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#### Category 7 SSTP Solid Indoor Cable

#### **Specifications**

Meets ISO/IEC 11801 & IEC 61156-5, category 7 requirements Low Smoke Zero Halogen The cable meets UL VW-1, IEC 60332-1, CM fire safety standard  $\,$ 

#### Description

Shielded Copper cable, 4 pairs, Category 7, Solid, 600MHz 4 separately foil-shielded pairs General shield: wire braid Cable is used for indoor installation

#### **Materials**

Conductive material: Soft annealed electrolytic copper Conductor insulation: HDPE, film-porous-film structure

The cable jacket: LSZH

Shield: Separately shielded pairs with polyester aluminum foil General shield: tin Copper braid – 60% minimum

#### **Technical Characteristics**

Conductor diameter: 0.64 mm (0.025") (22 AWG)

Outer cable diameter: 8.2 mm (0.32")

Operating temperature: -30°C - +70°C (-22°F - +158°F)

Weight per 1000 ft (304.8 m): 21.3 kg (47.7 lbs) Standard package: 305m (1000 ft), 500 m (1640 ft)

#### **Electrical Characteristics**

Frequency , MHz	Pair Attenuation, dB/100m	NEXT losses, dB	RL, dB
4	3.6 (1.10)	85	24
10	5.8 (1.80)	85	27
16	7.4 (2.26)	85	27
20	8.3 ( <mark>2.53</mark> )	85	27
31.25	10.4 (3.2)	85	25
62.5	14. <mark>6 (4.45)</mark>	85	23
100	18.4 (5.61)	85	23
200	26.2 (7.98)	83	20
300	32.1 (9.78)	80	20
600	49 (14.93)	80	20

Conductor resistance at 20°C (68°F)

DC Resistance Unhalance

Resistance at frequency 1-600 MHz

Transfer impedance at frequency 1-10 MHz

Capacitive unbalance at frequency 1 kHz

Maximum voltage

Dielectric rigidity

Insulation resistance at 20°C (68°F)

Propagation velocity

Max propagation delay at frequency 1 MHz Max propagation delay at frequency 10 MHz Max propagation delay at frequency 100-600 MHz

Max derivation of propagation delay at frequency 1-600 MHz

80.0 Ohm/km (128.75 Ohm/mile)

2% max

 $100 \pm 15 \text{ Ohm}$ 

5 MOhm/m (1.52 MOhm/ft) max

1.2 pF/m (0.36 pF/ft) max

60 V RMS

700 V/min

152 MOhm/km (244.62 MOhm/mile) min

79-80%

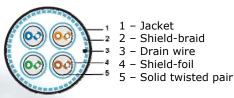
5.3 ns/m (1.61 ns/ft) 5.0 ns/m (1.52 ns/ft) 5.0 ns/m (1.52 ns/ft)

15 ns/100 m (4.57 ns/100 ft)

#### **Ordering Information**

HI7SSL-M i-Net Networks Horizontal Indoor Cable Category7 SSTP Solid 22AWG 4 Pair LSZH Milky Gray

M-Milky Gray, B-Blue, L-Black, G-Green, R-Red, Y-Yellow





#### Category6A UTP Solid Indoor Cable

#### **Specification**

Meets ANSI/EIA/TIA 568-B.2-10 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating Meets ISO/IEC 2nd edition 11801 Amendment 1. $\overset{\circ}{2}$  Meets ISO/IEC 61156-2 2nd edition & CENELEC EN 50288-10-1 Tested up to 650MHz

#### Description

Copper cable, 4 pairs, Category 6A, Solid, 500MHz Cable is used for indoor installation

Conductive material: Soft annealed electrolytic copper Conductor insulation: HDPE, film-porous-film structure

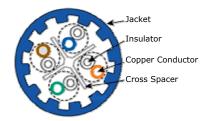
The cable jacket: PVC

#### **Technical Characteristic**

Conductor diameter:  $0.58 \pm 0.02$  mm (23AWG) Insulation diameter:  $1.1 \pm 0.01$  mm

Insulation thickness: Minimum 0.208 mm, Average 0.25 mm

Insulation elongation: Minimum 300% Insulation tensile strength: Minimum 1.682 Kg/mm² Sheath thickness: Minimum 0.75mm, Average 0.80 mm



Sheath diameter:  $10.5 \pm 0.3$  mm (0.41") Sheath elongation: Minimum 100%

Sheath tensile strength: Minimum 1.407 Kg/mm²
Operating temperature: -30°C - +70°C (-22°F - +158°F)
Weight per 1000 ft (304.8 m): 21.3 kg (47.7 lbs)

Standard package: 304.8 m (1000 ft)

#### **Electrical Characteristic**

Frequency , MHz	Pair Attenuation, dB/100m	NEXT losses, dB	PS NEXT, dB
1	2.1	74.3	72.3
10	5.9	59.3	57.3
100	19.1	44.3	42.3
200	27.6	39.8	37.8
250	31.1	38.3	36.3
300	34.3	37.1	35.1
400	40.1	35.3	33.3
500	45.3	33.8	31.8

Dielectric strength

Insulation resistance test

Conductor resistance at 20°C (68°F)

DC Resistance Unbalance

Pair-to-Ground Capacitance Unbalance

Impedance 1-500 MHz Mutual Capacitance

Spark Test

2.5kV/3 seconds

Min. 150MΩ/km

 $9.38\Omega/100$ m (2.9 $\Omega/100$ ft)

160pF/100m (51pF/100 ft)

5.6nF/m (1.7nF/ft) 2.5kV

#### **Ordering Information**

HI6AUS-M-C i-Net Networks Horizontal Indoor Cable Category6A UTP Solid 23AWG 4 Pair Milky Gray CM

M-Milky Gray, B-Blue, L-Black, G-Green, R-Red, Y-Yellow

c C-CM, L-LSZH, P-Plenum



#### Category6A Keystone Jack

#### Specification

Meets ANSI/EIA/TIA 568-B.2-10, IEEE802.3an Meets fire retardant UL94V rating Meets ISO/IEC 2nd edition 11801 Amendment 1.2 Meets EN 50173 Class EA specification RoHS compliant

#### **Description**

It is designed for 22-26 AWG solid conductors Horizontal & Vertical termination

#### **Material**

Housing: ABS UL94V-0 IDC: PC UL94V-0, accepts 22-26 AWG solid wire PCB: FR-4 1.6 mm (0.062") thick, 2 layers IDC contact: Phosphor bronze 2.54 micron (50 micro inches) gold over 1.27 micron (100 micro inches) nickel



#### **Electrical Characteristic**

Dielectric strength: 1000V RMS per minute

Current rating: 1.5 Amp Max. Insulation Resistance:  $500M\Omega$  Contact resistance:  $20M\Omega$ Temperature range: -10°C to +60°C Humidity: 10%~90% non condensing

#### **Ordering Information**

KJ6A-U-PD i-Net Networks Keystone Jack Category6A Unshielded Punch Down

U U-Unshielded, S-Shielded

PD—Punch Down, TL—Tool Less, PM—Panel Mount, FM—Floor Mount

#### Category6A Unshielded Patch Cord

#### **Specification**

Meets ANSI/EIA/TIA 568-B.2-10 requirements Meets ISO/IEC 2nd edition 11801 Amendment 1.2 Meets ISO/IEC 61156-2 2nd edition for stranded cable

#### Material

Conductor: 7 copper wires Ø0.20 mm (0.008"), 24 AWG
Insulation: High Density Polyethylene (HDPE)
Diameter of insulated conductor: 0.98 ± 0.05 mm (0.039" ± 0.002")

Number of pairs: 4
Color of Twisted Pairs: blue-white/blue, orange-white/orange,
green-white/green, brown-white/brown
Jacket: PVC 5.85 ± 0.2 mm

2 pieces Unshielded RJ-45 8P8C, category 6A, for patch cable Contact: Phosphor bronze, 2.54 micron (50 micro inches) gold over 1.27 micron (100 micro inches) nickel

Molded Boot Material: PVC

### **Ordering Information**

i-Net Networks Patch Cord Category6A Unshielded Stranded 24AWG 4Pair Milky Gray 3 Feet

M-Milky Gray, B-Blue, L-Black, G-Green, R-Red, Y-Yellow

03 03-3 Ft, 06-6 Ft, 10-10 Ft, 16-16 Ft





#### **Category6 UTP Solid Indoor Cable**

#### Specification

Meets ANSI/EIA/TIA 568-B.2-1 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating Meets plenum UL-910 rating Tested up to 350MHz

#### **Description**

Unshielded copper cable, 4 pairs, category 6, solid Cable is used for indoor installation

#### **Material**

Conductive material: Soft annealed electrolytic copper Conductor insulation: HDPE, film-porous-film structure The cable jacket: PVC / LSZH / Plenum

# JacketSolid Twisted Pair

#### **Technical Characteristic**

Conductor diameter:  $0.56-0.51\pm0.01$  mm (23-24 AWG) Insulated conductor diameter:  $0.99\pm0.2$  mm ( $0.038"\pm0.008"$ ) Outer cable diameter:  $6.2\pm0.2$  mm ( $0.24"\pm0.008"$ )

Jacket thickness: 0.4 mm (0.0157")

Pulling strength: 130 N
Minimum bend radius: 8xØ while installation, 6xØ while vertical cabling, 4xØ while horizontal cabling
Operating temperature: -20°C to +75°C (-4°F to +167°F)
Weight per 1000 ft (304.8 m): 24 AWG 11.5 kg (25.35 lbs) / 23 AWG 13.0 Kg (28.66 lbs)
Standard package: 304.8 m (1000 ft)

#### **Electrical Characteristic**

Frequency, MHz	RL	Attenuation, dB	NEXT, dB	PSNEXT, dB	ELFEXT, dB	PSELFEXT, dB
1.0	20.0	2.0	74.3	72.3	67.8	64.8
4.0	20.3	3.8	65.3	63.3	55.8	52.8
8.0	24.5	5.3	60.8	58.8	49.7	46.7
10.0	25.0	6.0	59.3	57.3	47.8	44.8
16.0	25.0	7.6	56.3	54.3	43.7	40.7
20.0	25.0	8.5	54.8	52.8	41.8	38.8
25.0	24.3	9.5	53.3	51.3	39.8	36.8
31.25	23.6	10.7	51.9	49.9	37.9	34.9
62.5	21.5	15.4	47.4	45.4	31.9	28.9
100.0	20.1	19.8	44.3	42.3	27.8	24.8
200.0	18.0	29.0	39.8	37.8	21.8	18.8
250.0	17.3	32.8	38.3	36.3	19.8	16.8

Conductor resistance at 20°C (68°F)

DC Resistance Unbalance

Pair-to-Ground Capacitance Unbalance

Impedance 1-250 MHz Mutual Capacitance

Spark Test

9.38Ω100m (2.9Ω/100ft)

330pF/100m (101pF/100ft)

85Ω-115Ω

5.6nF/m (1.7nF/ft)

2.5kV

#### **Ordering Information**

HI06US3-M-C i-Net Networks Horizontal Indoor Cable Category6 UTP Solid 23AWG 4Pair Milky Gray CM HI06US4-M-C i-Net Networks Horizontal Indoor Cable Category6 UTP Solid 24AWG 4Pair Milky Gray CM

M-Milky Gray, B-Blue, L-Black, G-Green, R-Red, Y-Yellow

Ċ C-CM, L-LSZH, P-Plenum



#### **Category6 UTP Stranded Cable**

#### **Specification**

Meets ANSI/EIA/TIA 568-B.2-1 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating

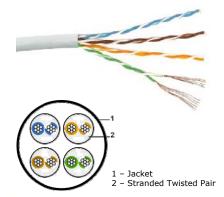
#### **Description**

Unshielded Copper, 4 pairs, category 6, stranded Cable is used for indoor installation

#### Material

Conductive material: wire made of soft annealed electrolytic copper Conductor insulation: HDPE, film-porous-film structure

The cable jacket: PVC / LSZH



#### **Technical Characteristic**

Conductor diameter:  $7 \times 0.2 \text{ mm} \pm 0.01 \text{ mm}$  (7"  $\times 0.008$ "  $\pm 0.0004$ ") (24 AWG) Insulated conductor diameter:  $1.03 \pm 0.2 \text{ mm}$  (0.04 "  $\pm 0.008$ ") Outer cable diameter:  $5.3 \pm 0.2 \text{ mm}$  (0.2"  $\pm 0.008$ ") Jacket thickness: 0.4 mm (0.0157") Minimum bend radius:  $8 \times \emptyset$  while installation,  $6 \times \emptyset$  while vertical cabling,  $4 \times \emptyset$  while horizontal cabling Operating temperature:  $-5^{\circ}\text{C} - +60^{\circ}\text{C}$  ( $+23^{\circ}\text{F} - +140^{\circ}\text{F}$ ) Weight per 1000 ft (304.8 m): 24 AWG 11.5 kg (25.35 lbs) Standard package: 304.8 m (1000 ft)

#### **Electrical Characteristic**

Frequency, MHz	RL	Attenuation, dB	NEXT, dB	PSNEXT, dB	ELFEXT, dB	PSELFEXT, dB
1.0	20.0	2.4	74.3	72.3	67.8	64.8
4.0	23.0	4.5	65.3	63.3	55.8	52.8
8.0	24.5	6.4	60.8	58.8	49.7	46.7
10.0	25.0	7.1	59.3	57.3	47.8	44.8
16.0	25.0	9.1	56.2	54.2	43.7	40.7
20.0	25.0	10.2	54.8	52.8	41.8	38.8
25.0	24.2	11.4	53.3	51.3	39.8	36.8
31.25	23.3	12.8	51.9	49.9	37.9	34.9
62.5	20.7	18.5	47.4	45.4	31.9	28.9
100.0	19.0	23.8	44.3	42.3	27.8	24.8
200.0	16.4	34.8	39.8	37.8	21.8	18.8
250.0	15.6	39.4	38.3	36.3	19.8	16.8

Conductor resistance at 20°C (68°F)

DC Resistance Unbalance

Pair-to-Ground Capacitance Unbalance

Impedance 1-250 MHz Mutual Capacitance

Spark Test

9.38Ω/100m (2.9Ω/100ft)

330pF/100m (101pF/100ft)

85Ω-115Ω

5.6nF/m (1.7nF/ft)

2.5kV

#### **Ordering Information**

HI06UR-M-C i-Net Networks Horizontal Cable Category6 UTP Stranded 24AWG 4Pair Milky Gray CM

M M-Milky Gray, B-Blue, L-Black, G-Green, R-Red, Y-Yellow

C C-CM, L-LSZH

Jacket

3 - Spacer

Solid Twisted Pair



#### Category 6 UTP Solid Outdoor Cable

#### **Specification**

Meets ANSI/EIA/TIA 568-B.2-1 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating Meets plenum UL-910 rating Tested up to 350MHz

#### Description

Unshielded Copper cable, 4 pairs, category 6, solid Cable is used for outdoor installation

#### Material

Conductive material: wire made of soft annealed electrolytic copper

Conductor insulation: HDPE, film-porous-film structure The cable inner jacket: PVC / LSZH / Plenum

The Cable outer jacket: UV resistant black PE

#### **Technical Characteristic**

Conductor diameter: 0.56- $0.51 \pm 0.01$  mm (23-24 AWG) Insulated conductor diameter:  $0.99 \pm 0.2$  mm ( $0.038" \pm 0.008"$ ) Outer cable diameter:  $6.2 \pm 0.2$  mm ( $0.24" \pm 0.008"$ ) Jacket thickness: 0.65 mm (0.025") Pulling strength: 130 N maximum

Minimum bend radius: 8xØ while installation, 6xØ while vertical cabling, 4xØ while horizontal cabling

Conductor elongation: 14% minimum Operating temperature:  $-40^{\circ}\text{C} - +60^{\circ}\text{C}$  ( $-40^{\circ}\text{F} - +140^{\circ}\text{F}$ ) Weight per 1000 ft (304.8 m): 24 AWG 12.5 kg (27.56 lbs) / 23 AWG 14.0 Kg (30.86 lbs) Standard package: 304.8 m (1000 ft)

#### **Electrical Characteristic**

Frequency, MHz	RL	Attenuation, dB	NEXT, dB	PSNEXT, dB	ELFEXT, dB	PSELFEXT, dB
1.0	20.0	2.0	65.3	62.3	63.8	60.8
4.0	23.0	4.0	56.3	53.3	51.7	48.7
8.0	24.5	5.8	51.8	48.8	45.7	42.7
10.0	25.0	6.5	50.3	47.3	43.8	40.8
16.0	25.0	8.2	47.3	44.3	39.7	36.7
20.0	25.0	9.3	45.8	42.8	37.7	34.7
25.0	24.3	10.4	44.3	41.3	35.8	32.8
31.25	23.6	11.7	42.9	39.9	33.9	30.9
62.5	21.5	17.0	38.4	35.4	27.8	24.8
100.0	20.1	22.0	35.3	32.3	23.8	20.8
200.0	18.6	27.9	33.2	30.3	20.7	17.8
250.0	17.3	31.9	30.2	28.3	17.9	14.7

Conductor resistance at 20°C (68°F)

DC Resistance Unbalance

Pair-to-Ground Capacitance Unbalance

Impedance 1-250 MHz Mutual Capacitance

Spark Test

9.38Ω/100m (2.86Ω/100ft)

330pF/100m (101pF/100ft)

85Ω-115Ω

5.6nF/m (1.7nF/ft)

2.5kV

#### **Ordering Information**

HO06USL-3-C i-Net Networks Horizontal Outdoor Cable Category6 UTP Solid 23AWG 4Pair Black PE CM

3 3-23AWG, 4-24AWG

C-CM, L-LSZH, P-Plenum



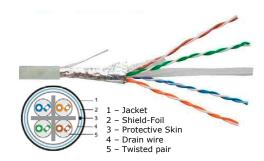
#### Category 6 FTP Solid Indoor Cable

#### **Specification**

Meets ANSI/EIA/TIA 568-B.2-1 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating Meets plenum UL-910 rating

#### Description

Foiled Copper cable, 4 pairs, category 6, solid 4 foiled twisted pairs General shield: aluminum foil Cable is used for indoor installation



#### Material

Conductive material: wire made of soft annealed electrolytic copper

Conductor insulation: HDPE, film-porous-film structure

The cable jacket: PVC / LSZH / Plenum
Shield: 4 pair is foiled with polyester aluminum foil, which covers 100% of twisted pair
General shield: An aluminum tape shield is helically applied over the cable core with a minimum overlap of 25% or 5 mm (0.19"), thickness – 0.025 mm (0.001"), width – 20 mm (0.78")

#### **Technical Characteristic**

Conductor diameter:  $0.56-0.51\pm0.01$  mm (23-24 AWG) Insulated conductor diameter: 1.56 mm (0.06") Outer cable diameter: 8.4 mm (0.33") Jacket thickness: 0.5 mm (0.019") Pulling strength: 130 N maximum

Minimum bend radius: 9xØ while installation, 7xØ while vertical cabling, 5xØ while horizontal cabling

Conductor elongation: 14% minimum

Operating temperature: -20°C - +60°C (-4°F - +140°F)

Weight per 1000 ft (304.8 m): 24 AWG 12.5 kg (27.56 lbs) / 23 AWG 14.5 kg (31.97 lbs)

Standard package: 304.8 m (1000 ft)

#### **Electrical Characteristic**

Frequency, MHz	RL	Attenuation, dB	NEXT, dB	PSNEXT, dB	ELFEXT, dB	PSELFEXT, dB
1.0	20.0	2.0	65.3	62.3	63.8	60.8
4.0	23.0	4.0	56.3	53.3	51.7	48.7
8.0	24.5	5.8	51.8	48.8	45.7	42.7
10.0	25.0	6.5	50.3	47.3	43.8	40.8
16.0	25.0	8.2	47.3	44.3	39.7	36.7
20.0	25.0	9.3	45.8	42.8	37.7	34.7
25.0	24.3	10.4	44.3	41.3	35.8	32.8
31.25	23.6	11.7	42.9	39.9	33.9	30.9
62.5	21.5	17.0	38.4	35.4	27.8	24.8
100.0	20.1	22.0	35.3	32.3	23.8	20.8
200.0	19.5	25.6	32.2	29.8	19.6	18.7
250.0	18.7	29.3	29.4	26.4	16.8	16.8

Max conductor resistance at 20°C (68°F)

Max Resistance Unbalance

Max pair-to-ground capacitance unbalance

Characteristic Impedance at 1-250 MHz

Mutual capacitance Spark Test

9.38Ω/100m (2.9Ω/100ft)

330pF/100m (101pF/100ft)

85Ω-115Ω

5.6nF/m (1.7nF/ft)

2.5kV

#### **Ordering Information**

HI06FSM-3-C i-Net Networks Horizontal Indoor Cable Category6 FTP Solid 23AWG 4Pair Milky Gray CM

3-23AWG, 4-24AWG

Ċ C-CM, L-LSZH, P-Plenum



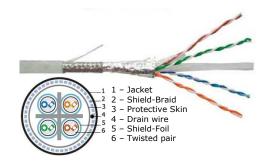
#### **Category6 SFTP Solid Indoor Cable**

#### **Specification**

Meets ANSI/EIA/TIA 568-B.2-1 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating Meets plenum UL-910 rating

#### Description

Shielded Copper cable, 4 pairs, category 6, solid 4 foil-shielded twisted pairs General shield: aluminum foil and wire braid Cable is used for indoor installation



#### Material

Conductive material: wire made of soft annealed electrolytic copper

Conductor insulation: HDPE, film-porous-film structure
The cable jacket: PVC / LSZH / Plenum
Shield: 4 pair is shielded with polyester aluminum foil, which covers 100% of twisted pair

General shield: An aluminum tape shield is helically applied over the cable core with a minimum overlap of 25% or 5 mm (0.19"), thickness -0.025 mm (0.001"), width - 20 mm (0.78")

#### **Technical Characteristic**

Conductor diameter:  $0.56-0.51\pm0.01$  mm (23-24 AWG) Insulated conductor diameter: 1.56 mm (0.06") Outer cable diameter: 8.4 mm (0.33") Jacket thickness: 0.5 mm (0.019") Pulling strength: 130 N maximum

Minimum bend radius: 9xØ while installation, 7xØ while vertical cabling, 5xØ while horizontal cabling

Conductor elongation: 14% minimum Operating temperature:  $-20^{\circ}\text{C} - +60^{\circ}\text{C}$  (-4°F  $- +140^{\circ}\text{F}$ ) Weight per 1000 ft (304.8 m): 24 AWG 13.5 kg (29.76 lbs) / 23 AWG 15.7 Kg (34.61 lbs) Standard package: 304.8 m (1000 ft)

#### **Electrical Characteristic**

Frequency, MHz	RL	Attenuation, dB	NEXT, dB	PSNEXT, dB	ELFEXT, dB	PSELFEXT, dB
1.0	20.0	2.0	65.3	62.3	63.8	60.8
4.0	23.0	4.0	56.3	53.3	51.7	48.7
8.0	24.5	5.8	51.8	48.8	45.7	42.7
10.0	25.0	6.5	50.3	47.3	43.8	40.8
16.0	25.0	8.2	47.3	44.3	39.7	36.7
20.0	25.0	9.3	45.8	42.8	37.7	34.7
25.0	24.3	10.4	44.3	41.3	35.8	32.8
31.25	23.6	11.7	42.9	39.9	33.9	30.9
62.5	21.5	17.0	38.4	35.4	27.8	24.8
100.0	20.1	22.0	35.3	32.3	23.8	20.8
200.0	19.5	25.6	32.2	29.8	19.6	18.7
250.0	18.7	29.3	29.4	26.4	16.8	16.8

Max conductor resistance at 20°C (68°F)

Max Resistance Unbalance

Max pair-to-ground capacitance unbalance

Characteristic Impedance at 1-250 MHz

Mutual capacitance Spark Test

9.38Ω/100m (2.9Ω/100ft)

E E E Doz

330pF/100m (101pF/100ft)

85Ω-115Ω

5.6nF/m (1.7nF/ft)

2.5kV

#### **Ordering Information**

HI06SSM-3-C i-Net Networks Horizontal Indoor Cable Category6 SFTP Solid 23AWG 4Pair Milky Gray CM

3 3-23AWG, 4-24AWG

C C-CM, L-LSZH, P-Plenum



#### Category 6 SSTP Solid Indoor Cable

#### **Specification**

Meets ANSI/EIA/TIA 568-B.2-1 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating Meets plenum UL-910 rating

#### Description

Shielded Copper cable, 4 pairs, category 6, solid 4 separately foil-shielded twisted pairs Cable is used for indoor installation

#### **Material**

Conductive material: wire made of soft annealed electrolytic copper Conductor insulation: HDPE The cable jacket: PVC / LSZH / Plenum

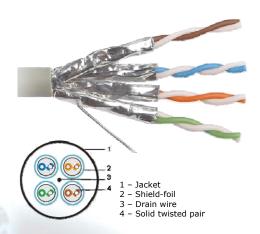
Every pair is separately 100% shielded with polyester aluminum foil



Conductor diameter:  $0.56 \pm 0.01$  mm (0.022"  $\pm 0.0004$ ") (23 AWG) Insulated conductor diameter: 1.43 mm (0.056")

Outer cable diameter: 7.8 mm (0.3") Jacket thickness: 0.7 mm (0.0275") Pulling strength: 130 N maximum

Minimum bend radius:  $8x\emptyset$  while installation,  $6x\emptyset$  while vertical cabling,  $4x\emptyset$  while horizontal cabling



Conductor elongation: 14% minimum Rip cord has a breaking strength of 10 kg (98 N) Drain wire diameter: 0.5 mm (0.01968") Installation temperature is  $-5^{\circ}\text{C} - +50^{\circ}\text{C}$  (+23°F - +122°F) Operating temperature:  $-20^{\circ}\text{C} - +60^{\circ}\text{C}$  (-4°F - +140°F) Weight per 1000 ft (304.8 m): 23 AWG 16.4 kg (36.16 lbs) Standard package: 304.8 m (1000 ft)

#### **Electrical Characteristic**

Frequency, MHz	Pair Attenuation, dB/100m (dB/100ft)	NEXT, dB	PS NEXT, dB	PP ELFEXT, dB/100m (dB/100ft)	PS ELFEXT, dB/100m (dB/100ft)	RL, dB
1	2 (0.6)	80	77	75 (22.86)	72 (21.94)	20
4	3.8 (1.16)	80	77	75 (22.86)	72 (21.94)	23
10	6 (1.83)	80	77	75 (22.86)	72 (21.94)	25
16	7.6 (2.32)	80	77	75 (22.86)	72 (21.94)	25
20	8.5 (2.59)	80	77	75 (22.86)	72 (21.94)	25
31.25	10.7 (3.26)	80	77	75 (22.86)	72 (21.94)	23.6
62.5	15.4 (4.69)	80	77	75 (22.86)	72 (21.94)	22
100	19.8 (6.03)	80	77	70 (21.34)	67 (20.42)	21
125	22.4 (6.83)	70	67	65 (19.81)	62 (19.90)	20
200	29 (8.84)	70	67	60 (18.29)	57 (17.37)	19
250	35.6 (10.85)	70	67	55 (16.77)	52 (15.04)	18

Maximum conductor resistance at 20°C (68°F)

Resistance unbalance

Resistance at the frequency of 1-250 MHz

Transfer impedance at the frequency of 1 MHz Transfer impedance at the frequency of 10 MHz Transfer impedance at the frequency of 30 MHz

Insulation resistance at 20°C (68°F)

Capacitive unbalance at the frequency of 1 kHz

Capacity at the frequency of 1 kHz

Maximum voltage Dielectric rigidity Propagation velocity

Max. derivation of propagation delay at freq. of 1-250 MHz

73.0Ω/km (117.48Ω/mile)

2% max.

 $100\Omega \pm 15\%$  $50M\Omega/m$  (15.24MΩ/ft) max.

 $100M\Omega/m$  (30.48MΩ/ft) max.

 $200M\Omega/m$  (60.69MΩ/ft) max.

152M $\Omega$ /km (244.62M $\Omega$ /mile) min.

1.5pF/m (0.46pF/ft)

43pF/m (13.1pF/ft)

60V RMS

700V per minute

80%

25ns/100m (7.62ns/100 ft)

#### **Ordering Information**

HI06TSM-C i-Net Networks Horizontal Indoor Cable Category6 SSTP Solid 23AWG 4Pair Milky Gray CM

c C-CM, L-LSZH, P-Plenum



#### **Category6 Patch Panel**

#### **Specification**

Meets ANSI/TIA/EIA-568-B.2 Category 6 requirements

Meets TIA/EIA TSB-40

Meets ISO/IEC Generic Cabling Standard 11801:2002 ed.2.0 Meets CENELEC Generic Cabling Standard EN50173 – 1:2002 Meets EN 50173-1 specification

#### **Description**

19" standard size for mounting in racks and cabinets This patch panel is designed for 22-26 AWG solid conductors Height: 1U (24 ports), 2U (48 ports)

#### Material

Housing: ABS 94V-0 IDC: PC UL94V-0

PCB: FR-4 1.6 mm (0.06") thick, 2 layers
Contacts: 0.35 mm (0.014") phosphor bronze with 1.27 micron (50 micro inches) gold plated contact area

Metal housing: 1.6 mm (0.06") thick metal

#### **Construction Characteristic**

- · Modern design and mounting simplicity
- Color marking of conductors according to T568B and T568A
- Numeral marking of ports on the front side of the panel
   Color and numeral marking of IDC modules on the rear side
   IDC Dual contacts provide minimal crosstalk

- 110 type punch down tool is used for cable termination
  LCI Lighting Cable Identification Technology for saving cost and
- time on cable identification job (*LED Patch Panel Only*)

  Two LED statuses (Green/Red) for identifying on-line or off-line to check connectivity to active device (*LED Patch Panel Only*)



PP06-UL-24







#### **Electrical Characteristic**

According to UL1863 Current rating: 1.5A Max. Voltage rating: 150V Contact Resistance: 20MΩ Insulation Resistance: 500MΩ

Dielectric Withstand Voltage: 1000V AC RMS, 60Hz/1min

#### **Ordering Information**

PP06-UL-24 i-Net Networks Patch Panel Category6 Unshielded LED Dual IDC 24 Port

**UL**—Unshielded LED Dual IDC, **US**—Unshielded Std. Dual IDC, **SS**—Shielded Std. Dual IDC, **KU**—Keystone Unloaded, **KL**—Keystone Loaded UL

24 24-24 Port, 48-48 Port

## Category6 Keystone Jack

#### **Specification**

Meets TIA/EIA-568-A Category 6 requirements

Meets TIA/EIA TSB-40

Meets ISO/IEC Generic Cabling Standard 11801 Meets CENELEC Generic Cabling Standard EN50173

#### **Description**

It is designed for 22-26 AWG solid conductors Horizontal & Vertical termination

#### Material

Housing: ABS UL94V-0

Housing: ABS 01.94V-0 IDC: PC UL94V-0, accepts 22-26 AWG Solid Wire PCB: FR-4 1.6 mm (0.062") thick, 2 layers Contact: 0.45 mm (0.018") in diameter, phosphor and bronze with 1.27 micron (50 micro inches) gold plating

#### Structural Feature

Category identification on the front side of the panel Conductor color code according to T568B and T568A Contact color and numerical marking

i-Net Networks patch cord usage provides the best connection.

# KJ06-U-PD KJ06-S-PD





K106-U-PM

K106-U-FM



#### **Electrical Characteristic**

According to UL1863 Current rating: 1.5 Amp Max. Voltage rating: 150V Contact resistance: 20MΩ

Insulation Resistance:  $500M\Omega$  Dielectric Withstand Voltage: 1000V AC RMS, 60Hz/1min

#### **Ordering Information**

KJ06-U-PD i-Net Networks Keystone Jack Category6 Unshielded Punch Down

U U-Unshielded, S-Shielded

PD-Punch Down, TL-Tool Less, PM-Panel Mount, FM-Floor Mount



#### Category 6 Unshielded Patch Cord

#### **Material**

#### Cable

Conductor: 7 copper wires Ø0.20 mm (0.008"), 24 AWG

Diameter of insulated conductor: 0.98 ± 0.05 mm (0.039" ± 0.002")
Number of pairs: 4

Color of Twisted Pairs: blue-white/blue, orange-white/orange, green-white/green, brown-white/brown

Jacket: PVC Ø6, 8±0, 2 mm

#### Plua

2 pieces Unshielded RJ-45 8P8C, category 6, for patch cable Contact: 1.27 micron (50 micro inches) gold plated copper alloy Molded Boot Material: PVC



PC06U-M-01 i-Net Networks Patch Cord Category6 Unshielded Stranded 24AWG 4Pair Milky Gray 1 Feet

М M-Milky Gray, B-Blue, L-Black, G-Green, R-Red, Y-Yellow

01 01-1 Ft, 02-2 Ft, 03-3 Ft, 06-6 Ft, 10-10 Ft, 16-16 Ft, 32-32 Ft, 49-49 Ft, 65-65 Ft, 98-98 Ft



#### Material

#### Cable

Conductor: 7 copper wires Ø0.20 mm (0.008"), 24 AWG

Insulation: High Density Polyethylene (HDPE)
Diameter of insulated conductor: 0.98 ± 0.05 mm (0.039" ± 0.002")

Color of Twisted Pairs: blue-white/blue, orange-white/o green-white/green, brown-white/brown

Grounding wire: 0.20 mm/7 tinned copper Jacket: PVC Ø6, 8±0, 2 mm

#### Plug

2 pieces Shielded RJ-45 8P8C, category 6, for patch cable, shielded

Contact: 1.27 micron (50 micro inches) gold plated copper alloy

Molded Boot Material: PVC

#### **Ordering Information**

PC06S-M-03 i-Net Networks Patch Cord Category6 Shielded Stranded 24AWG 4Pair Milky Gray 3 Feet

М M-Milky Gray, B-Blue, L-Black, G-Green, R-Red, Y-Yellow

03-3 Ft, 06-6 Ft, 10-10 Ft, 16-16 Ft

#### Category6 Modular Plug

#### Material

Housing: PC UL94V-2

Contacts: copper alloy with 1.27 micron (50 micro inches) gold plated

Shield: copper alloy, covering – nickel

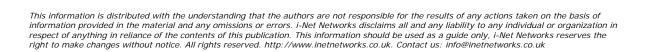
#### **Ordering Information**

P06-**U** i-Net Networks Modular Plug Category6 Unshielded

U U-Unshielded, S-Shielded









#### **Category6 Cross Connect System**

#### **Mounting Panel**

100 and 200 pair 110-type panel for interconnection wiring Mounting: Rack / Wall Mounting

Color: white

#### **Connection Block**

Housing: PC/ABS

PIN: phosphor-bronze with gold plating

Standard: Category6 Types: 4 Pair / 5 Pair Color: white

#### **Connection Clip**

Housing: PC/ABS Cover: transparent PC

PIN: phosphor-bronze with gold plating

#### **Patch Cord**

Conductor: 7 copper wires Ø0.20 mm (0.008"), 24 AWG

Diameter of insulated conductor:  $0.98 \pm 0.05$  mm  $(0.039" \pm 0.002")$ 

Number of pairs: 1/2/4 Color of twisted pairs: blue-white/blue, orange-white/o

Jacket: PVC Ø2.6  $\pm$  0.2 mm (0.1"  $\pm$  0.008")/PVC Ø4.2  $\pm$  0.2 mm (0.17"  $\pm$  0.008")/PVC Ø5.5  $\pm$  0.2 mm (0.22"  $\pm$  0.008") Jacket color: light grey

Plug 1 Piece 8P8C

1 or 2 pieces, 1 or 2 or 4-pair 110 type, for stranded (patch) cable

Material: Poly Carbonate (PC)
PIN: Phosphor bronze with gold plating

#### **Ordering Information**

X06S-R-050 i-Net Networks Cross Connect System Category6 Rack Mount 100Pair 110 Type

R R-Rack Mount, W-Wall Mount without Leg, L-Wall Mount with Leg

050-50 Pair, 100-100 Pair, 200-200 Pair

X06M-W i-Net Networks Cross Connect Cable Manager Wall Mount

W-Wall Mount, R-Rack Mount

X06B-4 i-Net Networks Cross Connection Block Category6 4Pair

4-4 Pair, 5-5 Pair

X06C-1 i-Net Networks Cross Connection Clip Category6 1Pair

1 1-1 Pair, 2-2 Pair, 4-4 Pair

X06P-1-3 i-Net Networks Cross Connect Patch Cord Category 6 Stranded 24AWG 1Pair Milky Grey 3 Feet

1 1-1 Pair, 2-2 Pair, 4-4 Pair

03-3 Feet, 06-6 Feet, 10-10 Feet





#### Category5e UTP Solid Indoor Cable

#### **Specification**

Meets ANSI/EIA/TIA 568-B.2 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating Meets plenum UL-910 rating

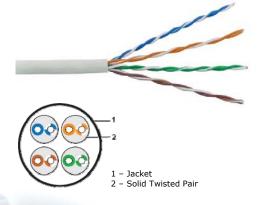
#### Description

Unshielded Copper cable, 4 pairs, category 5e, solid Cable is used for indoor installation

#### Material

Conductive material: Soft annealed electrolytic copper

Conductor insulation: HDPE The cable jacket: PVC / LSZH / Plenum



#### **Technical Characteristic**

Conductor diameter: 0.51 mm (0.02") (24 AWG) Insulated conductor diameter: 0.9  $\pm$  0.2 mm (0.035"  $\pm$  0.008") Outer cable diameter: 5.1  $\pm$  0.2 mm (0.2"  $\pm$  0.008") Jacket thickness: 0.4 mm (0.015")

Minimum bend radius: 8xØ while installation, 6xØ while vertical cabling, 4xØ while horizontal cabling

Conductor elongation: 14% minimum Rip cord has a breaking strength of 10 kg (98 N)

Pulling strength: 92 N Breaking strength: 600 N

Dreaking Streight: 600 r. Installation temperature: -5°C - +50°C (+23°F - +122°F) Operating temperature:-20°C - +75°C (-4°F - +167°F) Weight per 1000 ft (304.8 m): 10.5 kg (23.15 lbs) Standard package: 304.8 m (1000 ft)

#### **Electrical Characteristic**

Frequency, MHz	RL	Attenuation, dB	NEXT, dB	PSNEXT, dB	ELFEXT, dB	PSELFEXT, dB
0.772	-	1.8	67.0	64.0	-	-
1.0	20.0	2.0	65.3	62.3	63.8	60.8
4.0	23.0	4.0	56.3	53.3	51.7	48.7
8.0	24.5	5.8	51.8	48.8	45.7	42.7
10.0	25.0	6.5	50.3	47.3	43.8	40.8
16.0	25.0	8.2	47.3	44.3	39.7	36.7
20.0	25.0	9.3	45.8	42.8	37.7	34.7
25.0	24.3	10.4	44.3	41.3	35.8	32.8
31.25	23.6	11.7	42.9	39.9	33.9	30.9
62.5	21.5	17.0	38.4	35.4	27.8	24.8
100.0	20.1	22.0	35.3	32.3	23.8	20.8

Conductor resistance at 20°C (68°F)

DC Resistance Unbalance

Pair-to-Ground Capacitance Unbalance

Impedance 0.772-100 MHz

Mutual Capacitance

Spark Test

9.38Ω/100m (2.9Ω/100ft)

330pF/100m (101pF/100ft)

85Ω-115Ω

5.6nF/m (1.7nF/ft)

2.5kV

#### **Ordering Information**

i-Net Networks Horizontal Indoor Cable Category5e UTP Solid 24AWG 4Pair Milky Grey CM

M-Milky Grey, B-Blue, L-Black, G-Green, R-Red, Y-Yellow

C-CM, L-LSZH, P-Plenum



#### Category5e UTP Stranded Cable

#### **Specification**

Meets ANSI/EIA/TIA 568-B.2 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating Meets plenum UL-910 rating

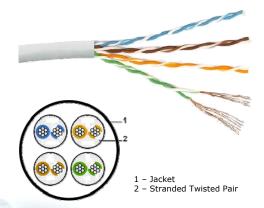
#### Description

Unshielded Copper cable, 4 pairs, category 5e, solid Cable is used for indoor installation

#### Material

Conductive material: Soft annealed electrolytic copper

Conductor insulation: HDPE The cable jacket: PVC / LSZH / Plenum



#### **Technical Characteristic**

Conductor diameter:  $7 \times 0.18$  mm  $\pm 0.01$  mm (7"  $\times 0.007$ "  $\pm 0.0004$ ") (24 AWG) Insulated conductor diameter:  $0.90 \pm 0.2$  mm (0.035"  $\pm 0.008$ ") Outer cable diameter:  $5.1 \pm 0.02$  mm (0.2"  $\pm 0.008$ ") Jacket thickness: 0.4 mm (0.0157")

Minimum bend radius:  $8x\emptyset$  while installation,  $6x\emptyset$  while vertical cabling,  $4x\emptyset$  while horizontal cabling Installation temperature:  $-5^{\circ}\text{C} - +50^{\circ}\text{C}$  ( $+23^{\circ}\text{F} - +122^{\circ}\text{F}$ )

Operating temperature:  $-20^{\circ}\text{C} - +75^{\circ}\text{C}$  ( $-4^{\circ}\text{F} - +167^{\circ}\text{F}$ )

Weight per 1000 ft (304.8 m): 10.5 kg (23.15 lbs)

Standard package: 304.8 m (1000 ft)

#### **Electrical Characteristic**

Frequency, MHz	RL	Attenuation, dB	NEXT, dB	PSNEXT, dB	ELFEXT, dB	PSELFEXT, dB
0.772	-	1.8	67.0	64.0		-
1.0	20.0	2.0	65.3	62.3	63.8	60.8
4.0	23.0	4.0	56.3	53.3	51.7	48.7
8.0	24.5	5.8	51.8	48.8	45.7	42.7
10.0	25.0	6.5	50.3	47.3	43.8	40.8
16.0	25.0	8.2	47.3	44.3	39.7	36.7
20.0	25.0	9.3	45.8	42.8	37.7	34.7
25.0	24.3	10.4	44.3	41.3	35.8	32.8
31.25	23.6	11.7	42.9	39.9	33.9	30.9
62.5	21.5	17.0	38.4	35.4	27.8	24.8
100.0	20.1	22.0	35.3	32.3	23.8	20.8

Conductor resistance at 20°C (68°F)

DC Resistance Unbalance

Pair-to-Ground Capacitance Unbalance

Impedance 0.772-100 MHz

Mutual Capacitance

Spark Test

 $9.38\Omega/100m (2.9\Omega/100ft)$ 

5%

330pF/100m (101pF/100 ft)

85Ω-115Ω

5.6nF/m (1.7nF/ft)

2.5kV

#### **Ordering Information**

HI5EUR-M-C i-Net Networks Horizontal Indoor Cable Category5e UTP Stranded 24AWG 4Pair Milky Gray CM

M-Milky Grey, B-Blue, L-Black, G-Green, R-Red, Y-Yellow

C-CM, L-LSZH



#### Category5e FTP Solid Indoor Cable

#### Specification

Meets ANSI/EIA/TIA 568-B.2 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating Meets plenum UL-910 rating

#### Description

Shielded Copper cable, 4 pairs, category 5e, solid Shield: Aluminum foil Cable is used for indoor installation

# Jacket - Shield - foil 3 - Drain wire4 - Protective skin 5 - Solid twisted pair

#### Material

Conductive material: wire made of soft annealed electrolytic copper Conductor insulation: HDPE

The cable jacket: PVC / LSZH / Plenum

An aluminum tape shield is helically applied over the cable core with a minimum overlap of 5 mm (0.19")

#### **Technical Characteristic**

Conductor diameter: 0.51 mm (0.02") (24 AWG)Insulated conductor diameter:  $0.9 \pm 0.2 \text{ mm} (0.035" \pm 0.008")$ Outer cable diameter:  $5.4 \pm 0.2 \text{ mm} (0.21" \pm 0.008")$ Jacket thickness: 0.4 mm (0.0157")Minimum bend radius:  $8x\emptyset$  while installation,  $6x\emptyset$  while vertical cabling,  $4x\emptyset$  while horizontal cabling

Conductor elongation: 14% minimum

Rip cord has a breaking strength of 10 kg (98 N)

Drain wire diameter: 0.5 mm (0.019")

Pulling strength: 92 N

Breaking strength: 400 N

Installation temperature:  $-5^{\circ}\text{C} - +50^{\circ}\text{C} \ (+23^{\circ}\text{F} - +122^{\circ}\text{F})$ Operating temperature:  $-20^{\circ}\text{C} - +75^{\circ}\text{C} \ (-4^{\circ}\text{F} - +167^{\circ}\text{F})$ Weight per 1000 ft (304.8 m): 11.5 kg (25.35 lbs) Standard package: 304.8 m (1000 ft)

#### **Electrical Characteristic**

Frequency, MHz	RL	Attenuation, dB	NEXT, dB	PSNEXT, dB	ELFEXT, dB	PSELFEXT, dB
0.772		1.8	67.0	64.0	-	-
1.0	20.0	2.0	65.3	62.3	63.8	60.8
4.0	23.0	4.0	56.3	53.3	51.7	48.7
8.0	24.5	5.8	51.8	48.8	45.7	42.7
10.0	25.0	6.5	50.3	47.3	43.8	40.8
16.0	25.0	8.2	47.3	44.3	39.7	36.7
20.0	25.0	9.3	45.8	42.8	37.7	34.7
25.0	24.3	10.4	44.3	41.3	35.8	32.8
31.25	23.6	11.7	42.9	39.9	33.9	30.9
62.5	21.5	17.0	38.4	35.4	27.8	24.8
100.0	20.1	22.0	35.3	32.3	23.8	20.8

Max conductor resistance at 20°C (68°F)

Max Resistance Unbalance

Max pair-to-ground capacitance unbalance

Characteristic Impedance at 0.772-100 MHz

Mutual capacitance

Spark Test

9.38Ω/100m (2.86Ω/100ft)

330pF/100m (101pF/100ft)

 $85\Omega\text{-}115\Omega$ 

5.6nF/m (1.7nF/ft)

2.5kV

#### **Ordering Information**

HI5EFSM-C i-Net Networks Horizontal Indoor Cable Category5e FTP Solid 24AWG 4Pair Milky Gray CM

c C-CM, L-LSZH, P-Plenum



#### Category5e SFTP Solid Indoor Cable

#### **Specifications**

Meets ANSI/EIA/TIA 568-B.2 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating Meets plenum UL-910 rating

#### Description

Shielded Copper cable, 4 pairs, category 5e, solid Shield: Aluminum foil and wire braid Cable is used for indoor installation

# Jacket Shield-braid - Drain wire Protective skin - Solid twisted pair

#### **Materials**

Conductive material: wire made of soft annealed electrolytic copper Conductor insulation: HDPE

The cable jacket: PVC

An aluminum tape shield is helically applied over the cable core with a minimum overlap of 25% or 5 mm (0.19"), thickness – 0.025 mm (0.001"), width – 20 mm (0.78"), and braid of 16 tinned Copper wires

#### **Technical Characteristics**

Conductor diameter:  $7 \times 0.2$  mm (0.008") (24 AWG) Insulated conductor diameter:  $0.93 \pm 0.2$  mm (0.036"  $\pm 0.008$ ") Outer cable diameter:  $5.6 \pm 0.2$  mm (0.22"  $\pm 0.008$ ") Jacket thickness: 0.4 mm (0.0157")

Minimum bend radius:  $8x\emptyset$  while installation,  $6x\emptyset$  while vertical cabling,  $4x\emptyset$  while horizontal cabling Conductor elongation: 14% minimum

Conductor elongation: 14% minimum
Drain wire diameter: 0.5 mm (0.019")
Operating temperature: -4°F to +167°F (-20°C to +75°C)
Weight per 1000 ft (304.8 m): 12.5 kg (26.89 lbs)
Standard package: 304.8 m (1000 ft)

#### **Electrical Characteristics**

Frequency, MHz	RL	Attenuation, dB	NEXT, dB	PSNEXT, dB	ELFEXT, dB	PSELFEXT, dB
0.772	-	1.8	67.0	64.0	-	-
1.0	20.0	2.0	65.3	62.3	63.8	60.8
4.0	23.0	4.0	56.3	53.3	51.7	48.7
8.0	24.5	5.8	51.8	48.8	45.7	42.7
10.0	25.0	6.5	50.3	47.3	43.8	40.8
16.0	25.0	8.2	47.3	44.3	39.7	36.7
20.0	25.0	9.3	45.8	42.8	37.7	34.7
25.0	24.3	10.4	44.3	41.3	35.8	32.8
31.25	23.6	11.7	42.9	39.9	33.9	30.9
62.5	21.5	17.0	38.4	35.4	27.8	24.8
100.0	20.1	22.0	35.3	32.3	23.8	20.8

Max conductor resistance at 20°C (68°F)

Max Resistance Unbalance

Max pair-to-ground capacitance unbalance

Characteristic Impedance at 0.772-100 MHz

Mutual capacitance Spark Test

 $9.38\Omega/100m (2.9\Omega/100ft)$ 

330pF/100m (101pF/100ft)

85Ω-115Ω

5.6nF/m (1.7nF/ft)

2.5kV

#### **Ordering Information**

HI5ESSM-C i-Net Networks Horizontal Indoor Cable Category5e SFTP Solid 24AWG 4Pair Milky Gray CM

c C-CM, L-LSZH, P-Plenum



## **Category5e UTP Solid Riser Cable**

#### Specification

Meets ANSI/EIA/TIA 568-B.2 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating

#### Description

Unshielded Copper, 25, 50, 100 pairs, category 5e, solid Cable is used for indoor/outdoor installation

Conductive material: Soft annealed electrolytic copper

Conductor insulation: HDPE
The cable jacket: PVC, PE Jelly, PE Armored



Frequency, MHz	Max Attenuation, dB/100 m (ft)	PS-NEXT, dB	PS-ACR, dB/100m (ft)
0.772	1.8 (0.55)	64	62.2 (19.0)
1.0	2.0 (0.6)	62	60.0 (18.3)
4.0	4.1 (1.3)	53	48.9 (14.9)
8.0	5.80 (1.8)	48	42.2 (12.9)
10.0	6.5 (2.0)	47	40.5 (12.3)
16.0	8.2 (2.5)	44	35.8 (10.9)
20.0	9.3 (2.8)	42	32.8 (10.0)
25.0	10.4 (3.2)	41	30.6 (9.3)
31.25	11.7 (3.6)	39	28.3 (8.6)
62.5	17.0 (5.2)	35	18.0 (5.5)
100.0	22.0 (6.7)	32	10.0 (3.0)





Max. dc resistance at 20°C (68°F)	93.8Ω/km (151.3Ω/mile)
Resistance at 1-100 MHz	100Ω ±15%
Resistance unbalance	3%
Capacity at the frequency of 1 kHz	50±4 pF/m (15.3±1 pF/ft)
Capacitive unbalance at 1 kHz	3300pF/km (5322.6pF/mile)
Maximum voltage	300V
Min. unbalance losses at 64 kHz	43dB
Insulating strength	700V RMS
Propagation velocity	68%
Max. propagation delay: at the frequency of 1 MHz at the frequency of 10 MHz at the frequency of 100 MHz	5.7ns/m (1.74ns/ft) 5.4ns/m (1.64ns/ft) 5.3ns/m (1.61ns/ft)
Derivation propagation delay	35ns/100m (10.67ns/100ft)
Min. insulating resistance	$5G\Omega/km$ (8.05GΩ/mile)

#### **Technical Characteristics**

Parameters	25 Pair	50 Pair	100 Pair
Conductor diameter	0.51 mm (24 AWG)	0.51 mm (24 AWG)	0.51 mm (24 AWG)
Insulated conductor diameter	0.9 mm (0.035")	0.9 mm (0.035")	0.9 mm (0.035")
Outer cable diameter	11.4 mm (0.45")	17.8 mm (0.70")	24.6 mm (0.97")
Jacket thickness	1.0 mm (0.039")	1.0 mm (0.039")	1.0 mm (0.039")
Minimum bend radius	10xØ	10xØ	10xØ
Conductor elongation	Min 14 <mark>%</mark>	Min 14%	Min 14%
Rip cord breaking strength	10 kg (98 N)	10 kg (98 N)	10 kg (98 N)
Pulling strength	500 N	500 N	500 N
Breaking strength	600 N	600 N	600 N
Installation temperature	-10°C to +40°C	-10°C to +40°C	-10°C to +40°C
Operating temperature	-40°C to +70°C	-10°C to +50°C	-10°C to +50°C
Weight per Std. Pack	65.2 kg (143.7 lbs)	103.6 kg (228.5 lbs)	174 kg (383.7 lbs)
Standard package	304.8 m (1000 ft)	304.8 m (1000 ft)	304.8 m (1000 ft)

#### **Ordering Information**

R5EX-I-25 i-Net Networks Riser Cable Category5e UTP Solid 24AWG CMX Indoor PVC Milky Gray 25 Pair I-Indoor PVC Milky Gray, J-Outdoor Jelly Filled PE Black, A-Outdoor Armored PE BlackI 25 25-25 Pair, 50-50 Pair, 1H-100 Pair



#### Category5e UTP Solid Jumper Cable

#### **Specification**

Meets ANSI/EIA/TIA 568-B.2 requirements Meets general purpose cable UL-1581 CM rating

#### **Description**

Unshielded Copper cable, 2 pairs, category 5, solid Cable is used for indoor installation

#### **Material**

Conductive material: wire made of soft annealed electrolytic copper

Conductor insulation: HDPE The cable jacket: PVC (polyvinyl chloride)

**Technical Characteristic** 

Conductor diameter: 0.51 mm (0.02") (24 AWG)

Insulated conductor diameter:  $0.92 \pm 0.2$  mm (0.036"  $\pm 0.008$ ") Outer cable diameter:  $4.6 \pm 0.2$  mm (0.18"  $\pm 0.008$ ")

Jacket thickness: 0.4 mm (0.0157")

Minimum bend radius: 4xØ Conductor elongation: 14% minimum

Rip cord has a breaking strength of 10 kg (98 N)

Conductor resistance at 20°C (68°F)

DC Resistance Unbalance

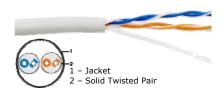
Pair-to-Ground Capacitance Unbalance

Impedance 0.772-100 MHz

Mutual Capacitance

Spark Test

Solid Twisted Pair



Installation temperature:  $-5^{\circ}\text{C} - +40^{\circ}\text{C}$  ( $+23^{\circ}\text{F} - +104^{\circ}\text{F}$ ) Operating temperature:  $-20^{\circ}\text{C} - +75^{\circ}\text{C}$  ( $-4^{\circ}\text{F} - +167^{\circ}\text{F}$ ) Weight: 1 Pair 100 ft (30.48 m) -0.5 kg (1.10 lbs) / 2 Pair 1000 ft (304.8 m) -5.5 kg (12.12 lbs) Std pack: 1 Pair—30.48m, 100m, 200m (100 ft, 328.1 ft, 656.2 ft), 2 Pair—304.8 m (1000 ft)

9.38Ω/100m (2.9Ω/100ft)

5%

330pF/100m (101pF/100ft)

85Ω-115Ω

5.6nF/m (1.7nF/ft)

2.5kV

#### **Ordering Information**

i-Net Networks Jumper Cable Category5e UTP Solid 24AWG 1 Pair (w/o Jacket)

1-1 Pair (w/o Jacket), 2-2 Pair Milky Gray

#### **Category5e Surface Mount Outlet**

#### **Specification**

Meets ANSI/TIA/EIA-568-B.2 category 5e & TIA/EIA TSB-40 Meets ISO/IEC generic cabling standard 11801 Meets CENELEC generic cabling standard EN50173

#### Material

Housing: ABS UL94V-0 IDC: PC UL94V-0

PCB: FR-4 1.6 mm (0.06") thick, 2 layers



#### **Electrical Characteristic**

In accordance with UL1863 Current rating: 1.5A max Voltage rating: 150V Contact resistance: 20MΩ

Dielectric withstand voltage: 1000V AC RMS, 60Hz 1min

#### **Ordering Information**

SM5E-U-1 i-Net Networks Surface Mount Category 5e Unshielded 1 Port

U-Unshielded, S-Shielded 1-1 Port, 2-2 Port

#### Category5e Modular Plug

#### **Material**

Housing: PC UL94V-2

Contacts: Copper alloy with 1.27 micron (50 micro inches) gold plating

Shield: copper alloy, covering - nickel

#### **Ordering Information**

P5E-U i-Net Networks Modular Plug Category5e Unshielded

U **U**—Unshielded, **S**—Shielded





#### Category5e Patch Panel

#### Specification

Meets ANSI/TIA/EIA-568-B.2 Category 5e requirements

Meets TIA/EIA TSB-40

Meets ISO/IEC Generic Cabling Standard 11801:2002 ed.2.0 Meets CENELEC Generic Cabling Standard EN50173 — 1:2002

#### Description

19" standard size for mounting in racks and cabinets This patch panel is designed for 22-26 AWG solid conductors Height: 1U (24 ports), 2U (48 ports) Horizontal & Vertical termination

#### Material

Housing: ABS 94V-0 IDC: PC UL94V-0

PCB: FR-4 1.6 mm (0.06") thick, 2 layers
Contacts: 0.35 mm (0.014") phosphor w/ bronze 1.27 micron
(50 micro inches) gold plating contact area

Metal housing: 1.6 mm (0.06") thick metal

#### **Construction Characteristic**

- Color marking of conductors according to T568B and T568A Numeral marking of ports on the front side of the panel
- Space for additional marking
- Color numeral marking of IDC on the rear side of the panel i-Net Networks patch cord usage provides the best connection
- IDC Dual contacts provide minimal crosstalk
   110 type punch down tool is used for cable termination

- Removable shield cover (for shielded patch panel only) Ground bus (for shielded patch panel only) Rear cable manager (for shielded and keystone patch panels only)

# 300 1 Hz 300 1 Hz 300

PP5E-US-24



PP5E-US-48



PP5F-SS-24



PP5E-KU-24

#### **Electrical Characteristic**

According to UL1863 Current rating: 1.5A max Voltage rating: 150V Contact Resistance:  $20M\Omega$ Insulation Resistance:  $500M\Omega$ 

Dielectric withstand voltage: 1000V AC RMS, 60Hz/1min

#### **Ordering Information**

PP5E-**US**-24 i-Net Networks Patch Panel Category5e Unshielded Dual IDC 24 Port

**UL**—Unshielded LED Dual IDC, **US**—Unshielded Std. Dual IDC, **SS**—Shielded Std. Dual IDC, **KU**—Keystone Unloaded, **KL**—Keystone Loaded US

#### 24 24-24 Port, 48-48 Port

#### Category5e Keystone Jack

#### **Specification**

Meets TIA/EIA-568-A Category 5e requirements. Meets TIA/EIA TSB-40 Meets ISO/IEC Generic Cabling Standard 11801 Meets CENELEC Generic Cabling Standard EN50173

#### Description

It is designed for 22-26 AWG solid conductors Horizontal & Vertical termination

#### Material

Housing: ABS UL94V-0

IDC: PC UL94V-0, accepts 22-26 AWG Solid Wire PCB: FR-4 1.6 mm (0.062") thick, 2 layers Contact: 0.45 mm (0.018") in diameter, phosphor and bronze with

1.27 micron (50 micro inches) gold plating

#### **Structural Feature**

Contact color and numerical marking

Category identification on the front side of the panel Conductor color code according to T568B and T568A



#### K15E-S-PD



KJ5E-U-TL



KJ5E-U-PM K15F-U-FM





#### **Electrical Characteristic**

According to UL1863 Current rating: 1.5A Max. Voltage rating: 150V Contact resistance:  $20M\Omega$ 

Insulation Resistance:  $500M\Omega$  Dielectric Withstand Voltage: 1000V AC RMS, 60Hz/1min

#### **Ordering Information**

KJ5E-U-PD i-Net Networks Keystone Jack Category5e Unshielded Punch Down

U U-Unshielded, S-Shielded

PD PD—Punch Down, TL—Tool Less, PM—Panel Mount, FM—Floor Mount



#### Category5e Unshielded Patch Cord

#### **Material**

#### Cable

Conductor: 7 copper wires Ø0.20 mm (0.008"), 24 AWG

Diameter of insulated conductor:  $0.98 \pm 0.05$  mm (0.039"  $\pm 0.002$ ")

Number of pairs: 4 Color of twisted pairs: blue-white/blue, orange-white/orange, green-white/green, brown-white/brown Jacket: PVC  $\emptyset$ 5.5  $\pm$  0.2 mm (0.22"  $\pm$  0.008")

2 pieces RJ-45 8P8C Contact: 1.27 micron (50 micro inches) gold plated copper alloy

Molded Boot Material: PVC

#### **Ordering Information**

i-Net Networks Patch Cord Category5e Unshielded Stranded 24AWG 4Pair Milky Gray 01 Ft PC5EU-M-01

M-Milky Gray, B-Blue, L-Black, G-Green, R-Red, Y-Yellow

01-1 Ft, 02-2 Ft, 03-3 Ft, 06-6 Ft, 10-10 Ft, 16-16 Ft, 32-32 Ft, 49-49 Ft, 65-65 Ft, 98-98 Ft

#### Category5e Shielded Patch Cord

#### **Material**

#### Cable

Conductor: 7 copper wires Ø0.20 mm (0.008"), 24 AWG Insulation: High Density Polyethylene (HDPE) Diameter of insulated conductor: 0.98 ± 0.05 mm (0.039" ± 0.002")

Number of pairs: 4
Color of twisted pairs: blue-white/blue, orange-white/orange, green-white/green, brown-white/brown

Shield: Aluminum Foil
Drain wire: 7 wires Ø0.20 mm (0.008")
Jacket: PVC Ø5.5 ± 0.2 mm (0.22" ± 0.008")

2 pieces RJ-45 8P8C Contact: 1.27 micron (50 micro inches) gold plated copper alloy

Molded Boot Material: PVC

#### **Ordering Information**

PC5ES-M-03 i-Net Networks Patch Cord Category5e Shielded Stranded 24AWG 4Pair Milky Gray 01 Ft

M-Milky Gray, B-Blue, L-Black, G-Green, R-Red, Y-Yellow М

03 03-3 Ft, 06-6 Ft, 10-10 Ft, 16-16 Ft

# **Universal Modular Face Plate & Back Box**

#### **Specification**

Standard: European Style Face Plate Housing: ABS UL 94V-0

Back Box Housing: PVC Face Plate Size: 86 x 86 mm (3.39" x 3.39") Back Box Size: 85 x 85 mm (3.35" x 3.35") Face Plate Density: 1-Port and 2-Ports Back Box Depth: 32mm, 42mm and 45mm















#### Ordering Information

FPP-1-PP i-Net Networks Face Plate PVC White 1 Port

1-1 Port, 2-2 Port

PP-Plain Plate Plain Holder, PA-Plain Plate Angled Holder, PP

EP-Aesthetic Plate Plain Holder, EA-Aesthetic Plate Angled Holder

FPA-PL i-Net Networks Face Plate Accessory

> PL—Plain Plate, ES—Aesthetic Plate. PH—Plain Holder, AH—Angled Holder,

QB—Quarter Blank, HB—Half Blank
LM—Duplex Multimode LC Adapter, LS—Duplex Singlemode LC Adapter

BB-32 i-Net Networks Back Box 85x85 White 32mm Depth

32 32-32mm Depth, 42-42mm Depth, 45-45mm Depth

PL



#### **Category3 UTP Riser Solid Cable**

#### Specification

Meets EIA/TIA 568-B for category 3 requirements Meets general purpose cable UL-1581 CM rating Meets fire retardant low smoke IEC60332-1 rating

#### Description

Unshielded Copper cable, 10, 20, 30, 50, 100 pairs, category 3, solid. Cable is used for indoor/outdoor installation

#### Material

Conductive material: soft annealed electrolytic copper

Conductor insulation: HDPE The cable jacket: PVC, PE with Jelly

#### **Electrical Characteristic**

Max DC Resistance at 20°C (68°F)	9.38Ω/100m (2.9Ω/100 ft)	Maximum voltage	300V
Max Resistance Unbalance	3%	Characteristic Impedance 1-16 MHz	85Ω-115Ω
Max Capacitance unbalance – pair- to-ground at 1kHz	330pF/100m (101pF/100ft)	Min Relative Velocity of Propagation at 10 MHz	0.585
Max attenuation at 20°C (68°F) At 772 kHz At 1 MHz At 4 MHz At 8 MHz At 10 MHz	2.2dB/100m (0.67dB/100ft) 2.6dB/100m (0.79dB/100ft) 5.6dB/100m (1.70dB/100ft) 8.5dB/100m (2.59dB/100ft) 9.7dB/100m (2.96dB/100ft)	Min worst pair to pair NEXT loss at 772 KHz At 1 MHz At 4 MHz At 8 MHz At 10 MHz	43dB 41dB 32dB 27dB 26dB
At 16 MHz	13.1dB/100m (3.99dB/100ft)	At 16 MHz	23dB

Min worst pair Structural Return Loss (SRL) upto 10 MHz-12dB; At 16 MHz-10dB

#### **Technical Characteristics**

Parameters	10 Pair	20 Pair	30 Pair	50 Pair	100 Pair
Conductor diameter	0.41~0.51 mm (26~24 AWG)	0.41~0.51 mm (26~24 AWG)	0.41~0.51 mm (26~24 AWG)	0.41~0.51 mm (26~24 AWG)	0.41~0.51 mm (26~24 AWG)
Insulated conductor diameter	0.9 mm (0.03 <mark>5")</mark>	0.9 mm (0.035")	0.9 mm (0.035")	0.9 mm (0.035")	0.9 mm (0.035")
Outer cable diameter	7.5 mm (0.295")	9.5 mm (0.374")	11 mm (0.433")	15 mm (0.590")	20.0 mm (0.787")
Jacket thickness	1.0 mm (0.039")	1.0 mm (0.039")	1.0 mm (0.039")	1.0 mm (0.039")	1.0 mm (0.039")
Maximum strand pitch	100 mm (3.937")	100 mm (3.937")	100 mm (3.937")	150 mm (5.9")	150 mm (5.9")
Minimum bend radius	6xØ	6xØ	6xØ	8xØ	8xØ
Conductor elongation	Min 14%	Min 14%	Min 14%	Min 14%	Min 14%
Operating temperature	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C
Weight per Std. Pack	32.0 kg (70.55 lbs)	51.2 kg (112.9 lbs)	67.2 kg (148.1 lbs)	96 kg (211.6 lbs)	169 kg (372.6 lbs)
Standard package	500 m (1640 ft)	500 m (1640 ft)	500 m (1640 ft)	304.8 m (1000 ft)	304.8 m (1000 ft)

#### **Ordering Information**

R34X- <b>I</b> -10	i-Net Networks Riser Indoor Cable Category3 UTP Solid 24AWG 10 Pair CMX
R36X- <b>I-10</b>	i-Net Networks Riser Indoor Cable Category3 UTP Solid 26AWG 10 Pair CMX
I	I-Indoor PVC Milky Grey,  J-Outdoor PE Jelly Filled Black,  A-Outdoor PE Armored Black
10	<b>10</b> —10 Pair, <b>20</b> —20 Pair, <b>30</b> —30 Pair, <b>50</b> —50 Pair, <b>1H</b> —100 Pair



#### **Category3 Telephone Patch Panel**

#### **Specification**

Meets ANSI/TIA/EIA-568-B.2 Category 5

Meets TIA/EIA TSB-40

Meets ISO/IEC Generic Cabling Standard 11801 Meets CENELEC Generic Cabling Standard EN50173

#### Description

Standard size for mounting in 19" racks and cabinets This patch panel is designed for 22 - 26 AWG solid conductors Height: 1U (25 Ports), 2U (50 Ports)

Vertical termination

Telephone layout, 2 pairs for port 3,6,4,5

#### Material

Housing: PC 94V-0

IDC: PC UL94V-0 PCB: FR-4 1.6 mm (0.06") thick, 2 layers

Contacts: 0.35 mm (0.014") phosphor bronze with 1.27 micron (50

micro inches) gold plating contact area

Metal housing: 1.6 mm (0.06") thick of metal



#### **Construction Characteristic**

Meets ANSI/TIA/EIA-568-B.2 Category 5 Modern design and simplicity of mounting
Numeral marking of ports on the front side of the panel
Numeral marking of IDC modules on the rear side of the panel i-Net Networks patch cord usage provides the best connection Dual IDC contacts provide minimal crosstalk 110 type punch down tool is used for cable termination

#### **Electrical Characteristics**

According to UL1863 Current rating: 1.5À max Voltage rating: 150V Contact resistance:  $20M\Omega$  Insulation resistance:  $500M\Omega$ 

Dielectric withstand voltage: 1000V AC RMS, 60Hz/1min

#### **Ordering Information**

PP3-25 i-Net Networks Telephone Patch Panel Category3 25 Port

25-25 Port, 50-50 Port 25

#### Category3 Telco Pigtail

#### Description

The plug & socket used to connect to telephone stations Unshielded Copper cable, 25 pairs, category 3, solid Cable termination with the help of crimping tool

#### Material

Conductive material: soft annealed electrolytic copper

Conductor insulation: HDPE Cable jacket: PVC

Housing: ABS black

Insulator: noryl/ polyphenylene oxide Pin contacts: phosphor bronze with gold plating

#### **Operating Characteristic**

Temperature range:  $-67^{\circ}F$  to  $+221^{\circ}F$  ( $-55^{\circ}C$  to  $+105^{\circ}C$ )

Maximum cable diameter: 10 mm (0.4")

# **Ordering Information**

TP3M-06 i-Net Networks Telco Pigtail Category3 25Pair 50Pin Male 6 Feet

06-6 Feet, 10-10 Feet, 16-16 Feet, 32-32 Feet

#### Category3 Keystone Jack

#### Description

Accepts 1, 2 or 3-pair solid conductor

#### Material

Housing: ABS UL94V-0

IDC: PC UL94V-0, Accept 22-26 AWG Solid Wire

#### Structural Feature

Conductor color code according to T568B and T568A Contacts color marking of on the transparent module cover Linear conductor layout

Conductor connection by simple cover latching

#### **Ordering Information**

KJ3-N-64 i-Net Networks Keystone Jack Category3 Non PCB 6P4C KJ3-P-64 i-Net Networks Keystone Jack Category3 PCB 6P4C



#### **Electrical Characteristic**

Min Relative Velocity of Propagation at 10 MHz 0.585

Current rating

1000V / Minute Dielectric strength  $1000M\Omega$  / Minute Insulator resistance

Contact resistance Max 20MΩ







#### **Electrical Characteristic**

According to UL1863 Current rating: 1.5A Max Voltage rating: 150V Contact resistance:  $20M\Omega$ 

Insulation Resistance:  $500 M\Omega$  Dielectric Withstand Voltage: 1000 V AC RMS, 60 Hz/1 min



#### **Category3 Voice Distribution**

#### **Mounting Block**

Multiples of 10 pair panel for voice interconnection wiring

Type: Wall, Rack, Floor Standing Housing: ABS UL94V, Metal Housing

#### 10 Pair Module

10-pair connection & disconnection modules

Housing: ABS/PBT Contact: phosphor-bronze

#### **Connection Cable**

2-pole Test Cable, 6P2C 4-pole Test Cable, 6P4C 2-pole Test Cable, Alligator Clip 4-pole Test Cable, Alligator Clip

Housing: ABS/PBT Contact: phosphor-bronze



#### **Ordering Information**

V3W-050	i-Net Networks Voice DB Category3 Wall Mount 50Pair Unloaded
V3W-100	i-Net Networks Voice DB Category3 Wall Mount 100Pair Unloaded
V3W-200	i-Net Networks Voice DB Category3 Wall Mount 200Pair Unloaded
V3R-150	i-Net Networks Voice DB Category3 Rack Mount 150Pair Unloaded
V3R-300	i-Net Networks Voice DB Category3 Rack Mount 300Pair Unloaded
V3F-0690	i-Net Networks Voice DB Category3 Floor Standing 690Pair Unloaded
V3F-1380	i-Net Networks Voice DB Category3 Floor Standing 1380Pair Unloaded
V3M-C	i-Net Networks Voice Module Category3 10Pair Connection
V3M-D	i-Net Networks Voice Module Category3 10Pair Disconnection
V3C-R2	i-Net Networks Voice Cable Category3 RJ11 6P2C 6 Feet
V3C-A2	i-Net Networks Voice Cable Category3 Alligator 2-Pole 6 Feet

#### **Category3 Surface Mount Outlet**

#### **Specification**

Meets TIA/EIA TSB-40

Meets ISO/IEC generic cabling standard 11801 Meets CENELEC generic cabling standard EN50173

#### Material

Housing: ABS UL94V-0 IDC: PC UL94V-0

PCB: FR-4 1.6 mm (0.06") thick, 2 layers



#### **Electrical Characteristic**

In accordance with UL1863 Current rating: 1.5A max Voltage rating: 150V

Contact resistance:  $20M\Omega$ Dielectric withstand voltage: 1000 V AC RMS, 60Hz 1min

#### **Ordering Information**

SM3-1-64 i-Net Networks Surface Mount Outlet Category 3 1Port 6P4C SM3-2-64 i-Net Networks Surface Mount Outlet Category3 2Port 6P4C

#### Category3 Modular Plug

#### Material

Housing: PC UL94-2

Contacts: copper alloy with 0.23 micron (6 micro inches) gold plating











#### **Ordering Information**

i-Net Networks Modular Plug Category3 4P2C

**42**—4P2C, **44**—4P4C, **62**—6P2C, **64**—6P4C, **66**—6P6C 42



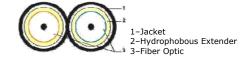
#### **Fiber Optic Indoor Cable**

#### **Specification**

The cable meets EIA-TIA 455 and IEC-60794 Optical characteristics meets ISO/IEC 11801 Meets IEC 60332-1 fire safety standard

#### Description

Fiber optic cable, multi-mode and single-mode, 2 fibers General purpose indoor LAN cable Suitable for installation in a work area, premises wiring, patch cords Short distance data transmission



#### Material

Conductive material: optical fiber 9/125µ, 50/125µ, 62.5/125µ Fiber insulation: tight buffer

Armoring and waterproofing: dielectric aramid strength yarns Outer jacket: flame-retardant PVC (polyvinylchloride)

250 N

220 N/cm (558.8 N/in)

-5°C - +50°C (+23°F - +122°F) -25°C - +75°C (-13°F - +167°F)

-25°C - +75°C (-13°F - +167°F)

1.5 N\*m (4.92 N\*ft)

1000 m (3280.84 ft)

1000 cycles

15.4 kg

#### **Technical Characteristic**

Fiber diameter  $125 \pm 1 \mu m$ Tension force (operation) The insulated fiber diameter  $242 \pm 7 \mu m$ Crushing force Fiber jacket diameter 0.9 mm (0.03") Impact resistance 2.8 x 6.0 mm (0.11 x 0.24") Cable outer diameter Flexing resistance Fiber jacket tensile strength 1.3-8.9 N Cabling temperature Fiber jacket out-of-roundness 1% or less Operation temperature Minimum bend radius 42 mm (1.65") Storage temperature Max. number of bends 10 000 times Weight of 1 km of cable Tension force (cabling) 450 N Standard packing

#### **Ordering Information**

HIFLN-50-02 i-Net Networks Horizontal Indoor Fiber Cable Loose Tube Multimode 50/125μ 2 Core Non LSZH
 HIFLL-50-02 i-Net Networks Horizontal Indoor Fiber Cable Loose Tube Multimode 50/125μ 2 Core LSZH
 50 —Multimode 50/125μ, 62—Multimode 62.5/125μ, 09—Singlemode 9/125μ

02—2Core

#### Fiber Optic FTTH (Fiber-To-The-Home) G.657A Dry Cable

#### Specification

The cable meets EIA-TIA 455 and IEC-60794 Optical characteristics meets ISO/IEC 11801 Meets IEC 60332-1 fire safety standard

#### Description

Fiber optic cable, single-mode, 2 fibers General purpose FTTH indoor LAN cable Suitable for installation in a home Short distance data transmission

# Leasing stempler 4.6

#### **Technical Characteristic**

Cable Standard	G.657A	Weight	15 Kg/Km
Core	2	Attenuation dB/km	$\leq$ 0.4 at 1310nm, $\leq$ 0.3 at 1550nm
Туре	Singlemode 9/125µ	Tensile Strength at 1500N, 10 Min	≤ 0.2 dB
Fiber Type	Ø 0.25	Cable Twist at 10 cycles, 0.3m	≤ 0.2 dB
Size	0.4 mm x 2 (ea)	Crush Strength at 5N/mm, 10 Min	≤ 0.2 dB
Outer Sheath Color	Black	Temperature $-20^{\circ}$ C $\sim$ 60°C, 6 hours	≤ 0.3 dB
Outer Sheath Material	LSZH	Certification	RoHS
Outer Sheath Dimension	4mm x 2mm	Standard Packing	1000 m (3280.84 ft)

#### Ordering Information

HIFF-09-02 i-Net Networks Horizontal Indoor Fiber Cable FTTH Singlemode  $9/125\mu$  2 Core



#### **Fiber Optic Single Loose Tube Cable**

#### **Specification**

Meets EIA/TIA-455 and EIA/TIA FOTP 82B Meets IEC- 60794 and IEC-60794-1-F5 Optical characteristics meets ISO/IEC 11801 Meets IEC 60332-1 fire safety standard

#### Description

Fiber optic cable, multi loose tube, 2 – 24 fibers General purpose LAN cable for Indoor and Outdoor Campus backbone and building riser cabling Inter/Intra-building routing

#### **Technical Characteristic**

Fiber diameter  $125 \pm 1 \mu m$ The insulated fiber diameter  $242 \pm 7 \mu m$ Fiber jacket diameter 2.1 mm (0.08") Cable outer diameter 7.3 mm (0.29") Fiber jacket tensile strength 1.3-8.9 N Fiber jacket out-of-roundness 1% or less Minimum bend radius 146 mm (5.75") Tension force (cabling) 2700 N

# 1-Jacket 2-Hydrophobous Extender 3-Fiber Optic

#### Material

Conducting material: fiber optic 9/125µ, 50/125µ, 62.5/125µ Fiber insulation: Polybutylene Terephthalate module (tube) Sheathing and waterproofing: waterproofing aramid strength yarns Module filling: filled with waterproofing thixotropic gel Outer sheathing: UVR-resistant polyethylene

Tension force (operation)	1600 N

Crushing force 440 N/cm (1117.6 N/in)

Repeated impact resistance N = 20Flexing resistance 25 cycles

 Operation temperature
  $-40^{\circ}\text{C} - +75^{\circ}\text{C} \ (-40^{\circ}\text{F} - +167^{\circ}\text{F})$  

 Storage temperature
  $-40^{\circ}\text{C} - +75^{\circ}\text{C} \ (-40^{\circ}\text{F} - +167^{\circ}\text{F})$  

 Weight of 1 km of cable
  $50 \sim 100 \text{ kg} \ (110.23 \sim 220.46 \text{ lbs})$ 

Standard bunch 2000 m (6561.6 ft)

Polymer TapeFiber Optic

#### **Ordering Information**

RSLN-50-04 i-Net Networks Riser Cable Single Loose Tube Multimode 50/125μ 4 Core Non LSZH
RSLL-50-04 i-Net Networks Riser Cable Single Loose Tube Multimode 50/125μ 4 Core LSZH
50 50—Multimode 50/125μ, 62—Multimode 62.5/125μ, 09—Singlemode 9/125μ
04 04–4Core, 06–6Core, 08–8Core, 12–12Core, 24–24Core

## Fiber Optic Multi Loose Tube Cable

#### Specification

The cable meets EIA-TIA 455 and IEC-60794 Optical characteristics meets ISO/IEC 11801 Meets IEC 60332-1 fire safety standard

#### **Description**

Fiber optic cable, multi loose tube, 24 – 288 fibers General purpose LAN cable for Indoor and Outdoor Campus backbone and building riser cabling Inter/Intra-building routing

#### Material

Conductive material: optical fiber 9/125µ, 50/125µ, 62.5/125µ Armoring and waterproofing: dielectric aramid strength yarns Outer jacket: UV-resistant Halogen Free Flame Retardant (HFFR) Central strength member: dielectric load-bearing element

Main Load-Bearing Element

#### **Technical Characteristic**

Fiber diameter  $125 \pm 1 \mu m$ Tension force (operation) 900 N The insulated fiber diameter  $242 \pm 7 \mu m$ 440 N/cm (1117.6 N/in) Crushing force Fiber jacket diameter 2.1 mm (0.08") Repeated impact resistance 300 cycles 8.8/10.9/13.9 mm (0.35/0.43/0.55") Cabling temperature -20°C - +70°C (-4°F - +158°F) Cable outer diameter Fiber jacket tensile strength 1.3-8.9 N Operation temperature -40°C - +75°C (-40°F - +167°F) -40°C - +75°C (-40°F - +167°F) Fiber jacket out-of-roundness 1% or less Storage temperature Minimum bend radius 130/145/195 mm (5.12/5.71/7.68") Weight of 1 km of cable 75~400 kg (165.34~881.84 lbs) Tension force (cabling) 1500 N Standard bunch 1000 m (3280.84 ft)

#### Ordering Information

RMLN-50-024 i-Net Networks Riser Cable Multi Loose Tube Multimode 50/125μ 24 Core Non LSZH

RMLL-50-024 i-Net Networks Riser Cable Multi Loose Tube Multimode 50/125μ 24 Core LSZH

50 50—Multimode 50/125μ, 62—Multimode 62.5/125μ, 09—Singlemode 9/125μ

024 024—24Core, 048—48Core, 096—96Core, 144—144Core, 192—192Core, 240—240Core, 288—288Core



#### **Fiber Optic Armored Single Loose Tube Cable**

#### **Specification**

Meets EIA/TIA-455 and EIA/TIA FOTP 82B Meets IEC- 60794 and IEC-60794-1-F5 Optical characteristics meets ISO/IEC 11801 Meets IEC 60332-1 fire safety standard

#### Description

Fiber optic cable, single loose tube, 2 – 24 fibers Waterproof steel armored band, General purpose LAN cable for Indoor and Outdoor Campus backbone and building riser cabling Inter/Intra-building underground cabling

# Material

Conductive material: optical fiber 9/125µ, 50/125µ, 62.5/125µ Fiber insulation: Polybutylene Terephthalate module (loose tube) Armoring and waterproofing: Water Blocking Aramid Strength Yarns Filler: Filled with Thixotropic gel protects from water corrugation Outer sheathing: UV-resistant polyethylene

Hydrophobous Extender

Armor: corrugated steel band

#### **Technical Characteristic**

Fiber diameter 125 ± 1um The insulated fiber diameter  $242 \pm 7 \mu m$ Fiber jacket diameter 2.1 mm (0.08") 11.9 mm (0.47") Cable outer diameter Fiber jacket tensile strength 1.3-8.9 N Fiber jacket out-of-roundness 1% or less Minimum bend radius 238 mm (9.38") Tension force (cabling) 2700 N Tension force (operation) 1600 N

Crushing force 800 N/cm (24384 N/ft) Repeated impact resistance N = 20

Jacket

– Fiber optic

- Film

Armored band Rip-cord

Flexing resistance 25 cycles

 Cabling temperature
  $-20^{\circ}\text{C} - +70^{\circ}\text{C} (-4^{\circ}\text{F} - +158^{\circ}\text{F})$  

 Operation temperature
  $-40^{\circ}\text{C} - +75^{\circ}\text{C} (-40^{\circ}\text{F} - +167^{\circ}\text{F})$  

 Storage temperature
  $-40^{\circ}\text{C} - +75^{\circ}\text{C} (-40^{\circ}\text{F} - +167^{\circ}\text{F})$  

 Weight of 1 km of cable
  $75 \sim 150 \text{ kg} (165.34 \sim 330.69 \text{ lbs})$ 

Standard bunch 2000 m (6561.6 ft)

#### **Ordering Information**

i-Net Networks Riser Cable Armored Single Loose Tube Multimode 50/125μ 4 Core Non LSZH
 i-Net Networks Riser Cable Armored Single Loose Tube Multimode 50/125μ 4 Core LSZH
 50—Multimode 50/125μ, 62—Multimode 62.5/125μ, 09—Singlemode 9/125μ

04—4Core, 06—6Core, 08—8Core, 12—12Core, 24—24Core

### **Fiber Optic Armored Multi Loose Tube Cable**

#### Specification

Meets EIA/TIA-455 and EIA/TIA FOTP 82B Meets IEC- 60794 and IEC-60794-1-F5 Optical characteristics meets ISO/IEC 11801 Meets IEC 60332-1 fire safety standard

#### Description

Fiber optic cable, single loose tube, 24 – 288 fibers Waterproof steel armored band, General purpose LAN cable for Indoor and Outdoor Campus backbone and building riser cabling Inter/Intra-building underground cabling

# 1 - Jacket 2 - Armored band 3 - Film 4 - Polymer tape 5 - Rip-cord 6 - Fiber optic 7 - Main load-bearing element

#### Material

Conductive material: optical fiber 9/125µ, 50/125µ, 62.5/125µ Fiber insulation: Polybutylene Terephthalate module (loose tube) Armoring and Waterproofing: Waterproofing Tape Filler: Thixotropic gel which protects from water corrugation Outer sheathing: UV-resistant polyethylene Armor: corrugated steel band Central strength member: dielectric load-bearing element

#### **Technical Characteristic**

Fiber diameter 3000 N/cm 125 ± 1um Crushing force The insulated fiber diameter N = 20 $242 \pm 7 \mu m$ Repeated impact resistance Fiber jacket diameter 2.1 mm (0.08") Flexing resistance 25 cycles 14/ 15.7/ 16.8/ 18.9/ 21.5 mm -20°C - +70°C (-4°F - +158°F) Cable outer diameter Cabling temperature Fiber jacket tensile strength 1.3-8.9 N Operation temperature -40°C - +75°C (-40°F - +167°F) -40°C - +75°C (-40°F - +167°F) Fiber jacket out-of-roundness 1% or less Storage temperature 100~600 kg (220.46~1322.75 lbs) 3000 N Weight of 1 km of cable Tension force (cabling) Tension force (operation) 1000 N Standard bunch 1000 m (3280.84 ft)

#### Ordering Information

RAMLN-50-024 i-Net Networks Riser Cable Armored Multi Loose Tube Multimode 50/125μ 24 Core Non LSZH
RAMLL-50-024 i-Net Networks Riser Cable Armored Multi Loose Tube Multimode 50/125μ 24 Core LSZH
50 50—Multimode 50/125μ, 62—Multimode 62.5/125μ, 09—Singlemode 9/125μ

024 024—24Core, 048—48Core, 096—96Core, 144—144Core, 192—192Core, 240—240Core, 288—288Core



#### **Fiber Optic Connector**

#### **Specification**

Compatible with all NTT-FC/SC standards



#### **Ordering Information**

CE-50-C i-Net Networks Fiber Optic Connector Epoxy Multimode 50/125µ SC

**50**—Multimode 50/125μ, **62**—Multimode 62.5/125μ, **09**—Singlemode 9/125μ

T T-ST, C-SC, L-LC

#### **Fiber Optic Adapter**

#### Description

- Terminated with metal stopper and screws
- Polymeric caps protect the adapters against dust
- Allows easy identification
- Singlemode adapters come with white (FC) and blue (SC) caps
- Multimode adapters come with black (FC) and beige (SC) caps
- FC, SC, ST adapters are inline and they are used for the precise centre positioning of connectors' ferrules in special sleeves
- Centre positioning in MTRJ adapters is performed using guiding pins and the ferrules are centre positioned in special sleeves

#### Material

Nickel brass, plastic Phosphor bronze centre sleeve

#### **Technical Specification**

Insertion loss: 0.3 dB

Storage temperature: -40°C to +80°C (-40°F to +176°F)
Operating temperature: -20°C to +70°C (-4°F to +158°F)

Maximum permissible humidity: 95%

#### **Ordering Information**

AS-M-TT i-Net Networks Fiber Optic Simplex Adapter Multimode ST-ST

AD-M-TT i-Net Networks Fiber Optic Duplex Adapter Multimode ST-ST

M—Multimode, S—Singlemode

TT—ST-ST, CC—SC-SC, LL—LC-LC, FF—FC-FC, MM—MTRJ-MTRJ, TC—ST-SC, CL—SC-LC, LF—LC-FC

#### **Fiber Optic Patch Panel & Splice Unit**



#### **Ordering Information**

PPFD-**EU** i-Net Networks Fiber Patch Panel Duplex Empty Universal

EU EU-Empty Universal, 2T-24Core ST, 2C-24Core SC, 2L-24Core LC, 4T-48Core ST, 4C-48Core SC, 4L-48Core LC

PPFA-C i-Net Networks Fiber Optic Adapter Panel SC for PPFD-EU

C T—ST, C—SC, L—LC, R—RJ45

STF-W-048 i-Net Networks Fiber Optic Splicing & Termination Unit Wall Mount 48 Core

**W**—Wall Mount, **U**—Underground

048 —48 Core, 096—96 Core, 192—192 Core, 288—288 Core



#### **Fiber Optic Patch Cord**

#### Description

IEC 60874-10, TIA/EIA-604-2, Telcordia GR-326-CORE Meets IEC 60332-1 fire safety standard



#### Specification

Ferrule Outer Diameter		er Diameter	1.25mm, 2.5mm (±0.0005mm), 125~125.5, 126~127				
0 1	Cord	SM	9/125µ		Ferrule	Zirconia	
	Coru	MM	50/125μ, 62.5/125μ		Spring	Stainless Steel	
		Type	ST, SC, LC, FC, MTRJ		C-ring	SK5M	
Connector	Connector	Boot Color	Yellow, Blue, Black, Green, Beige		Ring	Brass	
		Hood	0.9mm, 2.0mm, 2.4mm, 3.0mm		Crimping ring	Aluminum	
		Insertion Loss	SM: <0.3 dB, MM: <0.4 dB	Materials	Boot	Kay Flex	
Technical Charac-	Technical	Return Loss	> 45 dB		Dust cap	PE (Black, White, Yellow)	
	Charac-	End Face Radius	10 mm <r< (0.39"<r<0.98")<="" 25="" mm="" td=""><td></td><td>Coupling Device</td><td>PBT</td></r<>		Coupling Device	PBT	
	teristics	Apex Offset	< 0.002'' (50 μm)		Frame	PBT	
	Operating Temperature	-40°C to +85°C (-40°F to 185°F)		Washer	-		
	Length 1m (3.28ft), 2m (6.56ft), 3m (9.84ft), 5m (16.4ft), 10m (32.8ft)			Cable	LSZH		

#### Ordering Information

Ordering Inio	mation
PCD50P-TT-01	i-Net Networks Fiber Patch Cord Duplex Multimode 50/125µ PC ST-ST 1m
PCD62P-TT-01	i-Net Networks Fiber Patch Cord Duplex Multimode 62.5/125µ PC ST-ST 1m
PCD09P-TT-01	i-Net Networks Fiber Patch Cord Duplex Singlemode 9/125µ PC ST-ST 1m
PCD50A-TT-01	i-Net Networks Fiber Patch Cord Duplex Multimode 50/125µ APC ST-ST 1m
PCD62A-TT-01	i-Net Networks Fiber Patch Cord Duplex Multimode 62.5/125µ APC ST-ST 1m
PCD09A-TT-01	i-Net Networks Fiber Patch Cord Duplex Singlemode 9/125µ APC ST-ST 1m
π	TT-ST-ST, TC-ST-SC, TL-ST-LC, TF-ST-FC, TM-ST-MTRJ CC-SC-SC, CL-SC-LC, CF-SC-FC, CM-SC-MTRJ LL-LC-LC, LF-LC-FC, LM-LC-MTRJ FF-FC-FC, FM-FC-MTRJ MM-MTRJ-MTRJ
01	<b>01</b> —1meter, <b>02</b> —2meter, <b>03</b> —3meter, <b>05</b> —5meter, <b>10</b> —10meter

# **Fiber Optic Pigtail**

#### Description

Compliant with Telcordia, TIA/EIA/IEC Meets IEC 60332-1 fire safety standard



#### Specification

Ferrule Outer Diameter	SM	125~125.5		Ferrule	Zirconia Ceramic
	MM	126~127		Spring	Stainless Steel
	SM	9/125µ		C-ring	SK5M
Cord	MM	50/125µ, 62.5/125µ		Ring	Brass
	Type	ST, SC, LC, FC		Crimping ring	Aluminum
Technical Characteristics	Boot Color	Yellow, Black	Materials	Boot	Kay Flex, Santopren
	Insertion Loss	SM < 0.3 dB, MM < 0.4 dB		Dust cap	LD PE
	Return Loss	> 45 dB,		Coupling Device	Brass
	End Face Radius	10 mm < R < 25 mm		Frame	PBT
	Apex Offset	< 50 mm		Washer	Brass
Length	1m (3.28ft), 2m (6.56ft), 3m (9.84ft)			Cable	LSZH

#### **Ordering Information**

PTS50P- <b>T</b> -1	i-Net Networks Fiber Pigtail Simplex Multimode 50/125 $\mu$ PC ST 1m
PTS62P-T-1	i-Net Networks Fiber Pigtail Simplex Multimode 62.5/125 $\mu$ PC ST 1m
PTS09P- <b>T-1</b>	i-Net Networks Fiber Pigtail Simplex Singlemode 9/125 $\mu$ PC ST 1m
PTS50A-T-1	i-Net Networks Fiber Pigtail Simplex Multimode 50/125 $\mu$ APC ST 1m
PTS62A-T-1	i-Net Networks Fiber Pigtail Simplex Multimode 62.5/125 $\mu$ APC ST 1m
PTS09A-T-1	i-Net Networks Fiber Pigtail Simplex Singlemode 9/125 $\mu$ APC ST 1m
т	T-ST, C-SC, L-LC, F-FC, M-MTRJ
1	1—1meter, 2—2meter, 3—3meter



#### **Coaxial Cable**







Cable Type	RG6	RG11	RG59
Wave impedance	75Ω	75Ω	75Ω
Conductor diameter	1.02 mm (0.04") (18 AWG)	1.62 mm (0.06") (14 AWG)	0.81 mm (0.03") (20 AWG)
Dielectric diameter	4.57 mm (0.18")	7.11 mm (0.28")	3.66 mm (0.14")
Outer jacket thickness	0.8 mm (0.031")	1.1 mm (0.04")	0.9 mm (0.035")
Outer cable diameter	6.9 mm (0.27")	10.16 mm (0.4")	6.02 mm (0.24")
Shield	0.16 mm (0.006") 65%	0.18 mm (0.007") 65%	0.16 mm (0.006") 65%
Test frequency	up to 3 GHz	up to 3 GHz	up to 1 GHz
Voltage rating	3000 V	5000 V	2300 V
Temperature range	-20°C - +80°C (-4°F - +176°F)	-20°C - +80°C (-4°F - +176°F)	-20°C - +80°C (-4°F - +176°F)
Weight per 1000 ft (304.8 m)	14 kg (30.9 lbs)	30.2 kg (66.5 lbs)	10.7 kg (23.5 lbs)
Standard packing	1000 ft (304.8 m)	1000 ft (304.8 m)	1000 ft (304.8 m)

#### **Ordering Information**

HIRG-06-65 i-Net Networks Horizontal Indoor Coaxial Cable RG6 65% Braid

**06**—RG6, **11**—RG11, **59**—RG59

**65**—65% Braid

#### **Coaxial Plug**

#### Materials

Housing - nickel-plated zinc Center conduct - gold-plated brass Insulator - POM Rubber washer - PVC Washer - nickel-plated iron Sleeve - nickel-plated brass





HILL DAY



#### Ordering Information

PBM-S-06 i-Net Networks Coaxial Plug BNC Male Solder RG6

S—Solder, C—Crimp

#### **Coaxial Patch Panel**



# **Coaxial Adapter**







#### **Ordering Information**

PPC-BF-24 i-Net Networks Coaxial Patch Panel 24 Port Unloaded

**24**—24 Port, **48**—48 Port

PPCA-BF i-Net Networks Coaxial Patch Panel Adapter BNC Female

#### Ordering Information

AC-BS-F i-Net Networks Coaxial Adapter BNC-S Female

**BS**—BNC-S, **BT**—BNC-T

F F—Female, M—Male

#### Bal-Un (Balanced to Unbalanced) Dual G.703 $75\Omega$ -120 $\Omega$

#### BU-D-BF—i-Net Networks Bal-Un Dual G703 BNC Female

T1 (1.5Mbps) or E1 (2Mbps) up to 32Mbps Data Rate 75 $\Omega$  Dual Coaxial to 120 $\Omega$  Twisted Pair 50 $\mu$  Glod Plated Exceeds CCITT G.703 Specifications and IEEE Standards Insertion Loss <0.5 dB Return Loss <16 dB Cross Talk <60 dB Bidirectional Signal Transmission Passive device, No power required





#### **Wall Mount Cabinet**

#### **Feature**

Adjustable profile, single & double sections Reliable structure and easy wall-mounting installation Removable side panels with hinged locks Cable entry on top cover and bottom panel Top mounted fan

#### Standard

ANSI/EIA RS-310-D, DIN41494, part 1, IEC297-2, DIN41494, part 7

Height: 4U, 6U, 9U, 12U, 15U, 18U Width: 600mm Standard depth: 450mm, 550mm Customized depth: 100mm~300mm Package: Assembled/Unassembled

#### **Material**

SPCC cold rolled steel

Thickness: 19" profile-0.06" (1.5mm), others-0.05" (1.2mm)

#### **Surface Finish**

Black, Degreasing, pickling, phosphoric, powder coated



#### Package

Front Glass Door (FGD)
Quick Open Side Door (QOSD)
Two Adjustable 19" Profile (2AP)
One Top Mounted 1 Fan (CAF-200A) (only for 450mm & 550mm)
Lock with Key (CAL-SD) Ten Cage Nut (CACN-1 x 10)

#### Ordering Information

CWS-04-45 i-Net Networks Cabinet Wall Mount Black Single Section 4U 600x450mm CWD-**04**-**55** i-Net Networks Cabinet Wall Mount Black Double Section 4U 600x550mm

04 **04**-4U, **06**-6U, **09**-9U, **12**-12U, **15**-15U, **18**-18U

45 15-150mm, 20-200mm, 25-250mm, 30-300mm, 45-450mm, 55-550mm

#### **Floor Standing Cabinet**

#### **Feature**

- Easy to assemble flat pack or fully assembled
- Connected by four-corner to ensure the intensity Exquisite design with precise craftsmanship
- Toughened glass or vented front doorAdjustable feet and heavy duty castors
- Top and bottom panel for cable entry
- Removable side panel
- · High-density vented rear door

#### Standard

ANSI/EIA RS-310-D, IEC297-2, DIN41491 part 1, DIN41494

Height: 15U, 18U, 22U, 27U, 32U, 37U, 42U, 47U Width: 600mm and 800mm

Depth: 600mm, 800mm, 1000mm Package: Assembled/Unassembled

#### **Material**

Frame: Steel

Others: SPCC cold rolled steel

Thickness: Profile - 0.08" (2.0 mm), Angle - 0.06" (1.5 mm), Side Panel -0.03" (0.8 mm), others - 0.05" (1.2 mm)

#### **Loading Capacity**

Static loading: up to 400kg (15U~27U), up to 800kg (32U~47U)

#### **Surface Finish**

Black, Degreasing, pickling, phosphoric, powder coated

#### **Main Structure**

Front glass (FGD) or vented (FPMD) door Quick open side door (QOSD) Four adjustable profile (4AP) Two vertical cable manager (CAWM-V-C x 2)
Light duty castor (LDC) (15-22U), Heavy duty castor (HDC) (27-47U)
Twenty five cage nut (CACN-1 x 25)
Four top mounted fans (4F) Lock with key (CAL-SD) Adjustable stopper feet (SF)

#### **Ordering Information**

CFG-15-6060 i-Net Networks Floor Cabinet Black Front Glass Door 15U 600x600mm

CFM-15-6060 i-Net Networks Floor Cabinet Black Front Perforated Metal Door 15U 600x600mm

15 **15**—15U, **18**—18U, **22**—22U, **27**—27U, **32**—32U, **37**—37U, **42**—42U, **47**—47U

6060 6060-600x600mm, 6080-600x800mm, 601K-600x1000mm, 8080-800x800mm, 801K-800x1000mm



#### **Open Floor Cabinet**

#### Description

Open Cabinet is intended for installation of equipment which does not require full housing. It is also used in instances when equipment is placed in an air-conditioned room. Construction is based on assemble of the second construction is based on a second construction of the second construction is based on the second construction of the second bled 19" single frame, fixed by screws to the rack base. The base has openings for anchor bolts to brace the rack to the floor.

#### **Surface Finish**

Textured powder paint, light gray (RAL 7035) and black (RAL 9005)

#### **Ordering Information**

COS-27-60 i-Net Networks Cabinet Open Black Single Frame 27U COD-27-60 i-Net Networks Cabinet Open Black Double Frame 27U

27 **27**-27U, **42**-42U

60—600mm Depth, 80—800mm Depth, 1K—1000mm Depth (only for double frame open cabinets)

#### **Cabinet Accessories**



CAFS-20-1 Front Mount Fixed Shelf 200mm 1U 20-200mm, 30-300mm, 40-400mm



Construction

Vertical post Base Cross profile

CARS-45 Front & Rear Mount Fixed Shelf for 450mm -450mm,**60**-600mm, **80**-800mm, **1K**-1000mm



CABP-1 Blank Panel 1U 1-1U, 2-2U, 4-4U



CASS-45 Sliding Shelf for 450mm 45-450, 60-600, 80-800, 1K-1000



CAWM-H-CR Horizontal Wire Manager with Ring -Horizontal, V42—Vertical 42U



CARP-1 Brush Panel 1 Section 1-1 Section, 2-2 Section



CAP3-06-M Power Distribution Unit 13A 6Way IEC320 UK Plug 06—6Way, 10—10Way

M-Metal, P-Plastic



CADT-1 Digital Temperature Unit 1



CACN-1 Cage Nut



#### **Media Converter**

#### Description

The media converter complies with IEEE802.3 Ethernet Standards as well as RS232/422/485 Communication Standards and it is designed to convert interface between Fast Ethernet, Gigabit Ethernet & Communication Signals. On the Twisted Pair interfaces the media converter automatically identifies polarity.

Fast Ethernet or Gigabit Ethernet of Multi-mode and Single-mode media conversion is available at distances at 550 m/2 Km and 20/40/60/80/100/120 Km respectively.

The media converter is also available in 19" rack chassis with slide in modules. Converter is transparent to all protocols. With Link Fault Pass Though, the link status on Twisted Pair port is propagated to the remote network. The media converters are dual Fiber operates at 850nm/1300nm/1310nm/1550nm.



#### **Feature**

10/100Mbps; 10/100/1000Mbps with Full/Half duplex automatically configure in Twisted Pair port RS485 signal flow auto-recognition of speed 0~115.2 Kbps with auto negotiation RS485 support 128 nodes and RS422 support 64 nodes Compliant with RS232/422/485 Communication standards and stable transmission Compliant with IEEE 802.3 10Base-T; IEEE 802.3u 100Base-TX; IEEE 802.3z/ab 1000Base-T standards Compliant with 100Base-FX; 1000Base-SX/LX standards MDI/MDI-X Auto Negotiation
LED Indicators for POWER, FX LINK/ACT, 100, TP LINK/ACT, FDX/COL.
Supports LLR (Link Loss Return) for FX Port Supports LFP (Link Failure Pass) function Optional 19" System Chassis Slide in Modules & Wall-Mountable FCC Class A & CE approved

#### **Specification**

Wavelength

850nm, 1300nm, 1310nm & 1550nm

Fiber Cable 50/125, 62.5/125, 100/140 Multimode 8.3/125, 8.7/125, 9/125 or 10/125 Single-mode

Copper: RJ45 Serial: RS232/422/485

Optical Fiber: SC, ST, LC Power: AC UK Plug

Environment

Relative humidity: 5% to 90% Operating temperature: 0 to 60 Storage temperature: -20 to 70 Distance

Multi-mode 550m/2Km (conditions apply)
Single-mode 20Km/40Km/60Km/80Km/100Km/120Km (conditions apply)

Bandwidth & Performance

Built-in 2MB Buffer Memory
High Performance 1.4Gbps for 10/100Base-Tx & 2Gbps for 10/100/1000Base-Tx

Power Supply 9V/12V DC Adapter

110V to 240V AC 50 to 60Hz

#### **Ordering Information**

MCRU-16 i-Net Networks Media Converter Rack Unit Empty 16 Slots AC UK

MCSF-RJ45-M02C i-Net Networks Media Converter Standalone 100 Mbps Twisted Pair RJ45 Multimode 2KM SC AC UK Plug MCSG-RJ45-M55C i-Net Networks Media Converter Standalone 1000 Mbps Twisted Pair RJ45 Multimode 550m SC AC UK Plug

MCRF-RJ45-M02C i-Net Networks Media Converter Rack Module 100 Mbps Twisted Pair RJ45 Multimode 2KM SC AC UK Plug MCRG-RJ45-M55C i-Net Networks Media Converter Rack Module 1000 Mbps Twisted Pair RJ45 Multimode 550m SC AC UK Plug

**RJ45**—Twisted Pair RJ45, **2348**—RS232/485, **5062**—Multimode **RJ45** 

M55C—Multimode 550m SC (for 1000Mbps), M02C—Multimode 2KM SC (for 100Mbps), S20C—Singlemode 20KM SC, S40C—Singlemode 40KM SC, S60C—Singlemode 60KM SC, S80C—Singlemode 80KM SC, S1HC—Singlemode 100KM SC, SH2C—Singlemode 120KM SC M02C

# I-Net Networks



#### **Ethernet Switch**

#### Description

The Ethernet Switch provides 10/100Mbps Auto-Negotiation RJ45 ports. All ports support Auto MDI/MDIX function, eliminating the need for crossover cables or Uplink ports. The Switch is Plug-and-Play and can be simply plugged into a server, a hub or a switch. The Switch delivers superior performance.

#### **Feature**

- Complies with IEEE802.3, IEEE802.3u standards.
- · Supports IEEE802.3x flow control for Full Duplex mode and backpressure for half-duplex mode.
- 10/100Mbps Auto-Negotiation RJ45 ports supporting Auto-MDI/ MDIX.
- Supports Store and Forward with independent port bandwidth.
- Supports MAC address auto-learning and auto-aging.
- LED indicators for monitoring Power, Link, Activity.
- Plastic/Metal case, desktop/wall-mounting design.
- · External/Internal Power Adapter supply.





#### **Specification**

Network Media

Standards IEEE802.3 10Base-T, IEEE802.3u 100Base-TX

10Base-T: UTP category 3, 4, 5 cable (maximum 100m) EIA/TIA-568 100Ù STP (maximum 100m) 100Base-Tx: UTP category 5, 5e cable (maximum 100m) EIA/TIA-568 100Ù STP (maximum 100m)

Number of Ports 8, 24, 48

LED indicators 10/100M Link/Act and Power

Transfer Method Store-and-Forward

Switching Capacity 8 Port-1.6G; 24 Port-4.8G and 48 Port-9.6G

MAC Address 4K (8 Port), 8K (24 and 48 Ports)

MAC Address Learning Automatic learning, Automatic Update

Frame Filtering and Forward Rate 10Mbps: 14880pps, 100Mbps: 148800pps

Dimensions (W×D×H) 180×104×30mm (8 Port), 440×205×44mm (24 and 48 ports)

> Operating Temperature: 0 C~40 C (32 F~104 F) Storage Temperature: -40 C~70 C (-40 F~158 F)
> Operating Humidity: 10%~90% non-condensing

Storage humidity: 5%~90% non-condensing

Power 180-260V AC 50-60Hz Input

Mounting 8 Port — Table Top or Wall Mount; 24 and 48 Ports — 19" Rack Mount

#### **Ordering Information**

Environment

ES-F08-000	i-Net Networks Ethernet Switch 10/100 Mbps 8 Port Desktop 220/110V DC Adapter UK
ES-F24-000	i-Net Networks Ethernet Switch 10/100 Mbps 24 Port 19" Rack Mount 220/110V AC UK
ES-F48-000	i-Net Networks Ethernet Switch 10/100 Mbps 48 Port 19" Rack Mount 220/110V AC UK

