

Cable Assemblies

High-Speed Cable Assemblies
Test and Measurement Cable Assemblies $\ldots \ldots \ldots .4\text{-}4$
Power Cable Assemblies
Standard & Custom Cable Assemblies
Terminators
Medical Cable Assemblies
Reference these additional Cable Assemblies in other sections of this catalog:
Fiber Optic Cable Assembliessee Section 10
Premises Networking Cable Assembliessee Section 13







AMP Z-PACK 2mm HM Cable Assemblies

- High-density, 5-row system
- 220 pins per 100 mm of length
- Designed for sub-nanosecond rise time signals
- Designed in accordance with the Hard Metric Equipment Practice
- Designed for manufacture with resistance welding for 6 Sigma Reliability
- Versatile high- and low-speed cables available
- Shrouds with latching, keying and polarization



AMP Z-PACK HM-Zd Cable Assemblies

- Serves multiple high-speed applications such as enterprise/Ethernet switching, core, edge and remote routers and servers, mass storage, ATM, SONET and custom platforms
- Individual ground shields for each pair reduce cross talk at higher speeds
- Demonstrated operation at speeds as high as 12 Gbps
- Standard PCB module size of 25 mm
- Available in two versions
 - 2 signal contact pairs per column (20 pairs per 25 mm)
 - 4 signal contact pairs per column (40 pairs per 25 mm)
- Equalization capability for longer cables

AMP MultiXcavi (4X/12X) High Speed Cable Assemblies

- Designed for InfiniBand, Fibre Channel, Gigabit Ethernet (CX4) and SAS applications
- High signal integrity capabilities
- Different versions running from 1 to 3.125 Gbps
- Fully shielded for EMI/RFI protection
- Available with or without passive equalization
- Robust strain relief and wire retention
- Available in three latching styles
- Reduced crosstalk (less than 3%)
- Available with standard 28, 26, and 24 AWG wire
- Accommodates custom applications including non-standard wiring patterns, customer-specific wire gauges and special bundling





AMP MRJ 21 Cable Assemblies

- Used in network closets, digital cross connects, DSLAM, core and edge routers; most places where modular plugs are used today
- Dense CHAMP Connector-style double-blade design allows 1.5 to 3 times the port density of 2 x 6 stacked Modular Jack (RJ45)
- Three times the port density of an RJ21
- Height of the dual receptacle meets the requirements of the Compact PCI component standard
- Contact layout and footprint for differential pairs create reduced crosstalk and built in compression
- Crosstalk is designed to meet or exceed Cat 5e
- Jackscrews for positive latching and secure cable retention
- Fully shielded system to control EMI
- Durability of 500 cycles
- 180° (straight) and 45° (angled) cable exits for ease of routing to component racks
- Can also be used with coaxial cable for BNC connection



AMP Serial ATA (SATA) Cable Assemblies

- Next generation interface for PCs, low end servers and Direct Access Storage Devices (DASD)
- Meets greater increased bandwidth and performance demands of future Hard Disk Drives (HDD) storage applications
- Point-to-point link with hot-plugging capability
- High Speeds
 - First generation Serial ATA will provide 150Mb/s
 - Second generation Serial ATA will provide 300 Mb/s
 - Third generation Serial ATA will provide 600 Mb/s
 - Several styles to choose from for signal routing, power routing, or both



AMP XFP Cable Assemblies

- 10 Gigabit Serial "intra-rack"
- Used in telecommunications and networking switches
- Ethernet (10 GBE)
- Fibre Channel (10 GFC)
- Lengths from 0.5 to 10 meters
- Lower port cost than equivalent optic links
- Lower power consumption than equivalent optic links
- Reduced cooling and thermal system requirements
- Die-cast metal housing and gaskets provide superior EMI/RFI performance
- PCB interface permits a variety of equalization options
- Reduced cable bend radius at exit from equipment



AMP SFP (Small Form Pluggable) Cable Assemblies

- Designed for existing and newly emerging applications such as Fibre Channel, Fast/Gigabit Ethernet, ATM/SONET/SDH, FDDI, and InfiniBand
- Available in 100 and 150 ohm differential impedance
- Durability of 100 cycles
- Hot swappable
- Three stage sequencing GND, VDD, Signal
- Supports data rates beyond 5 Gbps
- Active or passive cable assemblies available
- Meets SFP MSA

Test and Measurement Cable Assemblies



- PRECISION INTERCONNECT BLUE RIBBON Coax Assemblies
- Designed as extender cable assemblies for design and production validations, field service repair and test bench troubleshooting applications
- Highly flexible, robust miniature coax provides easy routing without compromising data integrity
- Suitable for both single ended and differential signals
- Configurations from 38 signal lines to 200 signal lines with .5 mm, .635 mm and .8 mm AMP MICTOR/MICTOR SB high performance connectors
- On-line interactive design tool: www.tycoelectronics.com/pi/blue
- Order Catalog 1654926, "BLUE RIBBON Coax Assemblies"

Power Cable Assemblies



AMPOWER Wave Crimp System

- Termination of flat cable does not reduce cable cross section and provides a reliable, low resistance, gas-tight interface
- Separable interfaces have positive locking, polarization and contact shrouding
- Cable-to-board, cable-to-cable and blind-mate board-to-panel configurations
- Multiple configurations of power only, or power and signal assemblies
- Right-angle and vertical headers available
- Single cable assemblies measured at 80-110 A (with 30°C t-rise)
- Unique tap permits branching of trunk lines to serve multiple distribution points



AMP MULTI-BEAM XL Cable Assemblies

- High current ratings 55 A on a single contact at 30°C t-rise
- Low contact resistance only 0.7 milli-ohms at end-of-life conditions
- Low mating force
- Modular power only or power/signal configurations available
- Panel mount or cable-to-board applications
- Great for high-current high-density applications
- Easy to connect/disconnect with squeeze-to-release latch

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Power Cords

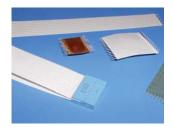
- UL and CSA approved cords, plus certifications from various safety agencies in China, Italy, UK, Japan, France, Germany, and others
- QS 9000 and ISO 9002 Certified
- Process and supplier controls for product safety
- Integrated manufacturing process including PVC mixing, copper drawing, wire extrusion and manual assembly allow for low-cost solution



Value Added Power Assemblies

- Bus bar assemblies with ELCON, AMP MULTI–BEAM XL or AMPOWER Wave Crimp connectors
- Power harnesses
- Hybrid AMPOWER Wave Crimp cable assembly with bus bar
- Custom assemblies to fit numerous power applications

Standard & Custom Cable Assemblies



FLEXSTRIP (Flat) Cable Assemblies

- Versatile and highly flexible board-to-board jumper system
- Promotes reliable connections between PCBs without wire stripping or preparation
- Round-to-flat design provides vibration resistant reliability and long life
- Nomex®, Teflon®, Polyester and Kapton® insulation materials for high-volume commercial use as well as military/aerospace applications
- Nine conductor pitches available
- Various insulation lengths from 0.5" to 30" in .100" increments
- Low installed cost because no crimping or cutting is required
- Various pin lengths/configurations to suit all standard PCBs
- FLEXPAC Cable Connector Assembly System available in 2 mm and 2.54 mm centerlines



Standard (Round) Cable Assemblies

- Wide variety of industry standard products offered, including USB, Mini-USB, DVI, and HDMI
- Certified global manufacturing sites
- Fully integrated manufacturing cable and connectors through final cable assembly
- Global production facilities permit customer requirements to be serviced locally
- Assemblies 100% electrically tested

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RF/Coaxial Cable Assemblies

- Broad product offering of standard RG and low loss cable assemblies, as well as high performance delay coils, phase matched jumpers and semi-rigid assemblies
- Global production facilities ensure that customer requirements can be serviced locally
- Testing capabilities for design verification as well as production conformance screening using Vector Network Analyzers, TDR and Passive Intermodulation test equipment
- Integrated product offering of Tyco Electronics RF connectors and cable go into our coaxial cable assemblies



Custom Cable Assemblies

- Tyco Electronics can produce a wide variety of custom cable assemblies that conform to customer-specific requirements
- Cable types include:
 - Multi-conductor jacketed
 - Discrete, flat ribbon
 - Coaxial ribbon
 - Flexible flat conductor (FFC)
 - Conformable
 - Semi-rigid RG
- Numerous connector options from Tyco Electronics' product portfolio
- Certified global manufacturing sites
- Fully integrated manufacturing -- cable and connectors through final cable assembly
- Assemblies 100% electrically tested

Terminators

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Terminators

- Termination circuits that conform to all versions of SCSI standards including SPI-3 (Ultra160) and SPI-4 (Ultra320)
- Connector interfaces that conform to all versions of SCSI standards (external shielded and internal unshielded)
- All terminators 100% visually inspected and electrically tested
- PC boards engineered and controlled by Tyco Electronics Engineering to IPC standards
- Customer designs available for specific customer applications
- Terminators incorporate integrated circuits from industry recognized leaders in SCSI termination chips

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PRECISION INTERCONNECT COMFORT Cable Assemblies

- Designed for hand held diagnostic ultrasound probes
- Ergonomic design to minimize user fatigue
- Torque reduced by 23% compared to traditional cable
- Enthusiastically preferred by 90% of sonographers surveyed
- True coax construction for improved crosstalk
- Available in 40 AWG, 42 AWG, 46 AWG and both 50 ohm and 75 ohm coax
- Order Catalog 1654916, "COMFORT Cable Assemblies"



PRECISION INTERCONNECT MODULUS3 Cable Assemblies

- Designed for hand held diagnostic ultrasound probes
- Pre-engineered modular cable assembly platform
- Ergonomic small form factor ZIF housings for 156 and 260 contact ZIF connectors
- Fully shielded cable and ZIF housing
- Transducer interface connectorized for easy transducer attachment
- Order Catalog 1654915, "MODULUS3 Cable Assemblies"



PRECISION INTERCONNECT BASIS Cable Assemblies

- Designed for video cable assemblies used in the surgical suite
- STERITHANE cable jacket suitable for EtO, STERIS, STERRAD, CIDEX sterilization methods
- STERITHANE cable jacket has excellent crush and cut through resistance
- STERILENE cable jacket version suitable for autoclave sterilization
- STERILENE enhanced ergonomic jacket has smooth feel
- Fully shielded metal circular connectors
- On-line interactive design tool: www.tycoelectronics.com/pi
- Order Catalog 1654917, "BASIS Surgical Video Cable Assemblies"



PRECISION INTERCONNECT ERGOLINE Patient Cable Assemblies

- Designed for resting diagnostic cardiology ECG applications
- Ergonomically designed for both clinician and patient with lightweight yoke and anatomically correct lead configurations
- Fully shielded cable and lead wires for low noise
- Wide variety of patient and equipment connectors
- Meets applicable performance requirements of ANSI/AAMI EC-53 1995 standard
- Validated to meet EN60601-2-25 defibrillation withstand
- Available in 3, 5, and 10 lead configurations with AHA or IEC color coding
- On-line interactive design tool: www.tycoelectronics.com/pi
- Order Catalog 1654921, "ERGOLINE Patient Cable Assemblies"





PRECISION INTERCONNECT SLIMLINE-EMS Patient Cable Assemblies

- Designed for emergency medical applications
- Ergonomically designed with small, slim yoke
- Fully shielded cable and lead wires for low noise
- Color coded lead wires and patient connectors for ease in rapid identification
- Wide variety of patient and equipment connectors
- Meets applicable performance requirements of ANSI/AAMI EC-53 1995 standard
- Available in 3 and 5 lead configurations with AHA or IEC color coding
- Order Catalog 1654923, "SLIMLINE-EMS Patient Cable and Lead Wire System"

PRECISION INTERCONNECT LIFELINC Patient Cable Assemblies Designed for bedside monitoring applications

- Replaceable lead wires with keyed locking system for safe and secure connections
- Ergonomically designed with small and compact yoke
- Fully shielded cable and lead wires for low noise
- Color coded lead wires and patient connectors for ease in identification
- Wide variety of patient and equipment connectors
- Meets applicable performance requirements of ANSI/AAMI EC-53 1995 standard
- Available in 3 and 5 lead configurations with AHA or IEC color coding
- Order Catalog 1654919, "LIFELINC Patient Cable and Lead Wire System"



PRECISION INTERCONNECT Custom Cable Assemblies

- When a solution doesn't exist, Tyco Electronics engineers will design a solution
- Defibrillator paddle cable assemblies
- Blood Pressure cable assemblies
- SpO2 cable assemblies
- Temperature probe cable assemblies
- EEG cable assemblies
- Order Catalog 1309185, "Solutions for Medical"

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