BAST-T4 (Ethernet), 100 VG-AnyLAN (IEEE802.12), 100 BAST-T(Fast Ethernet), 1 Gbps Ethernet(IEEE 802.3)

ELECTRICAL PERFORMANCE

1.0-100.0 MHz Impedance(ohms) 100 ± 15
 100.0-250.0 MHz Impedance(ohms) 100 ± 22
 Impedance Delay screw(ns/100m) <45
 Pair to Ground Capacitance Unbalance (PF/100m) 330Max
 conductor DC resistance 20%(ohms/km) <73.2

Resistance Unbalance(%)	5
Test object	jacket
Test material	PVC
Before Tensile strength(Mpa)	≥ 13.8
Aging Elongation ([%)	≥ 100
Aging condition (C xhrs)	100x240
After Tensile strength(Mpa)	$\geq 85\%$ of unaged
Aging Elongation(%)	$\geq 50\%$ of unaged
Cold bend(-20 \pm 2 C *4 hrs)	No crock

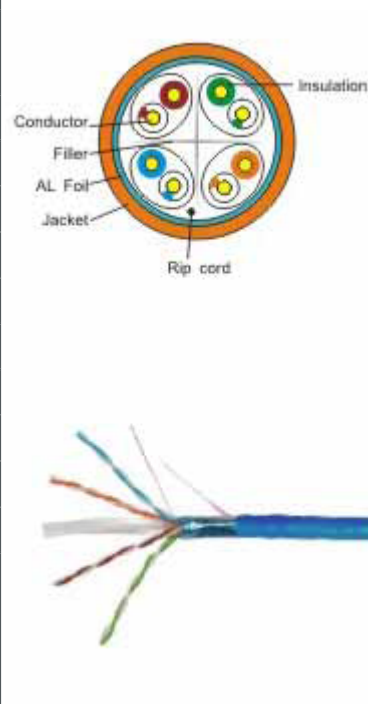
CAT6 FTP LAN CABLE

CABLE DATA

Conductor	Solid bare copper
AWG	23
Conductor Dia(mm)	0.57
Insulation	PE
Average thickness(j0.03mm)	0.24
Min point thickness:	0.24
Insulation Dia(j0.03mm)	1.00
Twisting lay length(mm)	30 underneath
Cabling lay length(mm)	200 underneath
Jacket	PVC
Average thickness	0.5
Min point thickness	0.4
Outer Dia(jl.0mm)	6.6
Rip cord	YES
Weight Nom(kg/km)	60
Core color:	Blue-white/blue Orange-white/orange Green-white/orange Brown-white/brown

PRESENTATION

SFTP



TYPICAL CABLE PERFORMANCE

Frequency (MHz)	Return loss (dB)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB)	PSNEXT (dB)	ELEFXT (dB/100m)	PSELEXT (dB/100m)	Delay (ns/100m)
0.772	19.4	1.8	76.0	74.0	74.0	70.0	67.0	575.0
1.0	20.0	2.0	74.3	72.0	72.3	67.8	64.8	570.0
4.0	23.0	3.8	65.5	61.0	63.3	55.8	52.8	552.0
8.0	24.5	5.3	60.8	55.0	58.8	49.7	46.7	546.7
10.0	25.0	6.0	59.3	53.0	57.3	47.8	44.8	545.4
16.0	25.0	7.6	56.2	49.0	54.2	43.7	40.7	543.0
20.0	25.0	8.5	54.8	46.0	52.8	41.8	38.8	542.0
25.0	24.3	9.5	53.3	44.0	51.3	39.8	36.8	541.2
31.25	23.6	10.7	51.9	41.0	49.9	37.9	34.9	540.4
62.5	21.5	15.4	47.4	32.0	45.4	31.9	28.9	538.6
100.0	20.1	19.8	44.3	24.5	42.3	27.8	24.8	537.6
200.0	18.0	29.0	39.8	10.8	37.8	21.8	18.8	536.5
250.0	17.3	32.8	38.3	5.5	36.3	19.8	16.8	536.3

CAT6 UTP LAN CABLE



PRODUCTS DESCRIPTION

Application

PPOTS.T1&T1 fractional, ISDN basic&primary Rate. 4/16 Mbps Token Ring (IEEE802.5).10BAST-T (IEEE 802.3), 100Mbpa TP-PMD.52/155Mbps ATM (ATM Forum). 100BAST-T4 (fast Ethernet), 100 VG-AnyLAN (IEEE802.12), 100 BAST-T(Fast Ethernet), 1 Gbps Ethemet (IEEE 802.3)

ELECTRICAL PERFORMANCE

1.0-100.0 MHz Impedance(ohms)100±15
 100.0-250.0 MHz Impedance(ohms)100±22
 Impedance Delay screw(ns/100m)<45
 Pair to Ground Capacitance Unbalance (PF/100m)330Max
 conductor DC resistance 20%(ohms/km)<73.2

Resistance Unbalance(%)	5
Test object	jacket
Test material	PVC
Before Tensile strength(Mpa)	≥13.8
Aging Elongation [(%)	≥100
Aging condition (C xhrs)	100x240
After Tensile strength(Mpa)	≥85% of unaged
Aging Elongation(%)	≥50% of unaged
Cold bend(-20±2 C *4 hrs)	No crotch

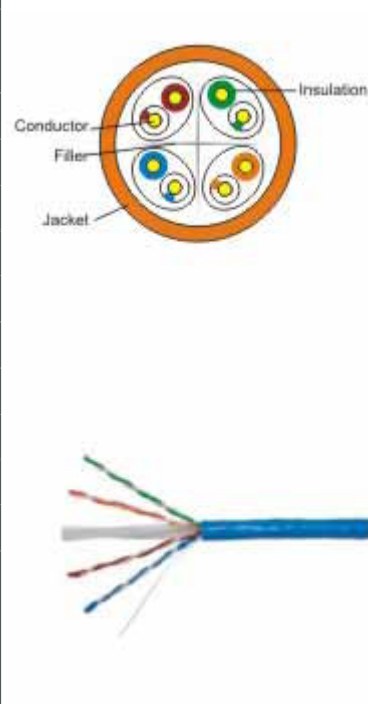
CAT6 UTP LAN CABLE

CABLE DATA

Conductor	Solid bare copper
AWG	23
Conductor Dia(mm)	0.57
Insulation	PE
Average thickness(± 0.03 mm)	0.22
Min point thickness:	0.18
Insulation Dia(± 0.03 mm)	1.02
Twisting lay length(mm)	30 underneath
Cabling lay length(mm)	200 underneath
Jacket	PVC
Average thickness	0.5
Min point thickness	0.43
Outer Dia(± 1.0 mm)	6.0
Rip cord	YES
Weight Nom(kg/km)	42
Core color:	Blue-white/blue Orange-white/orange Green- white/orange Brown-white/brown

PRESENTATION

SFTP



TYPICAL CABLE PERFORMANCE

Frequency (MHz)	Return loss(dB)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB)	PSNEXT (dB)	ELEFXT (dB/100m)	PSELEXT (dB/100m)	Delay (ns/100m)
0.772	9.4	108	76.0	74.0	74.0	70	67	575.0
1.0	20.30	2.0	74.3	72.0	72.3	67.8	64.8	570.0
4.0	23.0	3.8	65.5	61.0	63.3	55.8	52.8	552.0
8.0	24.05	5.3	60.8	55.0	58.8	49.7	46.7	546.0
10.0	25.0	6.0	59.3	53.0	57.3	47.8	44.8	545.4
16.0	25.0	7.6	56.2	49.0	54.2	43.7	40.7	543.0
20.0	25.0	8.5	54.8	46.0	52.8	41.8	38.8	542.0
25.0	24.3	9.5	53.3	44.0	51.3	39.8	36.8	541.0
31.25	23.6	10.7	51.9	41.0	49.9	37.9	34.9	540.0
62.5	21.5	15.4	47.4	32.0	45.4	31.9	28.9	538.6
100.0	20.1	19.8	44.3	24.5	42.3	27.8	24.8	537.6
200.0	18.0	29.0	39.8	10.8	37.8	21.8	18.8	536.5
250.0	17.3	32.8	38.3	5.5	36.3	19.8	16.8	536.3

CAT5E SFTP LAN CABLE



PRODUCTS DESCRIPTION

Application

1000BASE-T Gigabit Ethernet 10BASE-T,
 100BASE-T Fast Ethernet (IEEE 802.3)
 100 VG - AnyLAN(IEEE802.12),
 155/622 Mbps ATM 550MHz
 Broadband Video
 Voice, T1, ISDN

Standard Compliances:

All Category 5e Requirements as Per
 ANSI/TIA/EIA, ISO/IEC, and
 CENELEC EN Standards:
 ANSI/TIA/EIA 568-B.2 CAT.5e
 2nd Edition ISO/IEC 11801 Class D
 CENELEC EN 50173-1 IEC 61156-5,
 CENELEC EN 50288-2-1 Horizontal Cable
 Flame Retardancy is Verified According to
 IEC 60332-1

ELECTRICAL PERFORMANCE

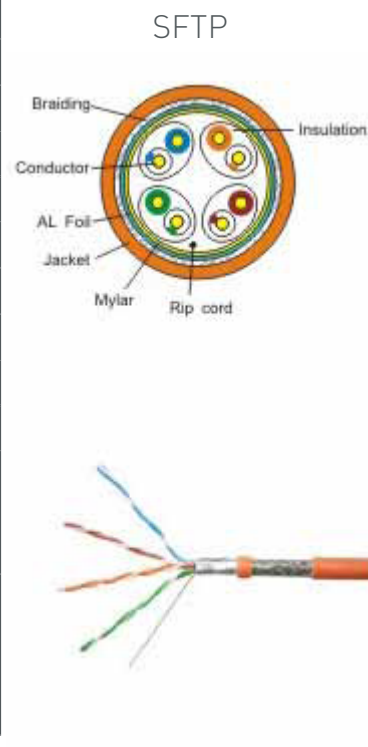
Spark Test	850 V ac
Dielectric Strength	2500 V dc / 3 seconds
Insulation Resistance Test	Min. 150MΩ/Km
Conductor Resistance	Max. 9.38Ω/100m at20°C
Resistance Unbalance	Max. 5%
Capacitance Unbalance	Max. 330 pF/100m
Mutual Capacitance	Max. 5600 pF/100m
Impedance	722kHz 102Ω ±15% 1~125MHz 100Ω ±15%

CAT5E SFTP LAN CABLE

CABLE DATA

Conductor	bare copper
AWG	24
Conductor Dia(mm)	0.517±0.02
Insulation	Foam-skin PE
Average thickness	0.269 mm
Min at any point:	0.219mm
Jacket	PVC
Average thickness	0.5mm
Min point thickness	0.4mm
Outer Dia	6.0±0.3mm
Elongation	min. 100%
Tensile strength	min. 1.407 kg/ mm ²
Aging at 100°C for 168Hrs	Min. elongation retention:50% Min. tensile strength retention:75%
Colors	Blue-white/blue Orange-white/orange Green- white/orange Brown-white/brown

PRESENTATION



TYPICAL CABLE PERFORMANCE

Frequency (MHz)	Attenuation (dB/100 meters at 20°C), Max.	Next (dB), Min	Power Sum (dB), Min.
1MHz	—	65*	62
4	4.1'	56*	[53
8	5.8*	51*	48
10	6.5*	50*	47
16	8.2*	47*	44
20	9.3*	45*	42
25	10.4*	44*	41
31.25	11.7*	42*	39
62.5	17.0*	38*	35
100	22.0*	35*	32
125.0	25.0*	34*	31*

CAT5E FTP LAN CABLE



PRODUCTS DESCRIPTION

Application

This 4-pair Category 5e cable is tested for power Sum NEXT, ELFEXT, Delay Skew. Propagation Delay and any other criteria as specified in the emerging standard. Applications can include Voice, ISDN, ATM155 and 622Mbps, 100Mbps TPDDI, Fast and Gigabit Ethernet, Shielding protects against EMI/RFI interference

ELECTRICAL PERFORMANCE (AT 100MHZ)

1.0-100.0MHz Impedance(ohms) 100 ± 15
 1.0-100.0MHz Impedance delay screw(ns/100m) <45
 Pair to Ground Capacitance Unbalance (PF/100m)330Max
 Conductor DC resistance 20%(ohms/km) <93.8

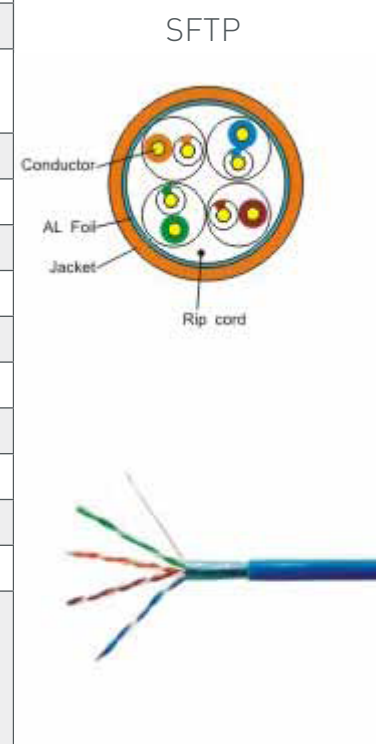
Resistance Unbalance(%)	5
Test object	jacket
Test Material	PVC
Before Tensile strength(Mpa)	≥ 13.8
Aging Elongation [(%)	≥ 100
Aging condition(C xhrs)	100X240
After Tensile strength(Mpa)	$\geq 85\%$ of unaged
Aging Elongation(%)	$\geq 50\%$ of naged
Cold bend(-20 ± 2 C*4 hrs)	No crock

CAT5E FTP LAN CABLE

CABLE DATA

Conductor	Solid bare copper
AWG	24
Conductor Dia(mm)	0.51
Insulation	PE
Average thickness(± 0.03 mm)	0.25
Min point thickness:	0.22
Insulation Dia (± 0.03 mm)	1.00
Twisting lay length (mm)	30 underneath
Cabling lay length (mm)	200 underneath
Jacket	PVC
Average thickness	0.5
Min point thickness	0.46
Outer Dia(± 1.0 mm)	5.1
Rip cord	YES
Weight Nom(kg/km)	43
Core color:	Blue-white/blue Orange-white/orange Green-white/orange Brown-white/brown

PRESENTATION



TYPICAL CABLE PERFORMANCE

Frequency (MHz)	Return loss (dB)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB)	PSNEXT (dB)	ELEFXT (dB/100m)	PSELEXT (dB/100m)	Delay (ns/100m)
0.772	19.4	1.8	67	65	64	66	63	575
1.0	20.0	2.0	65.3	63.0	62.3	63.8	60.8	570
4.0	21.0	4.1	56.3	52.0	53.3	51.7	48.7	562
6.0	24.5	5.8	51.8	46.0	48.8	45.7	42.7	546.7
10.0	25.0	6.5	50.3	44.0	47.3	43.8	40.8	546.4
16.0	25.0	8.2	47.3	39.0	44.3	39.7	36.7	543
20.0	25.0	9.3	45.8	37.0	42.8	37.7	34.7	542
25.0	24.3	10.4	44.3	34.0	41.3	35.8	32.8	541.2
31.25	23.6	11.7	42.9	31.0	39.9	33.9	30.9	540.4
62.5	21.5	17	38.4	21.0	35.4	27.8	24.8	438.6
100.0	20.1	22	36.3	13.0	32.3	23.8	20.8	537.6

CAT5E UTP LAN CABLE



PRODUCTS DESCRIPTION

Application

This 4-pair Category 5e cable is tested for power Sum NEXT, ELFEXT, Delay Skew. Propagation Delay and any other criteria as specified in the emerging standard. Applications can include Voice, ISDN, ATM155 and 622Mbps, 100Mbps TPDDI, Fast and Gigabit Ethernet, Shielding protects against EMI/RFI interference.

ELECTRICAL PERFORMANCE (AT 100MHZ)

1.0-100.0MHz Impedance(ohms) 100 ± 15
 1.0-100.0MHz Impedance delay screw(ns/100m) < 45
 Pair to Ground Capacitance Unbalance (PF/100m) 330Max
 Conductor DC resistance 20%(ohms/km) < 93.8

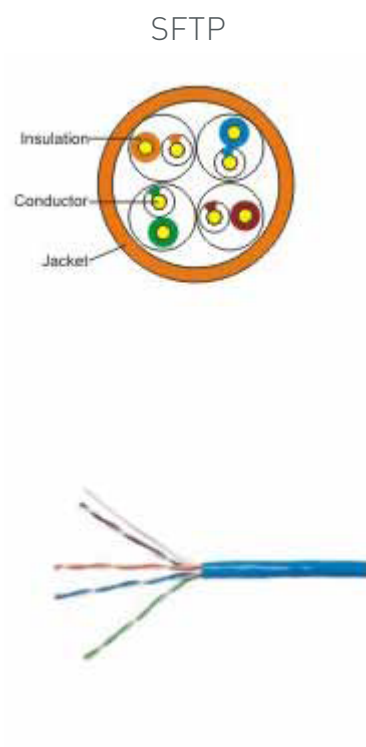
Resistance Unbalance(%)	5
Test object	jacket
Test Material	PVC
Before Tensile strength(Mpa)	≥ 13.8
Aging Elongation [(%)	≥ 100
Aging condition(C xhrs)	100X240
After Tensile strength(Mpa)	$\geq 85\%$ of unaged
Aging Elongation(%)	$\geq 50\%$ of naged
Cold bend(-20 ± 2 C*4 hrs)	No crock

CAT5E UTP LAN CABLE

CABLE DATA

Conductor	Solid bare copper
AWG	24
Conductor Dia(mm)	0.51
Insulation	PE
Average thickness(± 0.03 mm)	0.20
Min point thickness:	0.17
Insulation Dia (± 0.03 mm)	0.91
Twisting lay length (mm)	30 underneath
Cabling lay length (mm)	200 underneath
Jacket	PVC
Average thickness	0.5
Min point thickness	0.43
Outer Dia(± 1.0 mm)	5.1
Rip cord	YES
Weight Nom(kg/km)	32
Core color:	Blue-white/blue Orange-white/orange Green- white/orange Brown- white/brown

PRESENTATION



TYPICAL CABLE PERFORMANCE

Frequency (MHz)	Return loss (dB)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB)	PSNEXT (dB)	ELEFXT (dB/100m)	PSELEXT (dB/100m)	Delay (ns/100m)
0.772	19.4	1.8	67	65	64	66	63	575
1.0	20.0	2.0	65.3	63.0	62.3	63.8	60.8	570
4.0	21.0	4.1	56.3	52.0	53.3	51.7	48.7	562
6.0	24.5	5.8	51.8	46.0	48.8	45.7	42.7	546.7
10.0	25.0	6.5	50.3	44.0	47.3	43.8	40.8	546.4
16.0	25.0	8.2	47.3	39.0	44.3	39.7	36.7	543
20.0	25.0	9.3	45.8	37.0	42.8	37.7	34.7	542
25.0	24.3	10.4	44.3	34.0	41.3	35.8	32.8	541.2
31.25	23.6	11.7	42.9	31.0	39.9	33.9	30.9	540.4
62.5	21.5	17	38.4	21.0	35.4	27.8	24.8	438.6
100.0	20.1	22	36.3	13.0	32.3	23.8	20.8	537.6

CAT5E UTP WATER-PROOF LAN CABLE**PRODUCTS DESCRIPTION****Application**

ISDN, 10BASE-T (IEEE802.3),
100BASE-T (IEEE802.3), 155 Mbps
ATM, 100Vg-AnyLAN (IEEE802.12),
TP-PMD (ANSI X3T9.5), 16Mbps
Token Ring (IEEE802.5)

Industry Standards:

ANSI/TIA/EIA 568-B.2, EN50173,
EN50288-3-1, ISO/IEC 11801

ELECTRICAL PERFORMANCE (AT 100MHZ)

Low Frequency

Dielectric Strengths: 5kVdc-2 second

DC Loop Resistance: Max 19ohm/100m

Resistance Unbalance: Max 2%

Insulation Resistance: Min 500 Mohm-km@100-500Vt

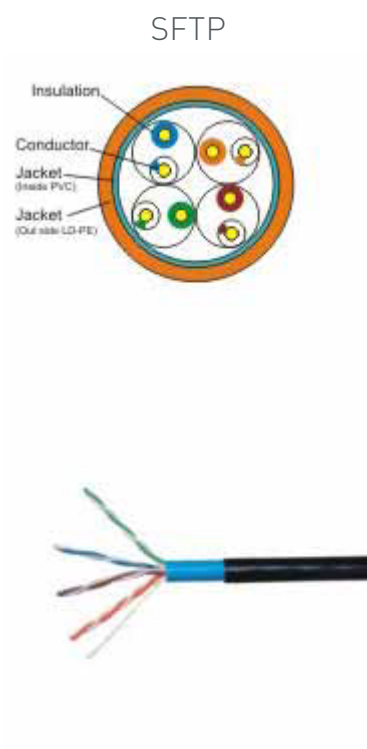
Capacitance Unbalance(pair to ground): Max 1600pF/100m

CAT5E UTP WATER-PROOF LAN CABLE

CABLE DATA

Conductor	Solid bare copper
AWG	24
Conductor Dia(mm)	0.51
Insulation	PE
Average thickness(± 0.03 mm)	0.20
Min point thickness:	0.17
Insulation Dia (± 0.03 mm)	0.91
Twisting lay length (mm)	30 underneath
Cabling lay length (mm)	200 underneath
Jacket	PVC(inside)+LD-PE(outside)
Average thickness	0.5
Min point thickness	0.43
Outer Dia(± 1.0 mm)	5.1
Rip cord	YES
Weight Nom(kg/km)	32
Core color:	Blue-white/blue Orange-white/orange Green-white/orange Brown-white/brown

PRESENTATION



TYPICAL CABLE PERFORMANCE

Frequency (MHz)	Return loss (dB)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB)
0.722	20.0	1.8	67.0	64.0
1.0	20.0	2.0	65.3	62.3
4.0	23.0	4.1	56.3	53.3
8.0	24.5	5.8	51.8	48.8
1.0	25.0	6.5	50.3	47.3
16.0	25.0	8.2	47.3	44.3
20.0	25.0	9.3	45.8	42.8
25.0	24.3	10.4	44.3	41.3
31.25	23.3	11.7	42.9	39.9
62.5	20.7	17.0	38.4	35.4
100.0	19.0	22.0	35.3	32.3

TELECOMMUNICATION CABLE



PRODUCTS DESCRIPTION

Standard Length: 305m per Box

Application:

this 2-pair Category 3 cable.

Application can include: POST.T1 and T1 Fractional ISDN basic Rate/
4/16 Mbps Token ring.10Base-t(IEE 802.3).100Base-T4(fast Ethernet)

ELECTRICAL PERFORMANCE(AT 10MHZ)

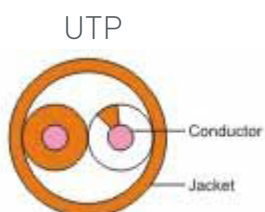
1.0-16.0MHz Impedance(ohms) 16 ± 15

Pair to Ground Capacitance Unbalance(PF/100m)330Max

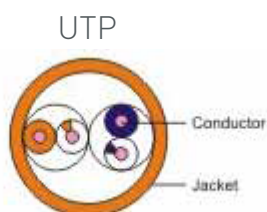
Conductor DC resistance20%(ohms/km) ≤ 9.38

Resistance Unbalance(%)	5
Test object	jacket
Test Material	PVC
Before Tensile strength(Mpa)	≥ 13.8
Aging Elongation(%)	≥ 100
Aging condition(Cxhrs)	100x240
After Tensile strength(Mpa)	$\geq 85\%$ of unaged
Aging Elongation(%)	$\geq 50\%$ of naged
Cold bend($-20 \pm 2C^*4$ hrs)	No crock

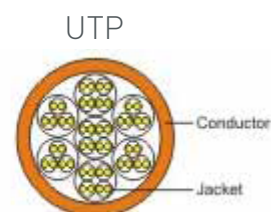
PRESENTATION



1-pair Cat3 Cross section



2-pair Cat3 Cross section



Multi pairs Cross section

TELECOMMUNICATION CABLE

CABLE DATA

Conductor	Solid bare copper
AW G	24
Conductor Dia(mm)	0.51
Insulation	PE
Average thickness(± 0.03 mm)	0.18
Min point thickness:	0.15
Insulation Dia (± 0.03 mm)	0.91
Twisting lay length(mm)	80 underneath
Cabling lay length(mm)	500 underneath
Jacket	PVC
Average thickness	0.8
Min point thickness	0.70
Outer Dia(± 1.0 mm)	12.5
Rip cord	YES
Core color:	Pair 1: Blue-white/blue Pair 2: Orange-white/orange Pair 3: Green-white/green Pair 4: Brown-white/brown

TYPICAL CABLE PERFORMANCE

Frequency (MHz)	SRL (dB)	Attenuation (dB/100m)	NEXT (dB)
0.772	12.0	2.2	43.0
1.0	12.0	2.6	41.0
4.0	12.0	5.6	32.0
8.0	12.0	8.5	28.0
10.0	12.0	9.7	26.0
16.0	10.0	13.1	23.0



Packaging of Products



UTP 1-pair solid cable



Cat3 UTP 2-pair solid cable



Cat3 UTP 25-pair solid cable



Cat3 UTP 50-pair solid cable

PATCH CABLE

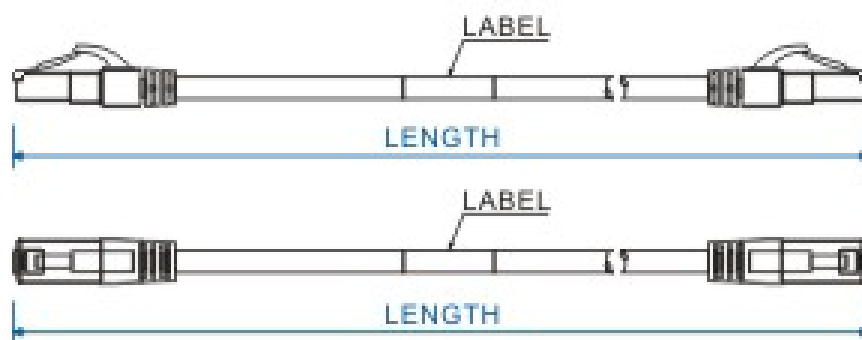


PRODUCTS DESCRIPTION

- The cable connects all the hardware destinations on a Local Area Network.
- With snagless molded strain relief, this cable's RJ45 tap is protected from being damaged during installation.
- 7 copper wires 0.20 mm (0.008"), 24 AWG
- It features 50 micron gold plated RJ45 (male-to-male) connectors which ensure clear transmission.
- Features: Gold plated connectors
- Compliance Standards: EIA/TIA-568B Category 5e
- Connector(s): 1 x RJ-45 - male
- Connector(s) (Other Side): 1 x RJ-45 - male
- Jacket: Polyvinylchloride(PVC). Polyethylene (PE) or Low Smoke Zero Halogen(LSZH)
- CE.RoHS compliant
- Length: 1m;1.5m/2m/3m/5m (3FT/5FT/7FT/9FT/15FT)
- RANDOM Colors Available: Gray. Black. Green. Blue. Red. Yellow. Orange. White. Purple. Pink



PRESENTATION



PATCH CABLE

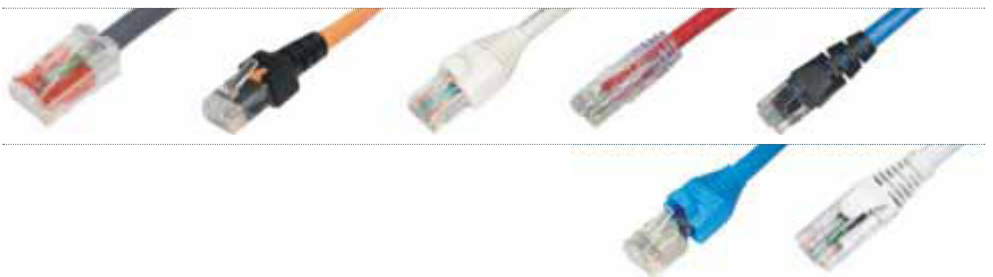
CAT7 FTP PATCH CABLE



CAT6 FTP PATCH CABLE



CAT6 UTP PATCH CABLE



CAT5E FTP PATCH CABLE



CAT5E UTP PATCH CABLE



MODULAR PLUGS

PRODUCTS DESCRIPTION

We offer modular plugs in standard configuration terminate modular cords for patching or work area application, modular plugs can be terminated to the exact cable length in order to maintain a neater, more organized installment, the plugs terminate twist pair cable with 22-26 AWG solid all plugs contacts have 50 micron inch of good plating over nickel.



Features and benefits

- Clear color.
- Meet or exceed the requirement in the Cat 5E T568 A and T568 B (Telecommunication requirement)
- Contacts are nickel plated, phosphor bronze with 6 to 50u" gold plate
- Meets EIA/TIA 568 Cat5e(Cat3) specification
- Contact blade: phosphor bronze
- Exclusive stagger conductors guide design reduces near end cross talk

Straight Pin for Stranded Wire



Three Prongs Pin for Solid Wire



MODULAR PLUG ACCESSORIES



MODULAR PLUGS

CAT5E UTP MODULAR PLUGS



CAT6 FTP MODULAR PLUGS



CAT6 UTP MODULAR PLUGS



CAT3 UTP PATCH CABLE



110 STYLE PATCH CABLE

PRODUCTS DESCRIPTION

The patch plugs are tested and verified to meet and exceed the connecting hard performance requirement. They are used in a cross connect field to provide modularity and quick termination to connecting blocks or as an interconnection method.

Features and benefits

- Meet or exceed attenuations and Category 5E specification for patch cables
- Provide a system solution for patching to the connecting block
- It has a sturdy reinforced design to hold up under punch down termination
- It is economical style for easy handling
- Available in 1, 2 and 4 pairs



PRODUCT DESCRIPTION



The patch plugs are tested and verified to meet and exceed the connecting hard performance requirement. They are used in a cross connect field to provide modularity and quick termination to connecting blocks or as an interconnection method.

Features and benefits

- Provide a system solution for patching to the connection block
- It has a sturdy, reinforced design to hold up under punch down termination
- It is economical style for easy handling • Available in 1, 2 and 4 pairs

PLUG BOOT



CAT6A KEYSTONE JACK



PRODUCTS DESCRIPTION

TEDE 10G Augmented Category 6 UTP keystone jack delivers excellent headroom beyond 500MHz. They exceed the TIA/EIA Cat 6A Specification to support 10GBASE-T standards. Patented PCB circuits unique contact alignment does the main work in suppressing the internal magnetic coupling between pairs. Press-fit technology is applied for full-line production to prevent the potential risk of RoHS compliance. No solder, no lead. Compact figure allows to work with TEDE 10G. TEDE

10G Cat.6A keystone jack leads you to the gateway that expedites 10G over copper solution!

The jacks feature easy Install *110* Terminations . for easy, trouble free installations, and keystone mounting. These jacks have been extensively tested in the laboratory, and in the field. The jacks feature easy Install "110" Terminations . for easy, trouble free installations, and keystone mounting. These jacks have been extensively tested in the laboratory, and in the field.

Advantages

- 10Gb/s performance, meeting or exceeding all performance requirements of the pending Category 6A (augmented category 6) standard, including alien crosstalk.
- Hardware Certified of complying with TIA/EIA-568B.22-1 Cat 6 A by UP and 3rd Party
- Complies with EU-RoHS
- Meets FCC subpart 68 requirements Jack with a minimum 50 microinch gold plating over nickel
- Easily Portable
- Insertion life - 750 cycles minimum UL listed
- Enhanced PC designed technology provides reliable performance

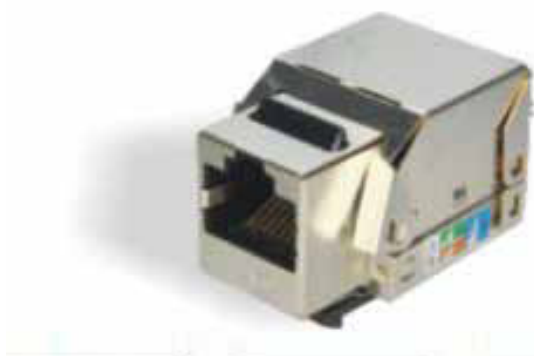
CAT6 FTP KEYSTONE JACK

PRODUCTS DESCRIPTION

A shielded version is available to maximum protection from EMI/RFI interference by utilizing fully shielded jacks and connecting hardware, you can reduce the effect of interference on the network data transmissions. The compact size provides high-density connectivity in the work area and telecommunications room.

Features and benefits

- Available in Cat6.T568A'B wiring scheme.meet or exceed TIA/EIA Cat6 requirements
- Shielding protects against EMI/RFI interference
- Housing: high temperature thermoplastic
- Compact jack design.8 positions and 8 conductors
- Contact: phosphor bronze.phosphor bronze with 6 to 50μ" gold plate
- Accept 22-26 AWG solid with a insulation diameter of 0.4-0.6mm
- Easy to be terminated.extremely low attenuation loss and high return loss
- High reliability and superior performance
- Available in different colors



CAT6 FTP KEYSTONE JACK

PRODUCTS DESCRIPTION

The new style jack provides Category 6 system performance and user-friendly installation features. A shielded is available to maximum protection from EMVRFI interference, the compact size provides highdensity connectivity in the work area and telecommunications room

Features and benefits

- Available in Cat 6. T568A,'B wiring meet or exceed TIA'tIA Cat 6 requirements.
- Shielding protects against EMti'RFI interference
- Housing high temperature thermoplastic
- Compact jack design. 8 positions and 8 conductors
- Contact: phosphor bronze, phosphor bronze with 6 to 50μ' gold plate
- Accept 22-26 AWG solid with a insulation diameter of 0.4-0.6mm
- Easy to be terminated, low attenuation loss and high return loss
- High reliability and superaor performance
- Available in different colors



ORDER STYLE



CAT6 UTP KEYSTONE JACK



PRODUCTS DESCRIPTION

This series keystone jacks work together with high speed cables, cords and panels to provide performance beyond proposed Category 6 standards. A new feature of this series jack is a universal colored wiring label that eliminates the need for separate codes for T568A, B wiring scheme.

PRESENTATION



Features and benefits

- Available in Cat6, T568A/B wiring, meet or exceed TIA/EIA Cat6 requirements
- Housing: high temperature thermoplastic
- Compact jack design, 8 positions and 8 conductors
- Contact: phosphor bronze, phosphor bronze with 6 to 50µ gold plate
- Accept 22-26 AWG solid with an insulation diameter of 0.4-0.6mm
- Easy to be terminated, low attenuation loss and high return loss
- High reliability and superior performance

CAT6 THROUGH COUPLER KEYSTONE JACK



CAT5E UTP KEYSTONE JACK



PRODUCTS DESCRIPTION

This is a toolless style jack, meaning that a 110 punch down tool is not required to connect the wires. This feature ensures a reliable termination the very fast time. It features dual color-coded wiring labels with both 568 A and 568 B wiring pattern. A rear termination field for easy termination of a jack while installed in a wall plate, surface mount boxes, and blank patch panels for a wide variety of Applications.

Features and benefits

- Available in Cat5e, T568A and T568B wiring, meeting every cabling requirements
- Housing: high temperature thermoplastic
- Compact jack design, 8 positions and 8 conductors
- Contact: phosphor bronze, phosphor bronze with 6 to 50 µm gold plate
- Accept 22-26 AWG solid with a insulation diameter of 0.4-0.6mm
- Easy to be installed low attenuation loss and high return loss
- High reliability and superior performance
- Available in different colors

CAT6 & CAT5E OTHER STYLE

CAT6 OTHER STYLE



CAT5E OTHER STYLE



TELECOMMUNICATION KEYSTONE JACK

TELECOMMUNICATION KEYSTONE JACK



TELECOMMUNICATION KEYSTONE JACK



BLANK PATCH PANEL



DESCRIPTION

The ultimate flexibility of our system is due to use of Cat6 & Cat5e Patch Panels. these panels use the same modules identical to outlet to the closet end of the cable. This eliminates wiring errors and provides better usability of materials with the ease of installation. Our patch panels allows re-arrangement of the modules in the patch panel without disconnecting and re-terminating the cables

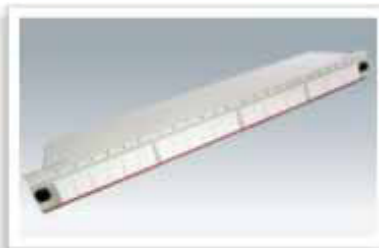
CHARACTERISTICS

- Usable bandwidth of up to 300MHz guarantees extra overhead beyond Category B standard
- Unmatched transmission performance supporting data rates of up to 4.8Gbps; providing the honest bit rate for UTP cabling in the industry
- Modules holes are truly backward compatible with CAT5e Module/Jack to protect cabling investment
- Easy to read 568A/B color scheme prevents installation errors

- Panels are available in 24-port configuration for optimization of rack installation
- Robust and installer-friendly design to reduce installation and operating costs
- Powder paint finish
- Compatible with standard 19 in. equipment racks, cabinets or wall mount brackets
- Integrated rear cable management bar to accommodate any installation need
- Velcro ties included to facilitate proper and secured installation of high performance CAT6 cables
- Large front labeling space facilitating custom port identification
- Enclosure type: Modular
- Number of Ports: 24

APPLICATIONS

- Horizontal distribution or equipment terminations in Telecommunications Rooms OR Interconnections terminations is consolidation points



CAT6 PATCH PANEL

24-PORT PATCH PANEL



PRODUCTS DESCRIPTION

The patch panel is a 19 inch rack mountable RJ45 jack panels . Each panel has cutouts that accept virtually all snap-in jacks .the kits includes the new icon labels with plastic holders that you mount on the front of the panels for easy port identification Blank anodized panels can be mounted directly to an EIA standard 19 inch relay back or cabinets

Features and benefits

- Design to mount to any standard 19" rack or cabinet
- 24-port Cat 6 shielded Patch panel
- Space saving nigh density 1U
- Black electrostatic Powder-Coated Steel: phosphor bronze with tin plating over nickel. Meet or exceed the requirement of ANSI.TIAI'EIA 568B.2 .
- Use keystone >acks and keywtone inserts to config-ure your panel to accommodate a variety of schemes .
- Sturdy Aluminum Plate around RJ 45 Jacks
- Phosphor bronze with 6-50 micro inches gold plated
- Available with T568AiT5688 wiring pattern and meeting the requirement of Cat 5E standard
- Color Coded TIA'EIA 56-BAi international | and S68B|AT&T standard)
- Wiring for easy installation
- Metal sheet Corrosion resistant steel
- Plastic: fire self -extinguish high impact plastic

CAT 6 UTP 24-PORT PATCH PANEL

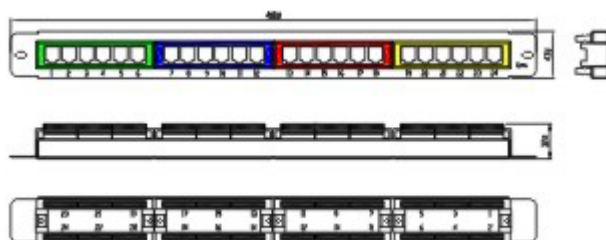


PRODUCTS DESCRIPTION

The patch panel is a 19 inch rack mountable RJ45 jack panels . Each panel has cutouts that accept virtually all snap-in jacks, the kits includes the new icon labels with plastic holders that you mount on the front of the panel for easy port identification . Blank anodized panels can be mounted directly for easy port identification . Blank anodized panels can be mounted direct-ly to an EIA standard 19 inch relay back or cabinets

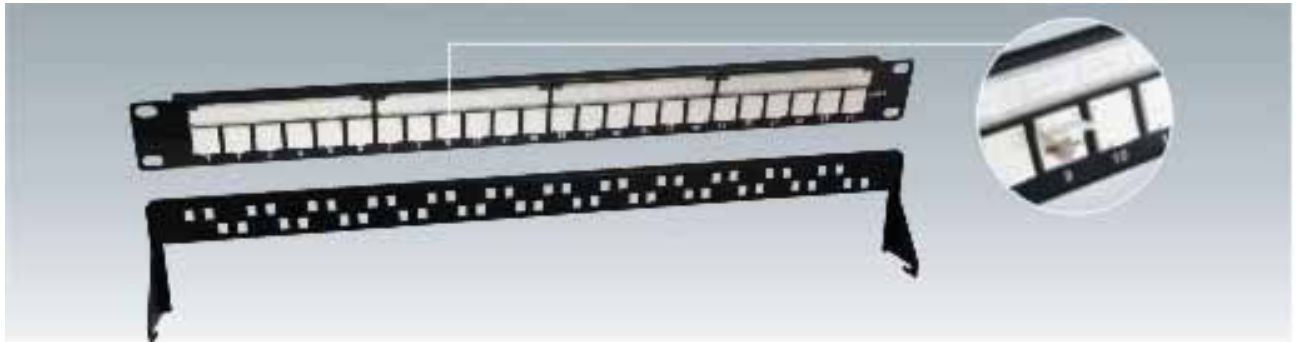
Features and benefits

- Design to mount to any standard 19" rack or cabinet
- 24-port Cat 6 Patch panel
- Space saving .high-density 1U
- Black electrostatic Powder-Coated Steel: phosphor bronze with tin plating over nickel. Meet or exceed the requirement of ANSI/TIA/EIA 568B.2.
- Use keystone jacks and keystone inserts to config-ure your panel to accommodate a variety of schemes.
- Sturdy Aluminum Plate around RJ45 Jacks
- Phosphor bronze with 6-50 micro inches gold plated
- Available with T568A'T568B wiring pattern and meeting the requirement of Cat 6 standard
- Color Coded TIA/EIA 568A(internahonal) and 568B(AT&T standard) wiring for easy installation
- Termination accepts 22.24 26 AWG (0.64, 0.5 and 0.4) solid wires
- Metal sheet: Corrosion resistant steel
- Plastic: fire self -extinguish high impact plastic



CAT6 PATCH PANEL

CAT6 UTP PATCH PANEL



CAT5E PATCH PANEL

CAT5E FTP 24-PORT PATCH PANEL



PRODUCTS DESCRIPTION

The patch panel is a 19 inch rack mountable RJ45 jack panels . Each panel has cutouts that accept virtually as snap-in jacks.the kits includes the new icon labels with plastic holders that you mount on the front of the panels for easy port identification . Blank anodized panels can be mounted directly to an EIA standard 19 inch relay back or cabinets

Features and benefits

- Design to mount to any standard 19" rac or cabinet
- 24-port Cat 5E shielded Patch panel
- Space saving high density 1U
- Black electrostatic Powder-Coated Steel: phosphor bronze with tin plating over nickel. Meet or exceed the requirement of ANSI/TIA/EIA 568B .2 .
- Use keystone jacks and keywtone inserts to configure your panel to accommodate a variety of schemes .
- Sturdy Aluminum Plate around RJ 45 Jacks
- Phosphor bronze with 6-50 micro inches gold plated
- Available with T568A/T566B wiring pattern and meeting the requirement of Cat 5E standard
- Color Coded TIA/EIA 568A(international| and 5688/ AT&T standard)
- Wiring for easy installation
- Metal sheel Corrosion resistant steel
- Plastic: fire self -extinguish high impact plastic

CAT 5E UTP 24-PORT PATCH PANEL

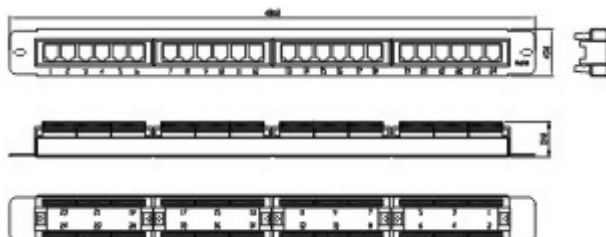


PRODUCTS DESCRIPTION

The patch panel is a 19 inch rack mountable RJ45 jack panels. Each panel has cutouts that accept virtually as snap-in jacks, the kits includes the new icon labels with plastic holders that you mount on the front of the panels for easy port identification . Blank anodized panels can be mounted directly for easy port identification . Blank anodized panels can be mounted directly to an EIA standard 19 inch relay back or cabinets

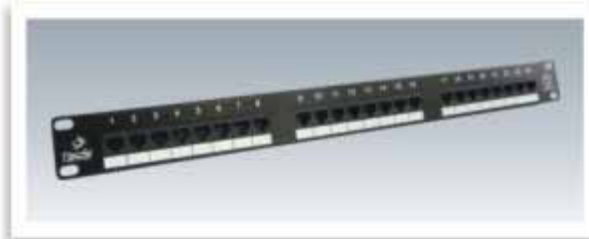
Features and benefits

- Design to mount to any standard 19" rack or cabinet
- 24-port Cat 5e unshielded Patch panel
- Space saving, high-density 1U
- Black Electrostatic Powder-Coated Steel: phosphor bronze with tin plating over nickel. Meet or exceed the requirement of ANSI/TIA/EIA 568B.2.
- Use keystone jacks and keywtone inserts to configure your panel to accommodate a variety of schemes .
- Sturdy Aluminum Plate around RJ 45 Jacks
- Phosphor bronze with 6-50 micro inches gold plated
- Available with T568A-T568B wiring pattern and meeting the requirement of Cat 5E standard
- Color Coded TIA/EIA568A(international| and 568B(AT&T standard) wiring for easy installation
- Termination accepts 22, 24 26 AWG (0.64. 0.5 and 0.4)solid wires
- Metal sheet: Corrosion resistant streets
- Plastic: fire self -extinguish high impact plastic

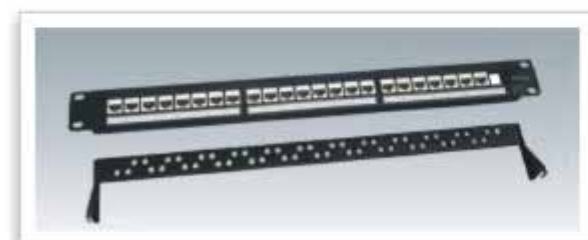
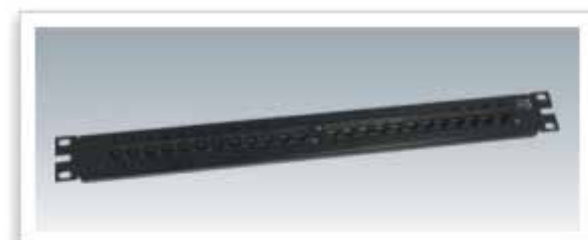


CAT5E PATCH PANEL

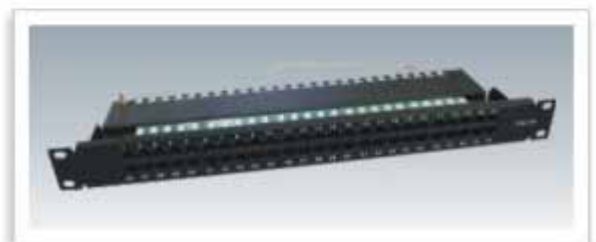
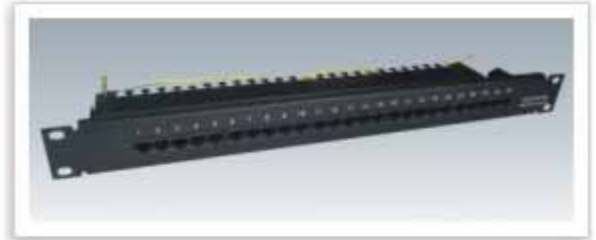
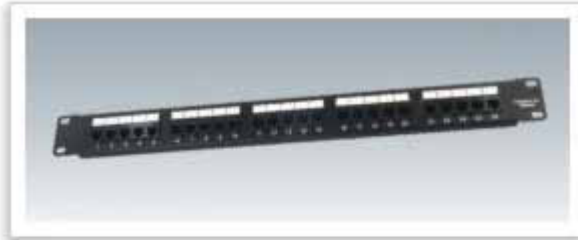
CAT5E UTP PATCH PANEL



OTHER STYLE



VOICE PATCH PANEL



PRODUCTS DESCRIPTION

Voice patch panel are the perfect solutions for bringing voice to your cable rack, pre-configure in 25 ports densities and designed specially for voice grade application .

Features and benefits

- Design to mount to any standard 19" rack or cabinet
- Space saving ,high-density 1U
- Black Electrostatic Powder-Coated Steel: phosphor bronze with tin plating over nickel
- 110& krone punch down tools are available
- Phosphor bronze with 6-50 micro inches gold plated
- Color Coded TIA/EIA 568A (international) and 568B (AT&T Standard) Wiring For Easy Installation
- Metal sheet: Corrosion resistant steel
- Plastic: fire self-extinguish high impact plastic

110 WRING BLOCKS

100 PAIRS RACK MOUNT 110 WIRING BLOCK



PRODUCTS DESCRIPTION

Rack-mount 110 wiring products attach to standard 19" wide racks to create compact, adaptable 110 termination field for voice and data. Panel comes in 100-, 200-pairs densities and termination 22-26 AWG solid copper wire.

Features and benefits

- Blocks are available in 100-200-pair for 19 inch rack mounting

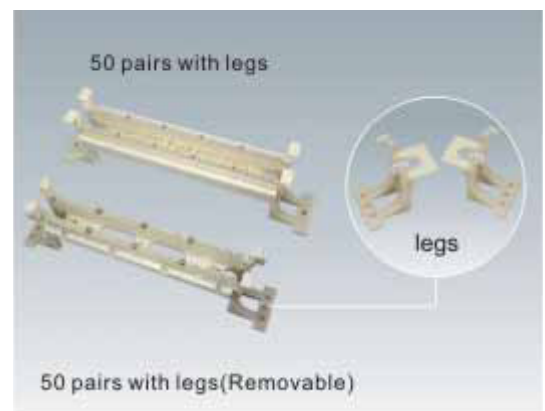
110 WRING BLOCKS

PRODUCTS DESCRIPTION

Wall-mount 110 wiring blocks create compact, adaptable 110 termination field for voice and data by mounting 110 wiring bases to the wall or a backboard. Bases come in 50-, 100- or 300-pair densities. The 50-pair bases may be ordered with or without standoff legs which provide more room behind the base for cable.

Features and benefits

- Type : 50-pairs rack mount 110 wiring block
- Available with legs or without legs to the wiring base
- Easy to adjust, easy to embed wires in
- Wiring blocks are designed to support voice and highspeed data application
- Offering a reliable and economical high-density system
- The terminal blocks accommodate 22-26 AWG with a insulation diameter of 0.4-0.64 mm
- IDC contract material: phosphor bronze with tin plating over nickel
- Available with T568 A, T568 B wiring pattern



CABLE MANAGEMENT

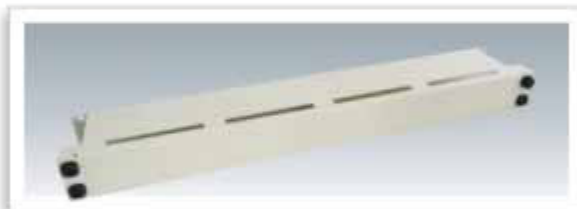
PRODUCTS DESCRIPTION



The horizontal cable management can be used with all patch panels, rack and cabinet mount products. It mounts on standard 19" racks or cabinets and provides a clean, beautiful and simple means of organizing from small to large bundles of cables and patch cord.

Features and benefits

- Feature: Standard EIA 19" rack and Cabinet mount
- Management improves the look of a closet or workstation, it is an essential element for easy adds, moves or changes. It is also crucial to maintaining cable integrity by ensuring resisted steel and ABS
- The panel is configured with 12 rings
- Color: black anodized
- Custom-made cable management is acceptable



UK STYLE FACEPLATE



PRODUCTS DESCRIPTION

The v/all plate is made from high-impact ABS plastic, making for years of durable use. Each delivers high speed of for all your high-speed applications to the desktop . Perfectly blends into the decor of your home or office. Protects and hides your network connections. Accepts all keystone inserts, standard 110 type IDC termination makes installation fast and easy.

Features and benefits

- One.two.four and six ports
- Designed for for Cat 5e or Cat 6 performance and meet EIA/TIA specifica-tions
- Fit for RJ45 keystone jack outlet plate
- Packing includes the modular faceplate and two mounting screws for Installation
- Material:PC or ABS
- Color: wtiite or Ivory

UK STYLE FACEPLATE - 1PORT



UK STYLE FACEPLATE - 2PORT



US STYLE FACEPLATE



PRODUCTS DESCRIPTION

The wall plate is made from high-impact ABS plastic, making for years of durable use. Each delivers high speed of for all your high-speed applications to the desktop.



Features and benefits

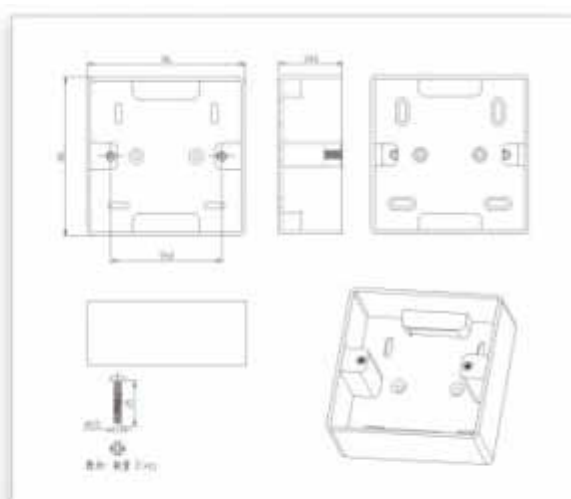
- One.two.four and six ports
- Designed for for Cat 5e or Cat 6 performance and meet EIA/TIA specifications
- Fit for RJ45 keystone jack outlet plate
- Packing includes the modular faceplate and two mounting screws for Installation
- Material: PC or ABS
- Color:white or Ivory

SURFACE MOUNT BOXES

Mount boxes



Presentation



SURFACE MOUNT BOXES & CONNECTION BOX

SURFACE MOUNT BOXES



CONNECTION BOX



CAT5e FTP

- Shielded/Argentine color
- Krone IDC block with colored lable
- Size: 66*33*26mm



CAT5e UTP

- Un-shielded/Black color
- Krone IDC block with colored lable
- Size: 66*36*26mm



CAT6 FTP

- Shielded/Argentine color
- Krone IDC block
- Size: 68.5*40.5*26mm



CAT6 UTP

- Un-shielded/Black color
- Krone IDC block
- Size: 84*37*23mm

TOOLS

CRIMPING / PUNCH / INSERTION / STRIPPING TOOL



Cut and crimping tool for 6P6C/6P4C



Cut and crimping tool for 8P8C



Cut and crimping tool for 4/6/8 poles modular connector



Cut and crimping tool for 8P8C/6P6C



Cut and crimping tool for 8P6C/6P6C/6P4C/6P2C



Cut and crimping tool for 8P8C



Cut and crimping tool for 8P8C/6P6C/6P4C/6P2C



Cut and crimping tool for 6P6C



For 10P10C/8P8C/6P6C/6P4C/6P2C



For 8P8C/6P6C/6P4C



For 8P8C/6P6C/6P4C/6P2C



For 8P8C

TOOLS

CRIMPING / PUNCH / INSERTION / STRIPPING TOOL



For 8P8C/6P6C/6P4C/4P4C/4P2C



For 8P8C



For 8P8C/6P6C/6P4C/4P4C/4P2C



Coaxial & fiber compression connector termination tool



USE ON 110/88 TYPE



USE ON 110/88 TYPE



Nortel type insertion tool for Nortel type terminal block



Multi-pair 110 style impact tool

