AMPTRAC CONNECTIVITY MANAGEMENT SYSTEM

Chapter Summary

- Tyco Electronics features a comprehensive line of hardware and software to turn cabling systems and their connected devices into intelligent networks

6

AMPTRAC CONNECTIVITY MANAGEMENT SYSTEM

The requirements of today's rapidly growing and changing infrastructures are no longer satisfied by traditional IT infrastructure management but need intelligent, real-time management. An Intelligent Infrastructure Management System (IIMS) is critical to providing accurate cable and network management information into the IT Infrastructure Library (ITIL).

The AMPTRAC Connectivity Management System turns cabling systems and their connected devices into intelligent networks by reducing costly and time-consuming manual cable management. With this system, you can track and document all moves, adds and changes to your network from a centralized location as they occur. This fully automated system optimizes asset utilization, maintains accurate documentation and helps prevent costly errors.

The AMPTRAC Connectivity Management System's easy-to-implement hardware coupled with iTRACS IM cutting-edge software can be integrated into new or existing network. By allowing you to proactively respond to any changes in connectivity through customizable alerts or alarms, the iTRACS software optimizes your network monitoring and security. AMPTRAC hardware when used in conjunction with iTRACS software provides the missing link that integrates network management and physical layer management — revolutionizing the way networks are controlled and documented.

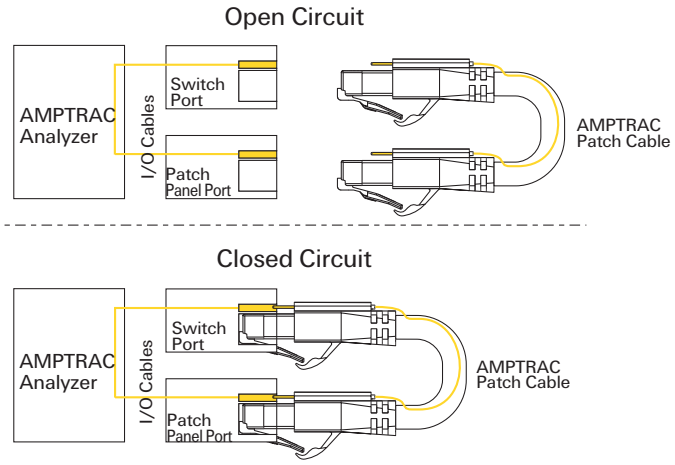
This one-of-a-kind infrastructure management system automatically generates a complete physical topology of your network at the Telecommunications Room/Data Center, while helping you manage and trouble shoot the network remotely.

System Benefits

- Reduces downtime and response time
- Integrates network and physical layer management
- Helps to increase productivity
- Reduces operating costs
- Improves port and asset utilization
- Provides accurate and timely information
- Improves service levels
- Provides alerts and alarms for all changes relating to devices and their connectivity
- Provides work order control module with auto-provisioning
- Over 60 detailed reports available
- Audit trail based on historical log file

System Features

- Simplified installation and design with stackable, configurable Analyzer
- Complete product line support
  - XG Cat 6A Shielded
  - Cat 6 Unshielded
  - Fiber (MT-RJ, SC, LC)
  - MPO (fiber) and MRJ 21 (copper)
- Analyzer LCD displays work order and circuit trace information
- Analyzer provides good and bad audible tone alerts
- Support for non-English languages

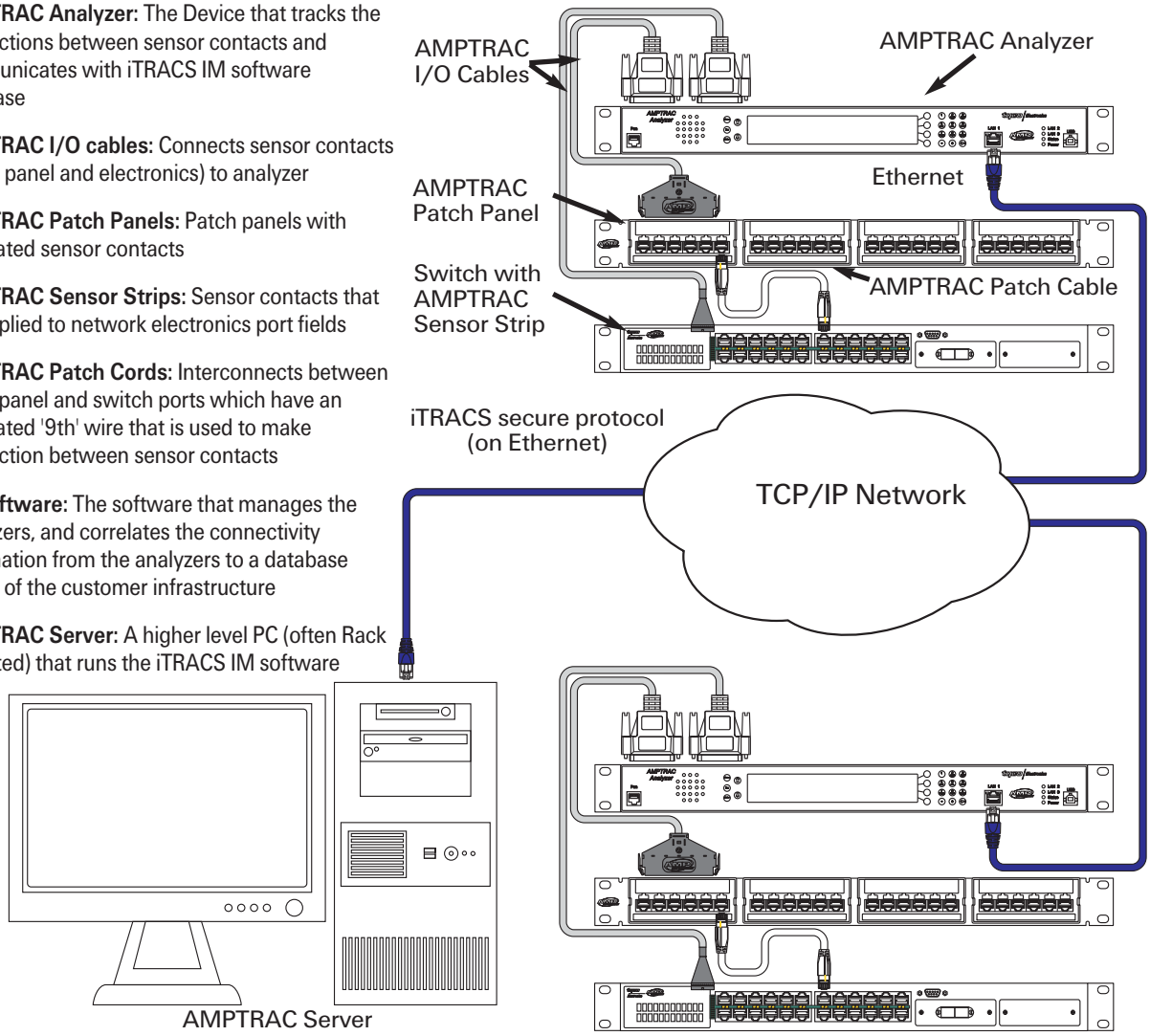


AMPTRAC Basic Operating Principle

- 9th wire technology in patch cord establishes open and closed circuit which can be monitored
- Analyzer monitors open/closed circuit and tracks connectivity
- Analyzer sends data to iTRACS IM software database
- iTRACS IM software sends Work Order and circuit info to AMPTRAC Analyzer

AMPTRAC System and Components

- **AMPTRAC Analyzer:** The Device that tracks the connections between sensor contacts and communicates with iTRACS IM software database
- **AMPTRAC I/O cables:** Connects sensor contacts (patch panel and electronics) to analyzer
- **AMPTRAC Patch Panels:** Patch panels with integrated sensor contacts
- **AMPTRAC Sensor Strips:** Sensor contacts that are applied to network electronics port fields
- **AMPTRAC Patch Cords:** Interconnects between patch panel and switch ports which have an integrated '9th' wire that is used to make connection between sensor contacts
- **IM Software:** The software that manages the Analyzers, and correlates the connectivity information from the analyzers to a database model of the customer infrastructure
- **AMPTRAC Server:** A higher level PC (often Rack mounted) that runs the iTRACS IM software



Front

Back

The AMPTRAC Connectivity Management System Analyzer discovers connects/disconnects and communicates the port ID information in real-time to the AMPTRAC database software over a TCP-IP connection. When a patch cord is inserted or removed from a port, the AMPTRAC sensory circuit immediately notifies the database software to update and document the change in connectivity. This provides network administrators responsible for small to enterprise wide multi-site networks, with vital time saving up to-the minute information about the status of their network from the hardware layer up. Any change in connectivity can be checked and authorization verified, and if appropriate, action taken if the action is unauthorized.

Description	Ports Monitored	Part Number
Analyzer, US Power Cord with IM Software and 1 Year Service Level Agreement	336	3-1591306-1
	168	4-1591306-1
Extended 3-Year Analyzer Warranty		9-1591306-0

Product Facts

- Universal analyzer design
  - Analyzer can be configured as a master or slave
  - Any unit can directly communicate to database server or through another analyzer
  - Virtually unlimited in number of ports/drops which can be monitored
- Highly flexible design and implementation allowing for use in office buildings, data centers and remote/branch offices
- Analyzer sold with license to iTRACS IM software (see pages 244-245 for description of software)
- Available in 336-port and 168-port versions
  - Both 1U – rack space
- Positive, keyed and reliable DB25 connection for I/O cables
- Shallow depth at 6.25" (160 mm)
- Suitable for shelve or 19" rack or cabinet mounting
- Large 4 line LCD display providing interactive communications with the database
- Supports connection of PDA, electronic tablet or computer to analyzer via Ethernet port
- Three 10/100BASE-Tx Ethernet ports provided (1 in front, 2 in rear) to provide connection to LAN and server as well as allow analyzer to communicate via another analyzer
- Use of latest and current circuitry design
- Little heat generation – no concerns over heat management in rack or cabinet

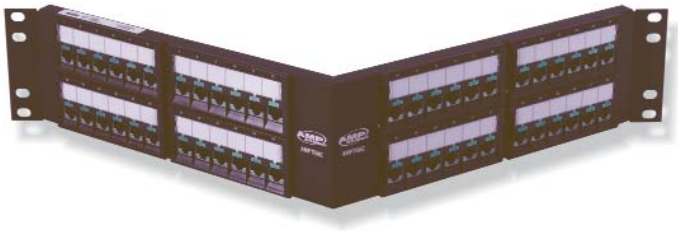
Enhancements

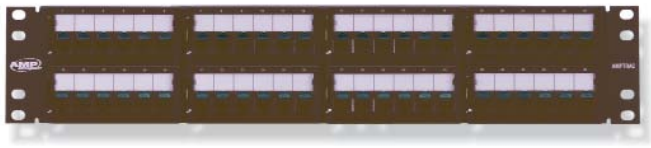
- AMPTRAC Analyzer provides Work Order information on the LCD screen
- Provides a "good or bad" tone from Analyzer based on Work Order information
- Version available to support character based language

Note: A complete channel connection to a work area outlet passes through two monitored ports, the network switch and the patch panel. Therefore, each active channel monitored requires two Analyzer ports.

Twisted Pair Patch Panels

A


B


C


D

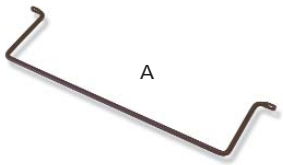

Product Facts

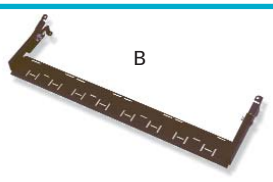
- Incorporates integrated solid contacts for enhanced protection, appearance, and reliability
- I/O cable connection made via 110 IDC punch down in the rear of patch panel, minimizing pre-planning and allowing for cables to be cut to length (1435844-X) or with 110 plug and play cable assembly (1933152-Y) (see page 238)
- Cost-effective solution for AMPTRAC Connectivity Management System ready solution - install AMPTRAC patch panels now and analyzer, I/O Cables, and software later
- Available in straight versions as well as angled versions for improved cable and space management
- Uses AMP NETCONNECT high-performance AMP-TWIST shielded 6A and SL Series Cat 6 UTP Modular Jacks
- AMP-TWIST shielded 6A Modular Jack Meets or exceeds the channel specifications of ANSI/TIA-568-B.2-10 Category 6A and Amendment 1 to ISO/IED 11801:2002 Class E_A up to 500MHz when used as a component in a properly installed AMP NETCONNECT XG F/UTP channel.
- AMP-TWIST shielded 6A Modular Jack meets or exceeds all requirements for IEEE 802.3an 10 Gigabit Ethernet
- XG Category 6A and 6 Patch Panels come unloaded with Modular Jacks bagged separately for field termination with SL Series Modular Jack Termination Tool P/N: 172150 (see Chapter 1.7)
- SL Series Multimedia Patch Panels come unloaded and accept SL Series Jacks for custom configurations

Description	Type		Height Rack Units (inches)	Figure	Part Number
XG Cat 6A (Shielded)	Straight	24-Port	1U (1.75")	A	1933331-1
		48-Port	2U (3.50")	–	1933332-1
	Angled	24-Port	1U (1.75")	–	1933333-1
		48-Port	2U (3.50")	B	1933334-1
Category 6 (Unshielded)	Straight	24-Port	1U (1.75")	–	1933327-1
		48-Port	2U (3.50")	C	1933328-1
	Angled	24-Port	1U (1.75")	–	1933329-1
		48-Port	2U (3.50")	–	1933330-1
SL Series Multimedia* (without jacks)	Straight	24-Port	1U (1.75")	–	1933323-1
		48-Port	2U (3.50")	–	1933324-1
	Angled	24-Port	1U (1.75")	D	1933325-1
		48-Port	2U (3.50")	–	1933326-1

Note: Previous versions of AMPTRAC SL Patch Panels require I/O cable 1499656-X instead of New version 1933152-X.
*SL Series multimedia panels do not accept dust-covered jacks

Cable Management Bar

A


B


Description			Figure	Part Number
Rear Cable Management Bar	For mounting to Rack	1 per 24-Port	A	557548-1
Cable Management Bar	For mounting to Patch Panel	24-Port	B	1933425-1

MRJ21 Patch Panels

Product Facts

- High-performance copper cabling solution
- High-density, small form factor connectivity
- Factory terminated and tested
- Modular, pluggable design
- 4-Pair MRJ21 Patch Panels support applications which use four or fewer pairs including 10BASE-T, 100BASE-T and 1000BASE-T
- 2-Pair MRJ21 Patch Panels support applications which use two or fewer pairs including 10BASE-T, and 100BASE-T
- Utilizes HD22 interface for AMPTRAC I/O cable (1499507-X) (see page 238)

Description		Applications	Figure	MRJ21 Connectors	Part Number
Straight Patch Panel	24-Port	4-Pair (10/100/1000BASE-T)	–	4	1777029-2
	48-Port	2-Pair (10/100BASE-T)	–	4	1777042-1
		4-Pair (10/100/1000BASE-T)	A	8	1777041-1
Angled Patch Panel	48-Port	4-Pair (10/100/1000BASE-T)	B	8	1777053-1

Patch Panel Retrofit Kits

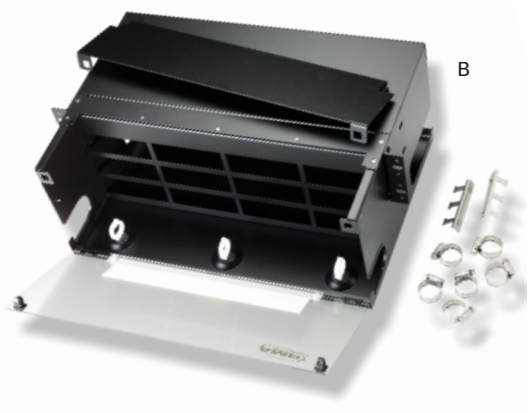
Product Facts

- Kits are designed to retrofit the AMPTRAC Connectivity Management System to existing installations of AMP NETCONNECT SL Series standard unshielded, 110Connect patch panels, or angled and standard MRJ21 patch panels
- SL Series and 110Connect kits contain material to retrofit 24 ports; two kits are required for a 48-port patch panel
- MRJ21 kits contain materials to retrofit 24- or 48-port patch panels as listed

For Use With	Fitted Ports	I/O Interface	Figure	Part Number
110Connect (Cat 5 or 5e) Straight Patch Panels	24	2.0 mm AMPMODU	–	1499639-1
SL Series (Cat 5e or 6) Straight Patch Panels	24	2.0 mm AMPMODU	A	1499640-1
MRJ21 Angled Patch Panels	48	HD22	B	1479853-1
MRJ21 Straight Patch Panels	48	HD22	–	1479951-1
	24	HD22	–	1479894-1

Optical Fiber Patch Panels and Accessories


A

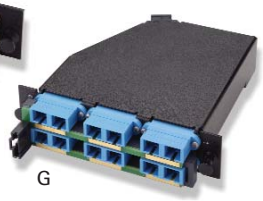

B


C


D


E


F


G

Product Facts

- Available for MT-RJ, LC Duplex and SC Duplex systems
- Available in 62.5 µm, XG (850 nm LO 50 µm) Multimode and Single-mode
- Support for field termination with interface module or preterminated use with MPO cassettes
- AMPTRAC MT-RJ and LC Duplex systems use modified fiber enclosures listed below. MT-RJ and Duplex LC AMPTRAC Interface Modules are sold separately (see below)
- AMPTRAC Duplex SC Adapter Plates and MPO Cassettes (Figures F and G) use standard AMP NETCONNECT Enclosures in Chapters 2.5 and 2.6

MT-RJ and Duplex LC

Description	I/O Interface	Type	Capacity	Fiber Type	Rack Units	Figure	Part Number
AMPTRAC MT-RJ and Duplex LC Patch Panels		Drawer	4 Interface Modules or MPO Cassettes 24-Port (48-Fiber) Modules and Cassettes sold separately	–	1U	A	1933443-1
		Enclosure	12 Interface Modules or MPO Cassettes 72-port (144-Fiber) Modules and Cassettes sold separately	–	4U	B	1435593-2
AMPTRAC MT-RJ Interface Module	IDC or 110 Plug & Play (1435844/1933152)	Interface Module with SL Insert	6-ports (12-Fiber) SL Insert included (MT-RJ Jacks sold separately)	62.5 µm (OM1)	–	C	1933421-1
				XG 50 µm (OM3)	–	–	1933421-2
				Single-mode (OS1)	–	–	1933421-3
AMPTRAC Duplex LC Interface Module	IDC or 110 Plug & Play (1435844/1933152)	Interface Module with LC Adapters	6-ports (12-Fiber) SL Insert and LC Adapters Included	62.5 µm (OM1)	–	–	1933420-1
				XG 50 µm (OM3)	–	D	1933420-2
				Single-mode (OS1)	–	–	1933420-3
AMPTRAC MT-RJ MPO Cassettes	6-Position Mod Plug (RJ-11) (1499684)	MPO Cassette	6-ports (12-Fiber)	62.5 µm (OM1)	–	–	1435672-2
				XG 50 µm (OM3)	–	–	1435594-2
				Single-mode (OS1)	–	–	1435673-2
AMPTRAC Duplex LC MPO Cassettes	6-Position Mod Plug (RJ-11) (1499684)	MPO Cassette	6-ports (12-Fiber)	62.5 µm (OM1)	–	E	1499648-2
				XG 50 µm (OM3)	–	–	1499647-2
				Single-mode (OS1)	–	–	1499649-2

Note: AMPTRAC MT-RJ and Duplex LC require use of above Drawer or Enclosure.
AMPTRAC MT-RJ Interface Module requires purchase of appropriate MT-RJ Jack or pigtail.

AMPTRAC Duplex SC

AMPTRAC Duplex SC Snap-in Adapter Plates	6-Position 2.54 MTE (1499685)	Snap-in Adapter Plate	6-ports (12-Fiber) includes adapter	Multimode	–	F	1435657-1
				Single-mode (OS1)	–	–	1435657-2
		Retrofit Kit	For Adapter Plate 559596	–	–	–	1435685-1
AMPTRAC Duplex SC MPO Cassettes	6-Position 2.54 MTE (1499685)	MPO Cassette	6-ports (12-Fiber)	62.5 µm (OM1)	–	–	1435653-2
				XG 50 µm (OM3)	–	–	1435688-2
				Single-mode (OS1)	–	G	1435689-2

Note: AMPTRAC Duplex SC Snap-in Adapter Plate and MPO Cassettes use standard fiber enclosures in Chapters 2.5 and 2.6.

LAN Electronic Sensor Strip

Product Facts

- Sensor Strips are readily available for a number of LAN electronic equipment types
- All Sensor Strips are Printed Circuit Board (PCB) with 2.0 mm AMPMODU connector.
- Custom Sensor Strips can be designed to work with most LAN electronic equipment. For assistance, call AMP NETCONNECT Customer Service at 1-800-553-0938
- LAN equipment manufacturer, model number, and model revision are required in determining the selection of the proper sensor strip
- Sensor strips contain an adhesive backing for easy installation

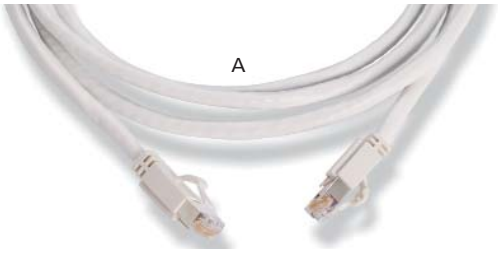
RJ-45 Copper Ports

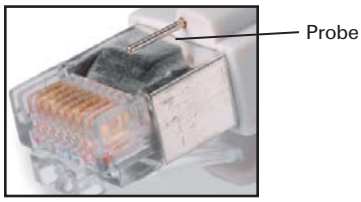
Description of Equipment	Part Number	# of Ports	# Ports per Group	# of Port Groups
AMP NETCONNECT 50 Port Telephone Patch Panel	1435954-1	50	50	1
CISCO 4000 and 6000 Blades (48-port)	1933228-1	48	16	3
NORTEL BAYSTACK 470-48T	1435939-1	48	16	3
CISCO WS-3750G-48TS-S	1499798-1	48	16	3
CISCO 4000 and 6000 RJ-45 48-Port switch blades	1499651-1	48	12	4
NORTEL BAYSTACK 5520	1499660-1	48	12	4
CISCO 2950, WS-C2950SX-24	1435827-1	26	8/2	3/1
CISCO 4000 and 6000 RJ-45 48-Port switch blades	1435346-1	24	12	2
CISCO 3500 (48-Port) and WS-C2950G-48-EI	1435346-4	24	16/8	2
CISCO 3500 - 24-Port	1435346-5	24	12	2
NORTEL BAYSTACK 450-24T	1435933-1	24	12	2
CISCO 3950G-24PS, Alcatel 6600-24	1777005-1	24	12	2
NORTEL PASSPORT 8648	1777014-1	24	12	2
Tyco Electronics Stackable 1591099-X	1933184-1	24	8	3
Enterasys	1499759-1	16	8	2
Extreme Summit48i 1433	1435927-1	16	8	2
CISCO 3750G-24TS-E, 3560-48TS, C2950G-24EI, 12-Port Generic	1777019-1	12	12	1
CISCO WS-3750G-24S	1499800-1	12	12	1
Extreme Summit1i, Summit5i, Alpine 3808	1435952-1	12	12	1
HP Procurve J4111A	1933098-1	8	8	1
MARCONI ES-3824	1499810-1	8	8	1

Fiber Ports

CISCO WS-X6324-100-FX-MM (24-Port MT-RJ)	1435937-1	24	24	1
MARCONI ESR5000 (24-Port MT-RJ)	1499875-1	24	4	6
CISCO 16-Port GBIC Blade "Ladder"	1435820-1	16	8	2
CISCO WS-3750G-12S-S (12-Port LC)	1499795-1	12	4	3
8-Port Fiber	1435849-1	8	8	1
MARCONI ESR5000 (8-Port SC uplink)	1499883-1	8	8	1
CISCO WS-3750G-24S (4-Port LC uplink)	1499794-1	4	4	1
MARCONI NM/4155MMSCE (4-Port SC uplink)	1499862-1	4	4	1
CISCO 3500 Fiber Uplink Ports "U" shape	1435818-1	2	2	1
2-Port LC Uplink	1479889-1	2	2	1
CISCO WS-3750G-48TS-S (2-Port LC uplink)	1499799-1	2	2	1
CISCO 2950 (2-Port Fiber uplink)	1933180-1	2	2	1
Single Fiber Uplink	1435950-1	1	1	1

Twisted Pair Patch Cable Assemblies





Product Facts

- Meets or exceeds Category 6 performance specifications
- Cat 6A shielded assembly Meets or exceeds the channel specifications of ANSI/TIA-568-B.2-10 Category 6A and Amendment 1 to ISO/IED 11801:2002 Class E_A up to 500MHz when used as a component in a properly installed AMP NETCONNECT XG F/UTP channel.
- Cat 6A shielded assembly meets or exceeds all requirements for IEEE 802.3an 10 Gigabit Ethernet
- Patch cable assemblies contain 9th conductor that is connected to external probe molded into the modular plug boot
- Backward compatibility permits assemblies to support new or existing Category 5e systems
- External probe makes contact with sensor pad on the sensor strip and/or patch panel sensor contact
- Off-center probe designed to accommodate stacked-jack LAN switch configurations
- Non-plenum jacketing, CMR rated
- Color matched over-molded snagless boots
- Crossover patch cable assemblies are unshielded with red cable jacketing and black over-molded boots

Description	Wiring	Figure	Part Number								
			Black	Gray	Blue	Green	Red	White	Yellow	Orange	Violet
Cat 6 Unshielded	Universal	A	1435864-X	1435835-X	1435861-X	1435860-X	1435862-X	1435834-X	1435863-X	1435918-X	1435919-X
	Crossover	–	–	–	–	–	1435953-X	–	–	–	–
Cat 6A Shielded	Universal	–	–	–	–	–	–	1499740-X	–	–	–

X denotes length in feet: -3 = 3, -5 = 5, -7 = 7, 1--0 = 10, 1--4 = 14, 1--6 = 16, 2--5 = 25

Optical Fiber Patch Cable Assemblies

MT-RJ

Product Facts

- Meets or Exceeds optical performance specifications for 62.5 µm (OM1), XG (50 µm (OM3)) multimode and single-mode (OS1)
- Duplex SC, MT-RJ and Duplex LC assemblies available
- Patch cable assemblies contain copper conductor that is connected to external probe
- External probe makes contact with sensor pad on the sensor strip and/or patch panel sensor contact
- One wire/one probe design to monitor duplex fiber port as a single connection
- OFCR riser rated and listed cable
- Cable is a mini-tri-zip design for flexibility and small size

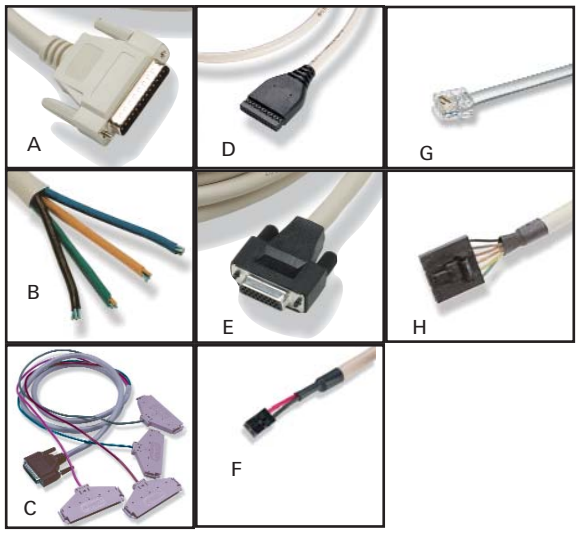
Connector End 1 (Figure)	Connector End 2 (Figure)	Fiber Type	Part Number
MT-RJ	MT-RJ	62.5 µm (OM1)	1435351-X
		XG 50 µm (OM3)	1435352-X
		Single-mode (OS1)	1435353-X
MT-RJ	Duplex SC	62.5 µm (OM1)	1435355-X
		XG 50 µm (OM3)	1435356-X
		Single-mode (OS1)	1435357-X
MT-RJ	Duplex LC	62.5 µm (OM1)	1435792-X
		XG 50 µm (OM3)	1435793-X
		Single-mode (OS1)	1435794-X
Duplex SC	Duplex SC	62.5 µm (OM1)	1435724-X
		XG 50 µm (OM3)	1435725-X
		Single-mode (OS1)	1435726-X
Duplex SC	Duplex LC	62.5 µm (OM1)	1435795-X
		XG 50 µm (OM3)	1435796-X
		Single-mode (OS1)	1435797-X
Duplex LC	Duplex LC	62.5 µm (OM1)	1435789-X
		XG 50 µm (OM3)	1435790-X
		Single-mode (OS1)	1435791-X

X denotes length in meters: -1 = 1, -2 = 2, -3 = 3, -5 = 5, -7 = 7, 1--0 = 10

Duplex SC

Duplex LC

Analyzer I/O Cable Assemblies



Product Facts

- AMPTRAC Connectivity Management System I/O Cable Assemblies are available with the following connectors
  - DB25 connector (on Analyzer)
  - 110 Plug and Play connector (on AMPTRAC SL Series patch panels) and MT-RJ/Duplex LC Interface Modules
  - HD22 connector (on MRJ21 connectors and shielded patch panels)
  - 2.0 mm AMPMODU connector (used with the Analyzer DB25 adapter 1499641-1)
  - 2.0 mm AMPMODU (on sensor strips)
  - 6-position modular plug (RJ11) (on MT-RJ and LC Duplex MPO Cassettes)
  - 6-position 2.54 MTE connector (on Duplex SC adapter plates and MPO cassettes)
- All I/O cables come with molded boots on the analyzer connector end
- I/O Cable Assemblies are Non-Plenum (CM rated) and Listed

Monitored Device	Application	Connector End 1 (Figure)	Connector End 2 (Figure)	Number of Conductors	Part Number
SL, MT-RJ, and LC Patch Panels	Cat 6A F/UTP, Cat 6 U/UTP MT-RJ, Duplex LC	DB25 - Analyzer (A)	None - used with IDC (B)	24	1435844-X
			110 Plug & Play (C)	24	1933152-Y
MRJ21	MRJ21	DB25 - Analyzer (A)	HD22 (E)	24	1499507-Y
PCB Sensor	LAN Switches	DB25 - Analyzer (A)	2.0 mm (D)	24	1435845-Y
		2.0 mm (D)*	2.0 mm (D)	16	1499686-Y
				12	1499687-Y
				8	1499688-Y
				6	1499689-Y
				2	1499690-Y
MT-RJ/LC MPO Cassettes	MT-RJ & Duplex LC	2.0 mm (D)*	6-Position, RJ11 (G)	6	1499684-Y
Duplex SC	Duplex SC Adapter Plates and MPO Cassettes	2.0 mm (D)*	6-Position 2.54 MTE (H)	6	1499685-Y

X denotes length in feet: -7 = 7, 1--4 = 14, 5--0 = 50, 9--9 = 100 (Note: Can be cut to length)
Y denotes length in feet: -4 = 4, -7 = 7, 1--0 = 10, 1--4 = 14, 2--5 = 25, 5--0 = 50, 7--5 = 75, 9--9 = 100
***NOTE:** Use with DB25 Adapter P/N: 1499641-1 to connect monitored device to AMPTRAC Analyzer.

Adapter, DB25 to 2.0 mm AMPMODU

PART NUMBER 1499641-1

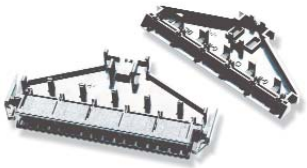
Back Detail - 24 Position
2.0 mm AMPMODU

Product Facts

- For use with 2.0 mm connectors less than 24 position
- Allows for side-by-side connections of multiple 2.0 mm AMPMODU connectors
- Allows for use of all analyzer ports
- Built-in strain relief and cable management

110 Plug and Play Kit

PART NUMBER 1933151-1



Product Facts

- Used with I/O Cable Assembly part number 1435844 (use 4 per assembly) for custom length
- Easy to lace and field terminate (no special tools required)
- Built-in latches and orientation features

I/O Cable Management Brackets


A


B


C


D

Product Facts

- Universal brackets provide support for I/O cable assemblies
- Adjustable
- Utilize existing patch panel mounting hardware

Description	Width	Figure	Part Number
Universal Bracket	40 mm	A	1499659-1
	100 mm	B	1499659-2
	448 mm	C	1499659-3
I/O Cable Retainer Bracket for Cisco 3500, 48-Port switch		D	1435779-1

iTRACS® Infrastructure Manager™ Software

Software for the AMPTRAC Connectivity Management System

THE PRODUCT DESIGN

iTRACS Infrastructure Manager software has been designed for customers of AMP NETCONNECT, as it functions in tandem with AMPTRAC hardware. The software is designed to explore and discover and map the connectivity of the customer network. It is further designed to simplify the process of all future moves, adds and changes (MACs) of end-users. The software allows simultaneous access by a spectrum of department representatives; these include help desk, planning, network administration, supervision and technicians.

THE CLIENT CUSTOMERS - THE PROBLEMS OF COMPLEX NETWORKS - SOLVED

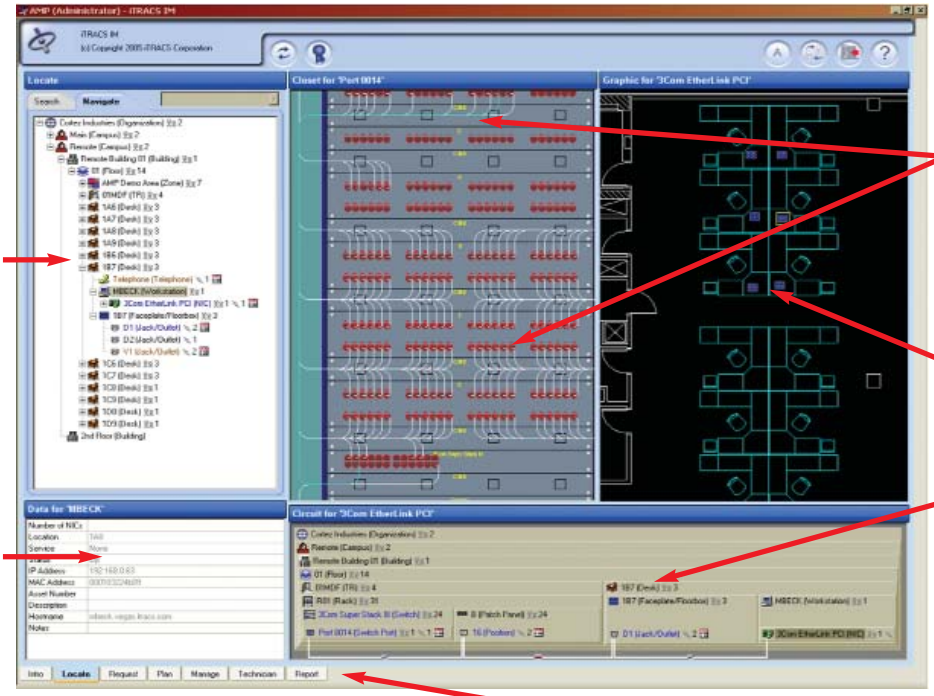
iTRACS IM software is ideally suited to customers with complex data/telecom networks and critical applications. Examples include financial institutions, insurance providers, data centers, high security government facilities, military defense facilities, airports, medical centers, universities and corporate headquarters.

These customers and clients share the difficult management of complicated networks, requiring accurate record-keeping, high security, and frequent MACs. The simplification of the work order process also provides valuable benefits to client networks of any size, from small to enterprise network.

PRODUCT LEADERSHIP

iTRACS IM Software, as one of the earliest developers of Cable Management Software (CMS), has maintained an international leadership position in CMS design for more than 15 years. iTRACS IM has been specifically designed to automate the MAC record maintenance process, to simplify the user interface and to share access across departments.

Ask for a demonstration today!



Tyco Electronics

800-553-0938

www.ampnetconnect.com

iTRACS® IM - Intelligent Infrastructure Management Software

iTRACS IM software has been designed to work with AMP NETCONNECT AMPTRAC Connectivity Management System hardware. Together they create an automated, accurate, real-time physical layer management system. This combined system proactively responds to changes in connectivity and intelligently records your cabling system and its devices with accurate documentation. You reduce costs by eliminating time-consuming manual work order processes. You also maximize your existing network investment by identifying under-utilized assets.

Product Facts

- **Real-Time Monitoring** - automates the process of discovering, documenting, monitoring, and managing the physical network's connections and its devices.
- **Automatically Updates the Database** - reports authorized or unauthorized changes in real time.
- **Self-Discover Patching** - discovers all iTRACS-enabled port connectivity.
- **Event Logs** - whenever the system detects a connectivity change, it automatically creates an entry in an internal comprehensive log.
- **Automated Work Order Process** - iTRACS Infrastructure Manager software provides a greatly automated work order system, to be shared by the Help Desk, Network/Telecom managers and technicians. It is the simplest and most intelligent system available. Each user works from a simple user interface, unique to their task.
- Access rights and privileges are determined by the administrator. Authorized users select proposed moves of workstations, phones, printers or other equipment. Moves can be performed singly or in bulk, as in departmental relocation. The system automatically generates auto-routing, and a step-by-step work order and schedule, which can be accepted or revised by the user. Tasks can be divided and distributed between various supervisors and technicians via email. Work orders can include system diagrams and floor plans.
- When a work order is completed for an iTRACS IM Software monitored port, the system record instantly updates, ensuring accurate information. Should an unauthorized change occur, iTRACS IM Software can generate a work order to reverse the unwanted action.
- For un-monitored ports, a simple verification by technical staff/management ensures that the work flow automatically updates the iTRACS IM Software database.
- The system can also generate comprehensive reports containing all work order details such as the author, status, creation and scheduled dates, and notes.
- **Terminal Service** - iTRACS IM Software can be accessed via terminal service therefore allowing full functionality and viewing by remote users.
- **Tablet PC** - with iTRACS IM Software Compatible hardware, you can use any Windows Tablet PC to setup AMPTRAC equipment; or to query the database in real time. You can also map ports, remotely create and delete database items, conduct circuit traces of individual ports, and perform diagnostic tests on specific ports. All other iTRACS IM Software functions are also accessible.
- **Automatic Re-Synchronization** - if a network outage should occur, the iTRACS IM Software database automatically re-synchronizes upon the restoration of power, showing network asset connectivity changes.
- **Security Features** - iTRACS IM Software distinguishes unauthorized changes from authorized ones.
- **Alerts** - receive a text message via email containing a pre-defined message.
- **More Detailed Reports** - iTRACS IM Software provides a library of detailed reports of cable, port and asset utilization. These reports are invaluable to network administrators and asset managers.
- **Auto-routing** - The system automatically generates suggested Auto-routing, and a step-by-step work order and schedule, which can be accepted or revised by the user.

IM Enhancements (9.0)

- Supports Character based languages as well as Latin based
- Work Order communicates with AMPTRAC Analyzer LCD

Description	Part Number
iTRACS IM Software with one-year Gold Plus Service Agreement	Sold With Analyzer
iTRACS IM Software Concurrent User Pack (5 additional users)	1479979-1

Notes