DATA CENTER SOLUTIONS

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Litech ®

DATA CENTER SOLUTIONS

LITECH provides a complete line of networking solutions for covering nearly every application for a new and existing data centre designs.

LITECH racking system provides effective management to consolidate all network equipments. Racks equipped with metered PDU and Environmental Monitoring System (EMS) offers a cost effective and efficient means to maintain accurate real-time views of voltage, current and power consumption. Other monitoring functions include temperature, humidity, smog and water logging and cabinet door sensor.
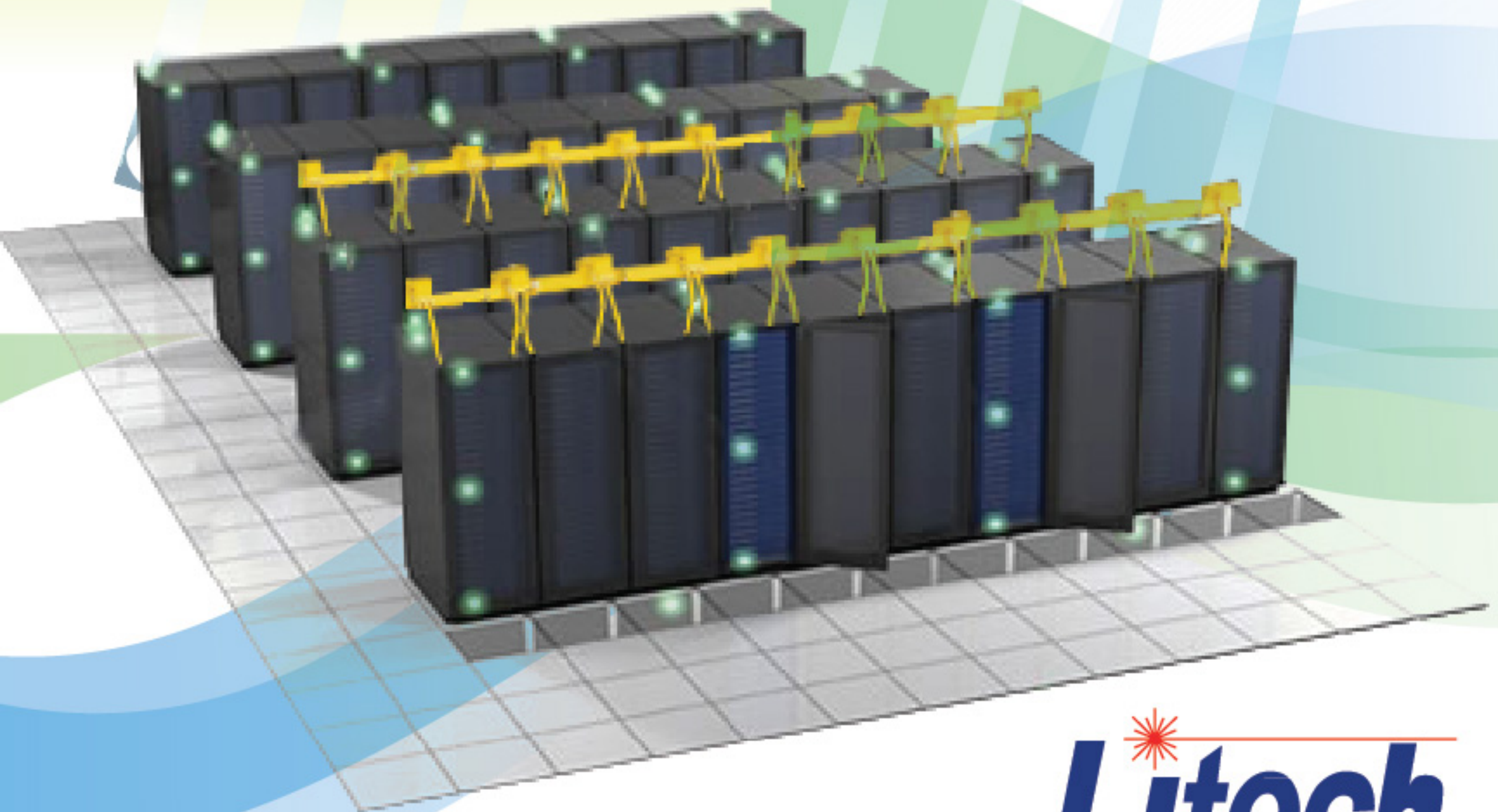
- Data Center Rack
- Cable Management Rack
- Environmental Management System
- Fiber Optic Solutions
- Cat5e & Cat 6 Solutions

Litech ®

Data Center Rack

Litech®

Litech® manufactures wide range of racks, cabinets, and enclosures to suit all telecommunication and data network equipment and cabling's requirement. With inhouse CAD/CAM design and CNC manufacturing facilities, Litech® has the ability to customize cabinets, racks, and panels with superior design and quality to address different and specified requirement for network installations. Litech® free standing equipment rack are design with high quality finishing and appearance to suit modern office environment as well as data centers.

Features

- Standard 19"/21"/23" mounting holes
- Various height, depth and width for different applications
- Adjustable mounting channels for different equipment depth mounting
- Lift off side panel with slam latches for easy removal and close of side panel
- 180° swing door for wider opening and easy access
- Vented roof & honey comb proforated door for better heat dissipatient
- High quality oven baked epoxy powder coated

Part Number

LTR☐ - ☐☐ - ☐☐ - 42B

Rack Type

A	C
B	D

Mounding Standard

01 - 19"
02 - 21"
03 - 23"

Length x Width

6060 - 600x600mm
6070 - 600x700mm
6080 - 600x800mm
6090 - 600x900mm

Height with 42U

Door Type

M - Metal
MP - Metal Perforated
MC - Metal Curve Perforated
P - Perspex
T - Tempered Glass
O - No Door

* Other customized dimensions are available.

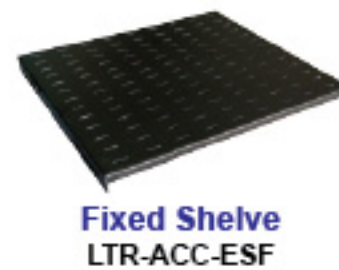LTRA   LTRB   LTRC   LTRD

Litech®

Cable Management Rack

Litech® sturdy and versatile cable management rack is design to be used in modern day data centers and equipment rooms where high capasity of cable terminations and jumpering are required. The cabinet is fitted with front patchcord rounting channels for proper patch cables routing. The channels are designed with swing covers to protect and organize the patch cables, giving neat and presentable appearance

Part Number	Description		
CMR-XY-8080-42B	Close Cable Management Rack 42U, 800x800mm		
OMR-01-2040-42B	Open Cable Management Rack 42U, 800x400mm		
OMR-ACC-CG20-B	Side Cable Management Guide For OMR Rack - 200mm width		
X - Door Type	M - Metal	MP - Metal Perforated	T - Tempered Glass
	P - Perspex	MC - Metal Curve Perforated	O - No Door
Y - Mounting Standard	01 - 19"	02 - 21"	03 - 23"

* Other customized dimensions are available.

Accessories

Cable Management Guide
LTSS-MG-01P

Blank Panel
LTR-ACC-BP

Fixed Shelve
LTR-ACC-ESF

Sliding Shelve
LTR-ACC-ESP

Cantilever Shelve
LTR-ACC-CS

Ventilation Fan
LTR-CSM-FAN-AC/DC

Keyboard Tray
LTR-ACC-KBT

Power Points Strip
LTR-ACC-PP

230V AC/48V DC Fan Tray
LTR-ACC-FTRY

Caged Nut
LTR-CSM-CNUT-M6

Adjustable Feet
LTR-CSM-ADJ

Castor Wheel
LTR-CSM-CAST

19" Rack Panel Power Distribution Unit
LTR-ACC-PDU

PDU Interface

IEC320 C13	IEC320 C19	NEMA 5-15R	AS/NZS 3112	GB1002	BS1363(90°)	BS1363(45°)	GB2009.3	DIN49440	SR 107-2-D1

Opti-DUCT™
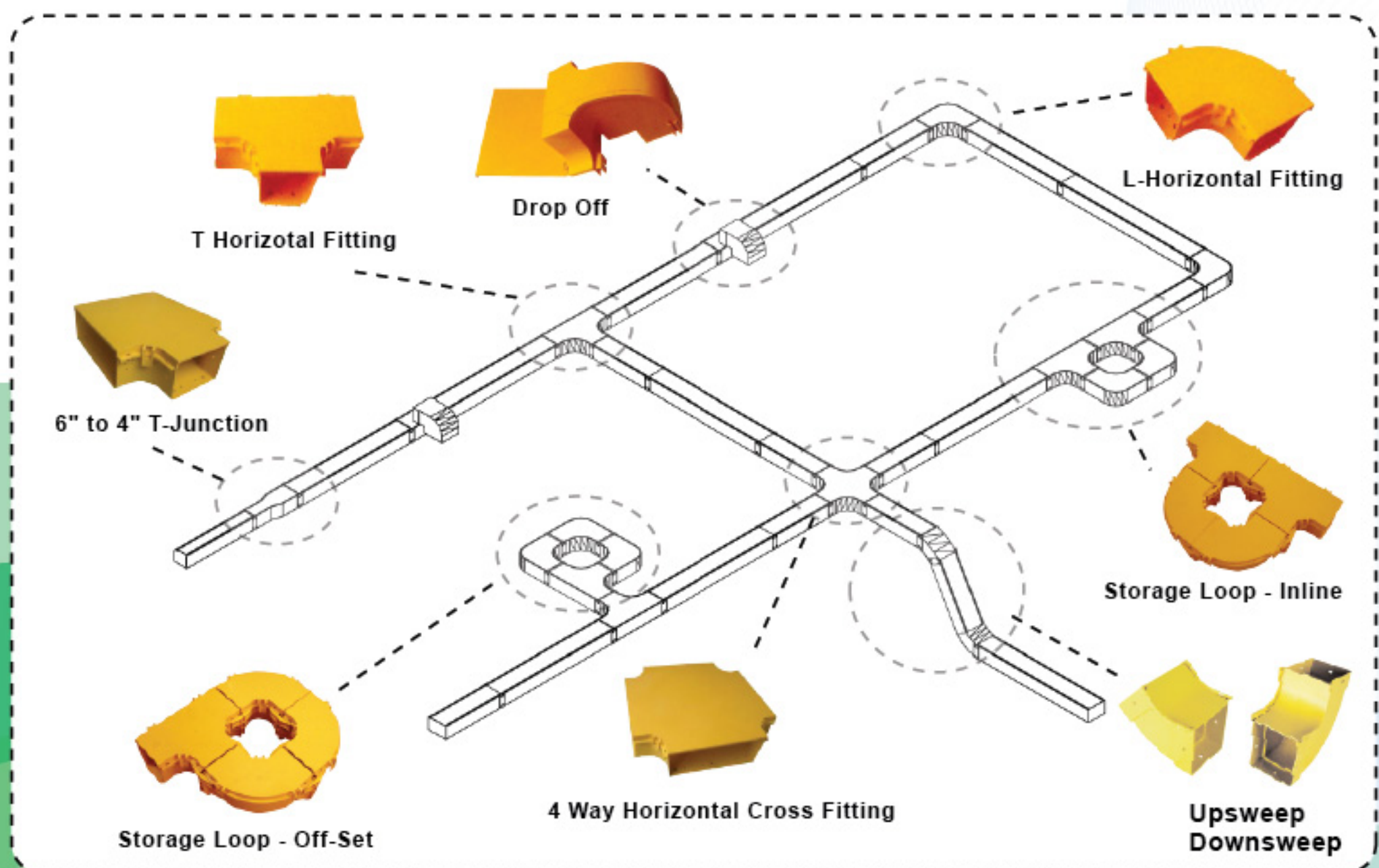## Cable Management System

Litech®

Litech® Opti-**DUCT** cable management system features innovative solutions for fiber optic cable and patchcords cabling between optical distribution frames and equipment racks in data centers equipmenet rooms. Opti-Duct systems features a snap-fit and modular systems to provide quick installation, easy access, and flexibility for moves, adds, changes of fiber optic cabling.
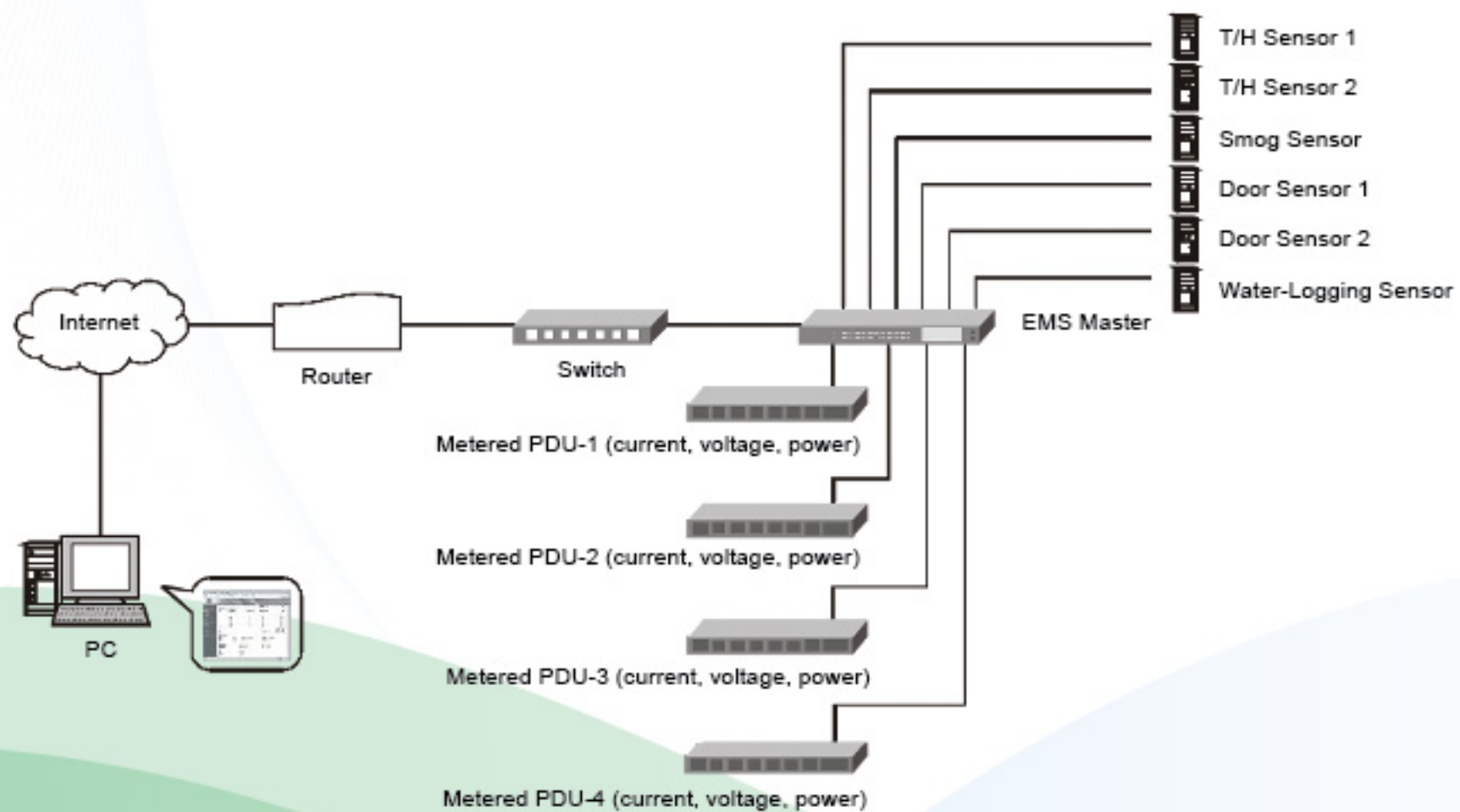
Features

- Easy installation
- All component ensure minimal bending radius of fiber
- Complete range of components available such as tee, elbows, junctions, adapters & etc
- All components are comes with cover for additional cable protection
- Snap-on features provides easy access for future cabling revision
- Complete range of fittings and brackets provide flexible for installation on ladder, equipment rack, walls or ceiling.
- Flame-retardant material (UL94-0)

System Overview

T Horizotal Fitting

Drop Off

L-Horizontal Fitting

6" to 4" T-Junction

Storage Loop - Inline

Storage Loop - Off-Set

4 Way Horizontal Cross Fitting

Upsweep
Downsweep

EMS
Environmental Management System

Litech® Environment Monitoring System - EMS is an intelligent remote monitoring system that combines the software technique of embedded system whole solution, long-distance monitoring technique based on SNMP, network node technique of sensors, power distribution technique and modularized structure technique and other advanced techniques to timely monitor the micro environment in one or several cabinets

Specification

- Composition of EMS: master, slave, HUB and Metered PDU.
- Technical: remote monitoring system center on one cabinet.
- Cabinet unit: one cabinet as a unit.
- Basic configuration in a cabinet: Maximum 4 Metered PDU, 2 T/H sensor, 2 door sensor, 1 smog sensor and 1 water-logging sensor.
- Micro environment of cabinet: input voltage, load current and power consumption of Metered PDU; temperature, humidity, door, smog and water-logging state in cabinet.
- Main applications: EMS can be widely used to data centers, telecom, finance, electric power, network system, information processing and other fields for remote monitoring.
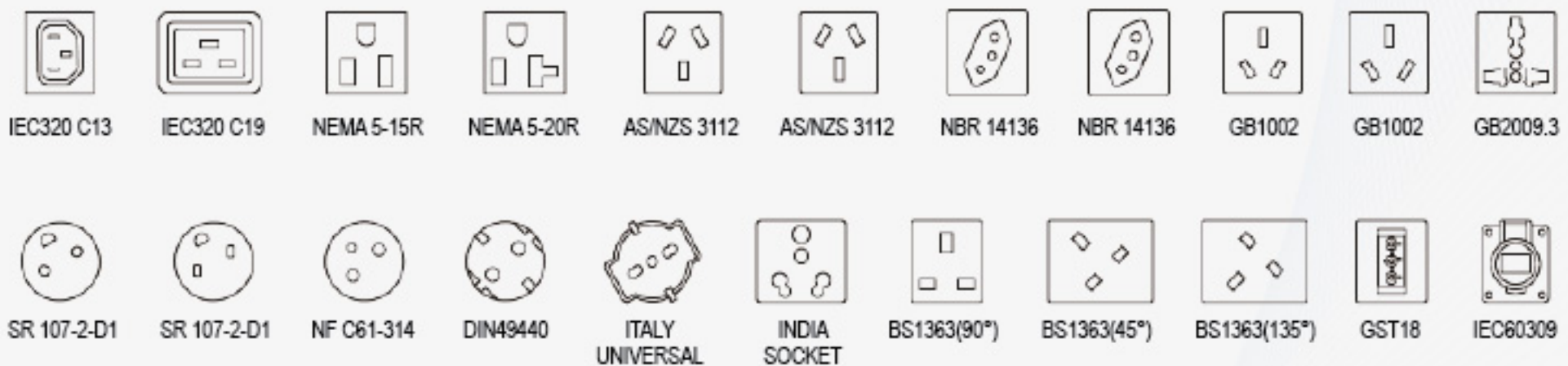
EMS

Environmental Management System

Features

1. Able to monitor via internet the input voltage, load current and power consumption of all the Meter PDU in one or several cabinets; and temperature/humidity, smog, door and water-logging states around the cabinets.
2. Daisy-chain: Trough HUB, one EMS master can daisy-chain 11 EMS slaves at most.
3. When overloaded, limited range exceeded or some other abnormal situation appears, EMS will send alarm signal.
4. Alarm information can be saved and retrieved from log record.
5. Able to classify and set user access. User can manage one or several cabinets according to the access granted
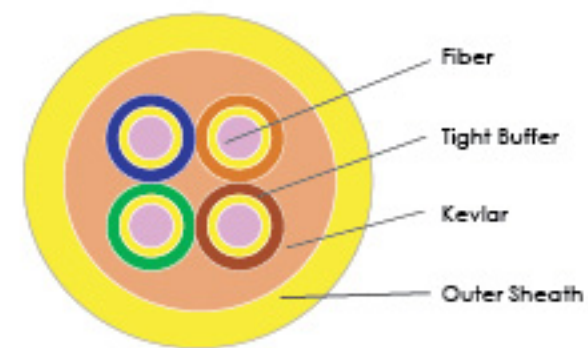
PDU Interface

IEC320 C13	IEC320 C19	NEMA 5-15R	NEMA 5-20R	AS/NZS 3112	AS/NZS 3112	NBR 14136	NBR 14136	GB1002	GB1002	GB2009.3

SR 107-2-D1	SR 107-2-D1	NF C61-314	DIN49440	ITALY UNIVERSAL	INDIA SOCKET	BS1363(90°)	BS1363(45°)	BS1363(135°)	GST18	IEC60309

Metered PDU Ranges

PDU Series

LTR-ACC-MPD-005

LTR-ACC-MPD-006

LTR-ACC-MPD-007

LTR-ACC-MPD-009

LTR-ACC-MPD-010

LTR-ACC-MPD-011

Litech®

Indoor Distribution Cable

Litech® offers full range of fiber optic cables for different applications and environments: singlemode and multimode, indoor and outdoor.

Structure and Material Specification		
Tight Buffered	Diameter	0.9mm
Armoured Layer	Material	KEVLAR
Sheath	Material	PVC
	Thickness	1.0mm
Mechanical / Electrical / Environment Characteristics		
Tensile	Short Term	600N
	Long Term	450N
Crush	200N10cm	
Bending Radius	Installing	30* Cable Dia
	Installed	≥ 10* Cable Dia
Other Mechanical Characteristics	Correspond to IEC Publication	
Insulating Resistance of Sheath	≥ 2000M after 24hs water immersion	
Water Penetration	Correspond to IEC 794-1-F5	
Temperature	-40~+70°C Additional dispersion 0.05db/km	

Fiber
Tight Buffer
Kevlar
Outer Sheath

Part Number	Fiber Count
LTOC-CB-XX05-04	4
LTOC-CB-XX05-06	6
LTOC-CB-XX05-08	8
LTOC-CB-XX05-10	10
LTOC-CB-XX05-12	12

* XX - Type of Fiber -
    SM : Singlemode
    MM : Multimode 62.5µm
    MF : Multimode 50µm
    OM : OM3 Multimode 50µm

Fiber Optic Patchcords

Litech® patchcords are made with quality manufacturing technologies with low attenuation and low back reflection. All of Litech® patchcords gone through testing in strict accordance with the international standards.

Part Number

LTOC - [ ][ ] - [ ][ ][ ] - [ ]

1st Connector
2nd Connector
Custom Length

Type of Cable
01 : 250um   04 : Duplex
02 : 900um   05 : Distribution
03 : Simplex 06 : Breakout

Type of Fiber
SM : Singlemode
MM : Multimode 62.5µm
MF : Multimode 50µm
OM : OM3

Connector Type

D4 : D4	SA : SC/APC	MR : MTRJ
DI : DIN	FD : FDDI	SM : SMA
FC : FC	LC : LC	E2 : E2000
FA : FC/APC	LA : LC/APC	EA : E2000/APC
SC : SC	ST : ST	MU : MU

Fiber Optic Connectors and Adapters

| SC | E-2000 | FC | ST | LC | MTRJ | MU |

Part Number

| Connector | SM : Singlemode
MM : Multimode | 01 : 0.9mm
02 : 2.0mm
03 : 3.0mm |

LTOC - CON - ▢ - ▢ - ▢

Connectors Interface Type

Adapter

LTOC - ADP - ▢▢ - ▢ - ▢▢

SX : Simplex
DX : Duplex

C : Ceramic
B : Bronze

D : D Flange
S : Square Flange
C : SC Foot Print

Connectors Interface Type

D4	: D4
DI	: DIN
FC	: FC
FA	: FC/APC
SC	: SC
SA	: SC/APC
FD	: FDDI
LC	: LC
LA	: LC/APC
ST	: ST
MR	: MTRJ
SM	: SMA
E2	: E2000
EA	: E2000/APC
MU	: MU

Fiber Optic Converters

Litech® offers wide range of fiber media converters for conversion between fiber to twisted pair and vice versa.

Part Number	Description
LTCV-10/100M-SC02	10/100 Base-TX to Fiber Converter, SC, MM-2km
LTCV-10/100S-SC25	10/100 Base-TX to Fiber Converter, SC, SM-25km
LTCV-10/100S-SC40	10/100 Base-TX to Fiber Converter, SC, SM-40km
LTCV-10/100/1000M-SC.22	10/100/1000 Base-TX to Fiber Converter, SC, MM-220m
LTCV-10/100/1000S-SC20	10/100/1000 Base-TX to Fiber Converter, SC, SM-20km
LTCV-SMMM-SC20	100 Base-FX SC MM(2km) to SM(20km) Converter, SC
LTCV-FOM-4E1	Fiber Optic Multiplexer, 4E1

Multiplexer

Singlemode FIber to Ethernet Converter

Multimode FIber to Ethernet Converter

Multimode to Singlemode Converter

Fiber Management System

Litech® design and manufacture full range of fiber management system, for small fiber count fiber panels in customer premises to large capacity fiber management racks in data centers .

Part Number	Description
LTOC-RFPP-12-B	RFPP Rack Mount Fiber Dist Panel 12 Core
LTOC-RFPP-24-B	RFPP Rack Mount Fiber Dist Panel 24 Core

* Other fiber count management panels are available.

Data Cables

Litech® offer wide range of premium data cables for all communication needs. Litech® cables are make comply with TIA/EIA 568A & ISO/IEC 11801 standards which provide matched performance for Cat5E and Cat6.
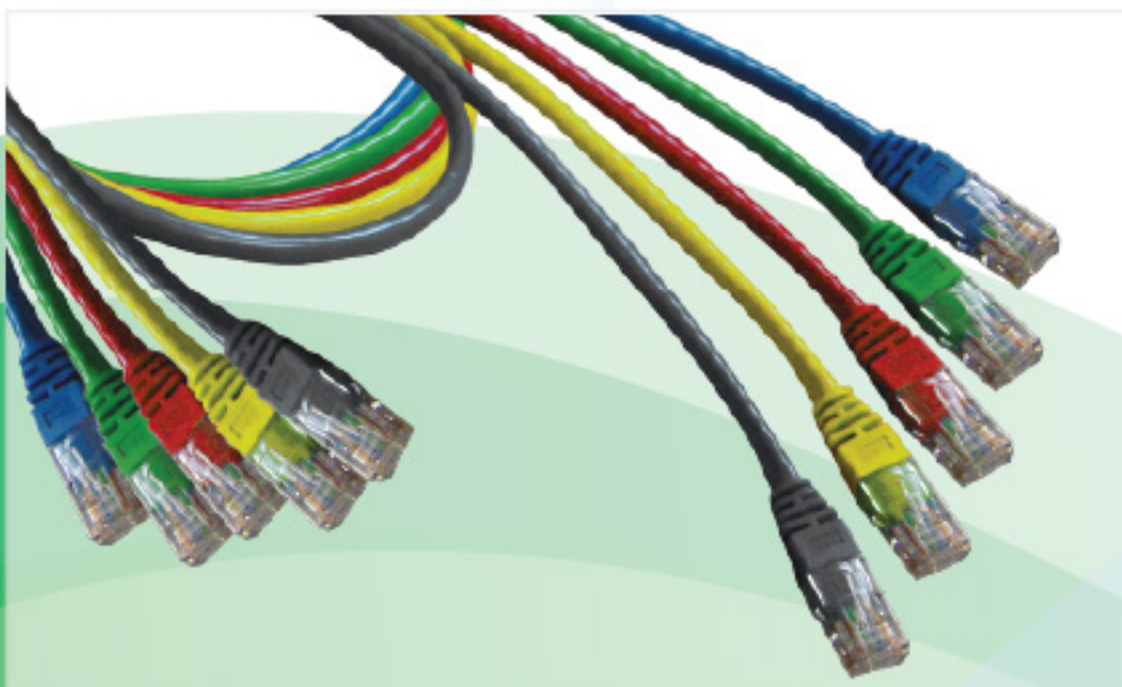
Specification

- UL verified to TIA/EIA 568A & ISO/IEC 11801
- Conductor : Solid or Stranded Copper
- Insulation : Colour-coded PE
- Jacket : PVC or LSOH
- Flammability Grade : CMX, CM, MP, CMR, MPR
- Rated Temperature : 60°C
- Reelex pull out box packing available

Part Number	Description
LTSS-CU5E-25	UTP Category 5E - 25 pair
LTSS-CU5E-04	UTP Category 5E - 4 pair
LTSS-FT5E-04	FTP Category 5E - 4 Pair
LTSS-ST5E-04	SFTP Category 5E - 4 Pair
LTSS-CUC6-04	UTP Category 6 - 4 pair
LTSS-FTC6-04	FTP Category 6 - 4 Pair
LTSS-STC6-04	SFTP Category 6 - 4 Pair

RJ45 Patchcords

Litech® RJ45 Patchcords provide optimum performance in interfacing equipment, maintaining the data rates and signal   integrity of today's high speed networks. All patchcord are made with quality RJ45 Plug, fully moulded boots for excellent strain relief. Litech® Modular Plug are designed to accommodate solid or standards cables. These high performance plugs are coated with gold plating and exceed TIA/EIA performance requirements.

Part Number	Description
LTSS-PC5E-UXX-YY	UTP Cat 5E - Patchcord
LTSS-PC5E-FXX-YY	FTP Cat 5E- Patchcord
LTSS-PCC6-UXX-YY	UTP Cat 6 - Patchcord
LTSS-PCC6-FXX-YY	FTP Cat 6 - Patchcord
XX - Colour Boots	White (W1), Grey (G2), Red (R3), Yellow (Y4), Green (E5), Blue (B6), Black (K7)
YY - Cable Length	0.5m (05), 1.0m (10), 1.5m(15), 2.0m (20), 3.0m (30), 4.0m (40)

RJ45 Patch Panels

Litech® offers complete range of patch panels to suit unshielded and shielded cable applications.
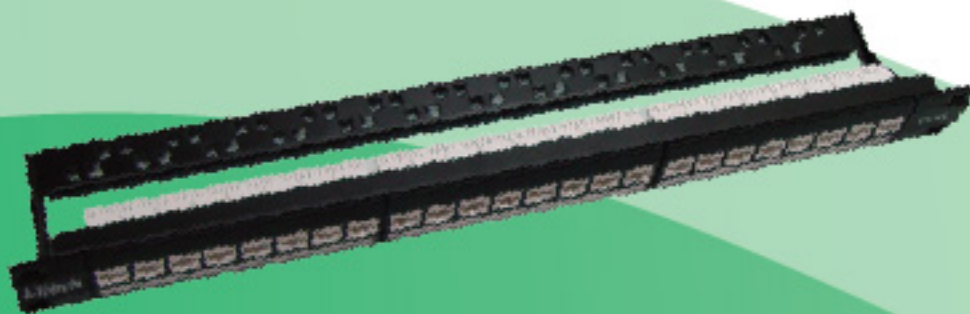
Patch Panel (Unshielded)

Patch Panel (Shielded)

Specification

- Dielectric Strength : 1kV RMS at 60Hz for 1 minute
- Current Rating : 1.5Amp maximum
- Insulation Resistance : 200MΩ minimum
- Contact Resistance : 1mΩ per contact
- Durability : 200 cycles
- Temperature Range : -40°C to +70°C
- Transmission Performance : exceeds ISO/IEC11801 Class E & AS/NZs 3080:2003 Class E

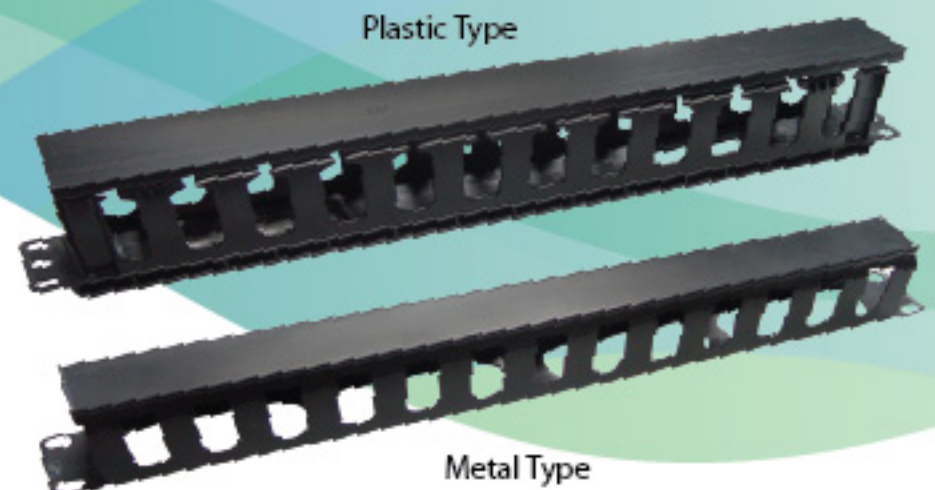| Part Number	Description
LTSS-PP5E-U24-B	Cat 5E 24 Port UTP Patch Panel - Unshielded
LTSS-PP5E-U48-B	Cat 5E 48 Port UTP Patch Panel - Unshielded
LTSS-PP5E-S24	Cat 5E 24 Port UTP Patch Panel - Shielded
LTSS-PPC6-U24-B	Cat 6 24 Port UTP Patch Panel - Unshielded
LTSS-PPC6-U48-B	Cat 6 48 Port UTP Patch Panel - Unshielded
LTSS-PPC6-S24	Cat 6 24 Port UTP Patch Panel - Shielded

Inline Patch Panel

Part Number	Description
LTSS-IP5E-24	Cat 5e 24 Port UTP Inline Patch Panel
LTSS-IPC6-24	Cat 6 24 Port UTP Inline Patch Panel

Horizontal Cable Management Guide

Part Number	Description
LTSS-MG-01P	Cable Management Guide 1U (Plastic Type)
LTSS-MG-01M	Cable Management Guide 1U (Metal Type)
LTSS-MG-02M	Cable Management Guide 2U (Metal Type)

Plastic Type

Metal Type

TOTAL TELECOMMUNICATION & NETWORKING SOLUTIONS