Structured Solutions
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Sales Support
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Technical Support
& Design Applications
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As technology brings the world closer, homes become the central location for working, learning and entertaining. Honeywell’s structured wiring and cabling products integrate the most advanced home wiring and networking technologies into simple, affordable, upgradable solutions that entertain, protect and inform the homeowner.
Honeywell provides intelligent, unique structured wiring solutions that make appliances and electronics work together. This synergy helps organize and distribute different technologies throughout the home in order to enhance the quality of consumer’s lives—integrating security, home entertainment, computer networking, audio and video, cable and satellite TV and HVAC. The system contains everything consumers need to Future Proof® their homes, making sure it’s wired for today’s world and tomorrow’s advancements.

Every room in the home can be wired for entertaining, letting your customers enjoy the rich, full sights and sounds of home theater, multi-room video and multi-room audio in any location. Security can be controlled via telephones, wireless remotes or keypads and cameras can be incorporated for extra peace of mind. Home automation provides unrivaled comfort and convenience. Family members can also share the same Internet line, files and printers—enabling simultaneous online access.

Honeywell’s structured solutions can be used on installations ranging from small entry-level residences, apartments and condominiums to high-end luxury custom homes. Consumers can choose packages that match their needs and budgets, and existing services can be expanded, changed, or replaced as their needs grow.

Honeywell’s structured wiring panels are easy to install, easy to use, and integrate seamlessly with both Honeywell’s home control products as well as those from companies such as HAI, Crestron and AMX. Best of all, they can make the dream home of the future an affordable reality... today.
APARTMENT AND CONDOMINIUM NETWORKS

Ideal for apartments, condos and entry-level homes, these panels distribute telephone lines and video feeds to various locations throughout the residence. Highlights include quick, easy installation and a housing cover that provides a professional looking finish.

AN100
Distribution Panel
• Distributes four incoming telephone lines to six locations and one incoming coax signal to four locations
• Easy installation
• Stylish cover provides a professional looking finish
• Dimensions: Install ring – 5.5" W x 4" H
  Cover – 6.5" W x 4.75" H

QND200
Distribution Panel
• Distributes one incoming coax signal to four locations with two pass throughs for satellite, eight RJ 45 connectors for telephone distribution
• Room for expansion module
• Includes cover and one RJ 31X jack
• Power not included
• Dimensions: 6" x 14.5"

QND300
Distribution Panel
• Distributes one incoming coax signal to eight locations with amplifications and with two pass throughs for satellite, eight RJ 45 connectors for telephone distribution
• Room for one expansion module
• Includes cover and one RJ 31X jack
• Power not included
• Dimensions: 6" x 14.5"
The economical QuickNetwork series of panels distribute telephone, data and video signals throughout the home, and are available in a variety of configurations to meet the needs of any project or budget. The convenient recessed design allows cables to be hidden behind the cover for an aesthetically pleasing appearance.

**DISTRIBUTION PANELS FOR QUICKNETWORK SERIES**

**QND48P**
QuickNetwork Panel
- Services up to eight telephone locations and four TV locations
- One in, four out coax (TV) distribution module with two pass through connections for DBS satellite
- Four line to eight location telephone module (Cat5 rated, RJ 45 with RJ 31X connector)
- Built-in 110V power outlet
- 18” install panel and cover
- Dimensions: 14.5”W x 18”H x 4”D

**QND4800**
QuickNetwork Panel
- Same features as QND48P except with 110 punch-down style connector on telephone module instead of RJ 45 connectors
- Built-in 110V power outlet
- 18” install panel and cover
- Dimensions: 14.5”W x 18”H x 4”D

**QND88P**
QuickNetwork Panel
- Services up to eight telephone locations and eight TV locations
- One in, eight out coax (TV) distribution module with two pass through connections for DBS satellite
- Four line to eight location telephone module (Cat5 rated, RJ 45 with RJ 31X connector)
- Built-in 110V power outlet
- 18” install panel and cover
- Dimensions: 14.5”W x 18”H x 4”D
QuickNetwork Distribution Panels

DISTRIBUTION PANELS FOR QUICKNETWORK SERIES

**QND8800**
QuickNetwork Panel
- Services up to eight telephone locations and eight TV locations
- One in eight out coax (TV) distribution module with two pass through connections for DBS satellite
- Four line to eight location telephone module 110 punch-down style connector
- Built-in 110V power outlet
- 18" install panel and cover
- Dimensions: 14.5"W x 18"H x 4"D

**QND88200**
QuickNetwork Panel
- Combination 8x8 amplified coax/phone distribution module with RJ 45 connectors
- Distributes one incoming coax TV line to eight locations with built-in amplification plus two pass throughs and four telephone lines to eight locations
- Includes an RJ 31X connection
- 18" install panel and cover
- Built-in 110V power outlet
- Dimensions: 14.5"W x 18"H x 4"D

**QND88400**
QuickNetwork Panel
- Combination 8x8 amplified coax/phone distribution module with 110 punch-down connectors
- Distributes one incoming coax signal to eight locations with amplification
- Two RG6 pass through connectors for SATV and four telephone lines to eight locations
- 18" install panel and cover
- Built-in 110V power outlet
- Dimensions: 14.5"W x 18"H x 4"D
**Quick Network Distribution Panels**

**DISTRIBUTION PANELS FOR QUICKNETWORK SERIES**

**QNP6X**

**QuickNetwork 6 Panel**
- Services up to six zones
- Six populated zones, including a total of 12 Cat5e connections, 12 RG6 coax connections, 6 Cat5 patch cords, and 6 RG6-rated coax patch cords
- Includes one five in, eight out coax (TV) distribution module with 4 pass through, surge suppression and 20 db bidirectional amplifier
- One four line to 12 location telephone module (Cat5 rated, RJ 45) with surge suppression, RJ 31X security system connection, and a PBX/KSU connection
- Five expansion bays
- Built-in 110V power outlet
- 36" install panel and cover
- Dimensions: 14.5"W x 36"H x 4"D

**QNP12X**

**QuickNetwork 12 Panel**
- Services up to 12 zones
- 12 populated zones, including a total of 24 Cat5e connections, 24 RG6 coax connections, 12 Cat5 patch cords, and 12 RG6 coax patch cords
- Includes one five in, 12 out coax (TV) distribution module with 4 pass through, surge suppression and 20 db bidirectional amplifier
- One four line to 12 location telephone module (Cat5 rated, RJ 45) with surge suppression, RJ 31X security system connection, and a PBX/KSU connection
- Built-in 110V power outlet
- 36" install panel and cover
- Dimensions: 14.5"W x 36"H x 4"D

**QNP18X**

**QuickNetwork 18 Panel**
- Services up to 18 zones
- 18 populated zones, including a total of 32 Cat5e connections, 32 RG6 coax connections, 18 Cat5 patch cords, and 18 RG6-rated coax patch cords
- Includes one five in, 16 out coax (TV) distribution module with 4 pass through, surge suppression and 20 db bidirectional amplifier
- One four line to 12 location telephone module (Cat5 rated, RJ 45) with surge suppression, RJ 31X security system connection, and a PBX/KSU connection
- Built-in 110V power outlet
- 48" install panel and cover
- Dimensions: 14.5"W x 48"H x 4"D
MODULES FOR QUICKNETWORK SERIES PANELS

Whether you need to add security, telephone, satellite TV or whole-house audio, count on Honeywell’s QuickNetwork modules to effortlessly expand your customer’s system based on their needs and requirements.

**Telephone**

**MDT124P**

12 Port, 4 Line Telephone Module
- 12 RJ 45 ports (Cat5 rated) support four incoming phone lines with speeds up to 100Mbps
- Includes two Amphenol connectors for interface to a Key System Unit (KSU) or PBX. Amphenol connectors include shorting block for compatibility with Plain Old Telephone Service (POTS) lines
- Also includes surge suppression and one RJ31X port
- 12" form factor

**MDT122P**

12 Port, 2 Line Telephone Module
- Harmonica-style twisted pair module used for connecting and distributing voice at speeds up to 10Mbps
- Includes 12 RJ 11 ports, supports two incoming telephone lines, and an Amphenol connector for interface with a telephone Key System Unit (KSU) or PBX. Amphenol connector includes shorting block for compatibility with Plain Old Telephone Service (POTS) lines
- Includes surge suppression
- 12" form factor

**MDT083P**

8 Port, 3 Line Telephone Hub
- RJ 11 harmonica-style twisted pair module is designed to work with Panasonic Key Service Units (KSUs) that require a three-pair connection
- Note: A shorting block is not provided with this module. Cannot be used with Plain Old Telephone Service (POTS)
- 6" form factor
Telephone

**MDT124HB**
12 Port, 4 Line Punch-down Telephone Module for KSU
- 12 110 punch-down blocks which distribute four incoming lines to 12 locations
- 6" form factor

**MDT412100**
12 Port, 4 Line Punch-down Telephone Module
- 12 110 punch-down blocks which distribute four incoming lines to 12 locations
- 6" form factor

**MDT8RJ**
8 Port, 4 Line Telephone Module
- Eight RJ 45 ports support four incoming phone lines
- One RJ 31X port for security
- 6" form factor

**MDT416100**
16 Port, 4 Line Telephone Module
- 16 RJ 45 ports support four incoming phone lines
- One RJ 31X port for security
- 6" form factor

Video

**MDC 104**
1x4 Coax Module
- One in, four out coax module with four pass through connectors
- 6" form factor
**MDC 104500**, same features as above except rated for 2 GHz

**MDC 108**
1x8 Coax Module
- One in, eight out coax module with two pass through connectors
- 6" form factor

**MDC 108200**
1x8 Amplified Coax Module
- One in, eight out coax module with 12 dB bidirectional amplifier and two pass through connectors
- 6" form factor
**ALSO AVAILABLE:**
**MDC 108500**, same features as above except rated for 2 GHz non-amplified
MODULES FOR QUICKNETWORK SERIES PANELS

Video

**MDC 408 5x8 Coax Module**
- Five in, eight out coax module with 16 dB bi-directional amplifier, surge protection, and four pass through connectors and four inputs for modulated signals
- One input for antenna or CATV
- 12" form factor

**MDC 412 5x12 Coax Module**
- Five in, 12 out coax module with 16 dB bi-directional amplifier, surge protection, four pass through connectors, and four inputs for modulated signals
- One input for antenna or CATV
- 12" form factor

**MDC 416 5x16 Coax Module**
- Five in, 16 out coax module with 16 dB bi-directional amplifier, surge protection, with one direct and four inputs for modulated signals
- One input for antenna or CATV
- 12" form factor

**MDDS 4 Four Location DBS Distribution Module**
- Provides distribution of dual LNB DBS Digital Satellite Dish signal to four locations through a single coax cable without modulation
- Does not work with HDTV Signals
- Each TV location must be connected to a separate DBS receiver where desired
- Antenna/CATV input
- Does not work with Dish TV Systems
- 6" form factor

**MDDS 8202**, same features as above except with distribution up to 8 locations
- Works on up to four Satellite Systems
- Antenna/CATV inputs
- Does not work with Dish 500 TV Systems
- Works with HDTV signals
- 12" form factor

**MDMDO 3 Triple Channel Modulator Module**
- Used for creating in-home TV channels for viewing from any TV in the home
- Signals from three different audio/video sources. For example, TV, VCR, DVD, DBS, satellite TV, and security cameras may be identified and displayed by any TV
- 6" form factor
QuickNetwork Modules

MODULES FOR QUICKNETWORK SERIES PANELS

Audio

**MDAD86**  Eight Location Audio Distribution Module
- Allows audio signal to be distributed to eight stereo locations
- Impedance matched
- 6" form factor

**MDADZ600**  A-BUS® 6 Zone Audio
- Use in QuickNetwork panels
- Distributes Cat5 audio to six locations
- Can be chained to additional modules for more locations
- 6" form factor

A-BUS Multisource/Multizone Distributed Audio

**MDADZHMS**  A-BUS MS/MZ Audio Hub for QuickNetwork Panel
- A-BUS Multisource/Multizone audio distribution hub - one required per installation
- Any of up to 4 sources can be heard in up to 4 zones (2 different pairs of speakers in each zone)
- Includes AC power transformer
- 6" form factor

**MDADZHMS**  A-BUS MS/MZ Expansion Audio Hub for QuickNetwork Panel
- Optional A-BUS Multisource/Multizone audio distribution hub - provides capability of communicating with additional rooms
- Expand an additional 4 zones (2 different pairs of speakers in each zone)
- Includes AC power transformer
- 6" form factor

Intercom

**MDADZICH**  A-BUS Intercom Hub for QuickNetwork Panels
- A-BUS Intercom Hub mounted in QuickNetwork Panel Module Housing
- Capable of connecting 8 number of rooms with any mixture of either AUDZICRM or AUDZICMC
- Connect up to 8 rooms per hub
- Connect and control up to 2 doors per hub
- Includes AC power transformer
- 6" form factor
Modules for QuickNetwork Series Panels

Combination Telephone/Video

**MDC4T8RJ**
Combo 4x8 Coax/Phone Distribution Module
- With RJ 45 patch connectors
- Distributes one incoming coax TV line to four locations plus two pass throughs and four telephone lines to eight locations
- Includes RJ 31X connection
- 6" form factor

**MDX48300**
Combo 4x8 Coax/Phone Distribution Module
- Distributes one incoming coax TV line to four locations plus two pass throughs and four telephone lines to eight locations
- With 110 punch-down connectors
- 6" form factor

**MDX48500**
Combo 4x8 Coax/Phone Distribution Module
- With RJ 45 connectors
- Distributes one incoming coax TV line to four locations plus two pass throughs and four telephone lines to eight locations
- Rated for 2 GHz
- 6" form factor

**MDC8T8RJ**
Combo 8x8 Passive Coax/Phone Distribution Module
- With RJ 45 patch connectors
- Distributes one incoming coax TV line to eight locations plus two pass throughs and four telephone lines to eight locations
- Includes RJ 31X connection
- 6" form factor

**MDX88200**
Combo 8x8 Active Coax/Phone Distribution Module
- With RJ 45 patch connectors
- Distributes one incoming coax TV line to eight locations with built-in amplification plus two pass throughs and four telephone lines to eight locations
- Includes RJ 31X connection
- 6" form factor

**MDX88300**
Combo 8x8 Passive Coax/Phone Distribution Module
- With 110 punch-down connectors
- Distributes one incoming coax TV line to eight locations plus two pass throughs and four telephone lines to eight locations
- With 110 punch-down connectors
- 6" form factor
MODULES FOR QUICKNETWORK SERIES PANELS

Combination Telephone/Video

**MDX88400**
**Combo 8x8 Active Coax/Phone Distribution Module**
- With 110 punch-down connectors
- Distributes one incoming coax TV line to eight locations with built-in amplification plus two pass throughs and four telephone lines to eight locations
- Includes RJ 31X connection
- 6” form factor

**MDX88500**
**Combo 8x8 Passive Coax/Phone Distribution Module**
- With RJ 45 patch connectors
- Distributes one incoming coax TV line to eight locations (plus two pass throughs) and four telephone lines to eight locations
- Includes RJ 31X connection
- Rated for 2 GHz
- 6” form factor

Patch Modules

**MDB100**
**Expansion Bay Blank**
- This blank is used to cover open area or conceal wires that are running through the QuickNetwork distribution panel
- 6” form factor

**MDPB**
**Blank Patch Module**
- Use this blank patch module to custom design a zone
- Accepts any configuration of Honeywell's inserts to terminate and distribute virtually any type of low voltage signal
- Labeling allows identification of connections/rooms
- 6” form factor

**MDP2**
**Two Zone Patch Module**
- 12 connection ports
- Two Cat5, two coax, and two fiber optic connections per zone
- 6” form factor

**MDP3**
**Three Zone Patch Module**
- 12 connection ports
- Two Cat5 and two coax per zone
- 6” form factor
**MDEN108**  
*Eight Port, 10/100 Base-T Ethernet Switch Module*  
- Creates a Local Area Network (LAN) by connecting up to eight computers, printers, scanners, fax machines, etc.  
- Supports data transfer speeds up to 100 Mbps  
- Stackable and bridgeable  
- 12" form factor

**MDEN105**  
*Five Port, 10/100 Base-T Ethernet Switch Module*  
- Creates a Local Area Network (LAN) by connecting up to five computers, printers, scanners, fax machines, etc.  
- Supports data transfer speeds up to 100 Mbps  
- Stackable and bridgeable  
- 6" form factor

**MDENWR100**  
*Wireless DSL Cable Router with Four Port 10/100M Fast Ethernet Switch*  
- Built-in NAT Firewall  
- Works with 802.11g and 802.11b wireless devices  
- 6" form factor
MODULES FOR QUICKNETWORK SERIES PANELS

Security

**MDSG100**
Universal Security System Module
- Accepts the following security system boards: VISTA-10, VISTA-15, VISTA-20, First Alert Professional FA130CP, FA148CP, FA168CP
- 12" form factor

**MDSG150**
Universal Security System Module with Locking Cover
- Same features as MDSG100 except with locking cover

**MDSC100**
Non-Locking Cover for Security System
- Requires MDSG100

**MDSC200**
Locking Cover for Security System
- Requires MDSG100

**MDSG400**
Universal Security System Module
- Accepts the following security system boards: VISTA-128BP, VISTA-250BP, First Alert Professional FA1660 and FA1700C
- 12" x 14-1/2" form factor

**MDSG450**
Universal Security System Module with Locking Cover
- Same features as MDSG400 except with locking cover
SuperPro Distribution Panels

SUPERPRO SERIES

Perfect for high-end custom homes and light commercial applications, these top-of-the-line surface mount panels provide the highest level of expansion and customization capabilities and make reconfiguration a snap for homeowners. It is an ideal expansion device for existing QuickNetwork panels.

DISTRIBUTION PANELS FOR SUPERPRO SERIES

SP0800
SuperPro 8 Surface Mount Panel
- Services up to eight zones
- Four populated zones, including a total of eight RJ 45 telephone connections (Cat5e), eight coax TV connections (RG6), eight blanks (for fiber optic, Cat5e, or RG6 expansion), four Cat5 patch cords, and four RG6-rated coax patch cords
- Also includes: four unpopulated zones and eight expansion slots for TELCO, video and other optional hubs
- Dimensions: 18" W x 27" H x 6" D
- 24" optional cover
ALSO AVAILABLE: SP0800R, SuperPro 8 Semi-Flush Mount Panel. Same features as SP08, except in a 2.5" deep semi-flush mount housing

SP1600
SuperPro16 Surface Mount Panel
- Services up to 16 zones
- Eight populated zones, including a total of 16 RJ 45 telephone connections (Cat5e), 16 coax TV connections (RG6), 16 blanks (for fiber optic, Cat5e, or RG6 expansion), eight Cat5 patch cords, and eight RG6-rated coax patch cords
- Also includes: eight unpopulated zones, and 11 expansion slots for TELCO, video and other optional hubs
- Dimensions: 18" W x 39" H x 6" D
- 36" optional cover
ALSO AVAILABLE: SP1600R, SuperPro 16 Semi-Flush Mount Panel. Same features as SP16, except in a 2.5" deep semi-flush mount housing
SP2400
SuperPro 24 Surface Mount Panel
• Services up to 24 zones
• 12 populated zones, including a total of 24 RJ 45 telephone connections (Cat5e), 24 coax TV connections (RG6), 24 blanks (for fiber optic, Cat5e, or RG6 expansion), 12 Cat5 patch cords, and 12 RG6-rated coax patch cords
• Also includes: 12 unpopulated zones, and 14 expansion slots for TELCO, video and other optional hubs
• Dimensions: 18" W x 51" H x 6" D
• 48" optional cover

SP3200
SuperPro 32 Surface Mount Panel
• Services up to 32 zones
• 16 populated zones, including a total of 32 RJ 45 telephone connections (Cat5e), 32 coax TV connections (RG6), 32 blanks (for fiber optic, Cat5e, or RG6 expansion), 16 Cat5 patch cords, and 16 RG6-rated coax patch cords
• Also includes: 16 unpopulated zones, and 12 expansion slots for TELCO, video and other optional hubs
• Dimensions: 18" W x 51" H x 6" D
• 48" optional cover


**Hubs for SuperPro Series Panels**

**Telephone**

**HBT124P**

12 Port, Four Line Telephone Hub

- 12 RJ 45 ports (Cat5 rated) support four incoming telephone lines
- Includes two Amphenol connectors for interface with telephone Key System Unit (KSU) or PBX
- Amphenol connector includes a shorting block for compatibility with Plain Old Telephone Service (POTS) lines
- Includes surge suppression and one RJ 31X port

**HBT122P**

12 Port, Two Line Telephone Hub

- 12 location, two line, RJ11 harmonica-style twisted pair hub is used for connecting and distributing voice
- 12 RJ11 ports support two incoming telephone lines
- Includes Amphenol or TELCO connector for interface with telephone Key System Unit (KSU) or PBX
- Amphenol connector includes a shorting block for compatibility with Plain Old Telephone Service (POTS) lines
- Includes surge suppression

**HBT083P**

Eight Port, Three Line Telephone Hub

- Eight location, three line, RJ11 harmonica-style twisted pair hub is designed to work with Panasonic Key Service Units (KSUs) that require a three-pair connection rather than a two-pair connection
- Note: a shortening block is not provided and this hub cannot be used with Plain Old Telephone Service (POTS)
**HUBS FOR SUPERPRO SERIES PANELS**

### Video

**HBC408B**
5x8 Coax Hub
- Five in, eight out, with 16 dB bi-directional amplifier and built-in surge suppression
- One direct and four inputs for modulating signals
- One antenna or CATV input
- Four modulated inputs

**HBC412B**
5x12 Coax Hub
- Five in, 12 out, with 16 dB bi-directional amplifier and built-in surge suppression
- One direct and four inputs for modulated signals
- One antenna or CATV input
- Four modulated inputs

**HBC416B**
5x16 Coax Hub
- Five in, 16 out, with 16 dB bi-directional amplifier and built-in surge suppression
- One direct and four inputs for modulated signals
- One antenna or CATV input
- Four modulated inputs

**HBDS4**
Four Location DBS Distribution Hub
- Provides distribution of one dual LNB DBS digital satellite dish signal to four locations
- Provides DBS distribution through a single coax line and doesn’t require modulation
- Each TV location must be connected to a separate DBS receiver where desired
- DirectTV only (does not support Dish Network 500)

**HBMD03**
Three Channel Modulator Hub
- Used for creating in-home TV channels for viewing from any TV in the home
- Signals from three different audio/video sources. For example, TV, VCR, DVD, DBS, satellite TV and security cameras may be identified and displayed by any TV

**HBDS8202**
Eight Location Digital SATV Distribution Hub
- Supports dual LNB systems and DirectTV multi-satellite systems
- DirectTV only (does not support Dish Network 500)
HUBS FOR SUPERPRO SERIES PANELS

Data

**HBEN105**
Five Port, 10/100 Base-T Ethernet Switch Hub
- Used for creating a Local Area Network (LAN) by connecting up to five computers, printers, scanners, fax machines, etc.
- Supports data transfer speeds up to 100 Mbps
- Stackable and bridgeable
- Hub format

**HBEN108**
Eight Port, 10/100 Base-T Ethernet Switch
- Used for creating a Local Area Network (LAN) by connecting up to eight computers, printers, scanners, fax machines, etc.
- Supports data transfer speeds up to 100 Mbps
- Stackable and bridgeable
- Hub format

**HBENWR100**
Wireless DSL Cable Router with Four Port 10/100M Fast Ethernet Switch
- Built-in NAT Firewall
- Works with 802.11g and 802.11b wireless devices
- Hub format
HUBS FOR SUPERPRO SERIES PANELS

Audio

HBADZ600
A-BUS® 6 Zone Audio
• Use in SuperPro distribution panels
• Distributes Cat5 audio to six locations
• Can be chained to additional hubs for more locations
• 12" form factor
• Hub format

HBAD8
Eight Location Audio Distribution Hub
• Allows an audio signal to be distributed to eight stereo locations
• Impedance matched
• Hub format

A-BUS Multi-source/Multi-zone Distributed Audio

HBADZHMS
A-BUS MS/MZ Audio Hub for SuperPro Panel
• A-BUS Multi-source/Multi-zone audio distribution hub - one required per installation
• Any of up to 4 sources can be heard in up to 4 zones (2 different pairs of speakers in each zone)
• Includes AC power transformer
• Hub format

HBADZHMSE A-BUS MS/MZ Expansion Audio Hub for SuperPro Panel
• Optional A-BUS Multi-source/Multi-zone audio distribution hub - provides capability of communicating with additional rooms
• Expand an additional 4 zones (2 different pairs of speakers in each zone)
• Includes AC power transformer
• Hub format

Intercom

HBADZICH A-BUS Intercom Hub for SuperPro Network Panels
• A-BUS Intercom Hub mounted in SuperPro Panel Hub Housing
• Capable of connecting 8 number of rooms with any mixture of either AUDZICRM or AUDZICMC
• Connect up to 8 rooms per hub
• Connect and control up to 2 doors per hub
• Includes AC power transformer
• Hub format
HBES
Expansion Shelf
• Metal shelf fits in two expansion slots in any SuperPro panel and allows third party products (i.e., amplifiers, modulators, power supplies, etc.) to be installed in the panel

HBSI
Service Input Hub
• Gateway for connecting outside telecommunication and network services
• Includes configuration of:
  - four RG6 coax connectors
    (for TV, VCR, CATV, DBS or satellite TV)
  - two Cat5e connectors
    (for telephones, fax, ISDN, etc.)
  - two ST Fiber optic connectors
  - four expansion slots
PANEL INSERTS (SOLD IN PACKS OF 10)

INSBLPY
(for distribution panel)
• 10 pack of yellow blanks

ALSO AVAILABLE:
INSBLPR 10 pack of red blanks
INSBLPB 10 pack of blue blanks
INSBLPW 10 pack of white blanks

INSBZ5N *
(for distribution panel)
• 10 pack of Cat 5/6 blue bezels

ALSO AVAILABLE:
INSBZ5O * 10 pack of Cat 5/6 orange bezels
INSBZ5W * 10 pack of Cat 5/6 white bezels
INSBZ5R * 10 pack of red Cat 5/6 bezels
INSBZ5Y * 10 pack of Cat 5/6 yellow bezels

* may use any Honeywell faceplate insert

INSCXP
(for distribution panel)
• 10 pack of RG6 coax connectors

INSFOP
(for distribution panel)
• 10 pack of ST Fiber optic connectors

INSC 5P
(for distribution panel)
• 10 pack of RJ 45, Cat5e rated connectors (shown in blue bezel)

QNS100 QuickNetwork Cover Clips, 10 pack
QNS150 QuickNetwork Cover Screws, 10 pack
QNS200 QuickNetwork Rivet Package Grommet/Plunger, 10 pack
RIV100 Quick Network Rivet Package Grommet/Plunger, 20 pack
QNS50 SuperPro 6/32 Truss Head Screws, 10 pack
QNS250 SuperPro 10/32 Truss Head Screws, 10 pack
## HOUSINGS, PANELS & COVERS

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>QN6</td>
<td>QuickNetwork Install Panels and Cover, plastic, 6&quot;</td>
</tr>
<tr>
<td>QN18</td>
<td>QuickNetwork Install Panels with 110V Power and Cover, metal, 18&quot;</td>
</tr>
<tr>
<td>QN24</td>
<td>QuickNetwork Install Panels with 110V Power and Cover, metal, 24&quot;</td>
</tr>
<tr>
<td>QN36</td>
<td>QuickNetwork Install Panels with 110V Power and Cover, metal, 24&quot;</td>
</tr>
<tr>
<td>QN48</td>
<td>QuickNetwork Install Panels with 110V Power and Cover, metal, 36&quot;</td>
</tr>
<tr>
<td>QNIC18</td>
<td>QuickNetwork Install Panels with 110V Power, 18&quot;</td>
</tr>
<tr>
<td>QNIC24</td>
<td>QuickNetwork Install Panels with 110V Power, 24&quot;</td>
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<tr>
<td>QNIC36</td>
<td>QuickNetwork Install Panels with 110V Power, 36&quot;</td>
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<tr>
<td>QNIC48</td>
<td>QuickNetwork Install Panels with 110V Power, 48&quot;</td>
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<tr>
<td>QNCC18</td>
<td>QuickNetwork Cover, for QNIC18, metal</td>
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<tr>
<td>QNCC24</td>
<td>QuickNetwork Cover, for QNIC24, metal</td>
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<tr>
<td>QNCC36</td>
<td>Quick Network Cover, for QNIC36, metal</td>
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<tr>
<td>QNCC48</td>
<td>Quick Network Cover, for QNIC48, metal</td>
</tr>
<tr>
<td>QNBVL18</td>
<td>Hinged Locking Door System for QN18</td>
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<tr>
<td>QNBVL24</td>
<td>Hinged Locking Door System for QN24</td>
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<tr>
<td>QNBVL36</td>
<td>Hinged Locking Door System for QN36</td>
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<tr>
<td>QNBVL48</td>
<td>Hinged Locking Door System for QN48</td>
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<tr>
<td>CV-SP08</td>
<td>Locking Cover, for SP08 or SP08R Distribution Panel</td>
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<tr>
<td>CV-SP16</td>
<td>Locking Cover, for SP16 or SP16R Distribution Panel</td>
</tr>
<tr>
<td>CV-SP24/32</td>
<td>Locking Cover, for SP24, SP24R, SP32, or SP32R Panel</td>
</tr>
<tr>
<td>Faceplates</td>
<td>One Port Faceplate</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>AREC 201W 10 pack, White</td>
</tr>
<tr>
<td></td>
<td>AREC 201A 10 pack, Almond</td>
</tr>
<tr>
<td></td>
<td>AREC 201I 10 pack, Ivory</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Two Port Faceplate</td>
<td>AREC 202W 10 pack, White</td>
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<tr>
<td></td>
<td>AREC 202A 10 pack, Almond</td>
</tr>
<tr>
<td></td>
<td>AREC 202I 10 pack, Ivory</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Three Port Faceplate</td>
<td>AREC 203W 10 pack, White</td>
</tr>
<tr>
<td></td>
<td>AREC 203A 10 pack, Almond</td>
</tr>
<tr>
<td></td>
<td>AREC 203I 10 pack, Ivory</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Four Port Faceplate</td>
<td>AREC 204W 10 pack, White</td>
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<tr>
<td></td>
<td>AREC 204A 10 pack, Almond</td>
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<tr>
<td></td>
<td>AREC 204I 10 pack, Ivory</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Six Port Faceplate</td>
<td>AREC 206W 10 pack, White</td>
</tr>
<tr>
<td></td>
<td>AREC 206A 10 pack, Almond</td>
</tr>
<tr>
<td></td>
<td>AREC 206I 10 pack, Ivory</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
* Large faceplates are approx .25” taller and wider than standard faceplates
## Faceplates

### One Port Keystone Insert Decora® Style
- **KID1PW**: 10 pack, White
- **KID1PA**: 10 pack, Almond
- **KID1PI**: 10 pack, Ivory

### Two Port Keystone Insert Decora® Style
- **KID2PW**: 10 pack, White
- **KID2PA**: 10 pack, Almond
- **KID2PI**: 10 pack, Ivory

### Three Port Keystone Insert Decora® Style
- **KID3PW**: 10 pack, White
- **KID3PA**: 10 pack, Almond
- **KID3PI**: 10 pack, Ivory

### Four Port Keystone Insert Decora® Style
- **KID4PW**: 10 pack, White
- **KID4PA**: 10 pack, Almond
- **KID4PI**: 10 pack, Ivory

### Six Port Keystone Insert Decora® Style
- **KID6PW**: 10 pack, White
- **KID6PA**: 10 pack, Almond
- **KID6PI**: 10 pack, Ivory

### One Gang Decora® Faceplate
- **1GDFW**: 10 pack, White
- **1GDFA**: 10 pack, Almond
- **1GDFI**: 10 pack, Ivory

### Two Gang Decora® Faceplate
- **2GDFW**: 10 pack, White
- **2GDFA**: 10 pack, Almond
- **2GDFI**: 10 pack, Ivory

### Three Gang Decora® Faceplate
- **3GDFW**: 10 pack, White
- **3GDFA**: 10 pack, Almond
- **3GDFI**: 10 pack, Ivory

### Blank Faceplate
- **OPLFPW**: Single gang blank cover, White
- **OPLFPI**: Single gang blank cover, Ivory
- **OPLFPA**: Single gang blank cover, Almond
### Faceplates

| WPVOIPW | 10 pack, White |
| WPVOIPA | 10 pack, Almond |
| WPVOIP1 | 10 pack, Ivory |

**One Port Large Size Wallplate with 1RJ 11 (Cat 3)**

| 1PLWPRJW | 10 pack, White |
| 1PLWPRJA | 10 pack, Almond |
| 1PLWPRJI | 10 pack, Ivory |

**One Port Large Size Wallplate with 1F81 (RG 6)**

| 1PLWPFW | 10 pack, White |
| 1PLWPFA | 10 pack, Almond |
| 1PLWPFI | 10 pack, Ivory |

**Cat 3 Insert**

| AINSC3RW | RJ 11 (Cat 3) Insert, 10 pack, White |
| AINSC3RA | RJ 11 (Cat 3) Insert, 10 pack, Almond |
| AINSC3RI | RJ 11 (Cat 3) Insert, 10 pack, Ivory |

**Cat 5e Insert**

| AINSC5RW | 10 pack, White |
| AINSC5RA | 10 pack, Almond |
| AINSC5RI | 10 pack, Ivory |
| AINSC5RB | 10 pack, Blue |

**Cat 6 Insert**

| AINSC6RW | 10 pack, White |
| AINSC6RA | 10 pack, Almond |
| AINSC6RI | 10 pack, Ivory |

**RG 6 Coax Insert**

| AINSCXRW | 10 pack, White |
| AINSCXRA | 10 pack, Almond |
| AINSCXRI | 10 pack, Ivory |
**Blank Insert**

- **AINSBLRW** 10 pack, White
- **AINSBLRA** 10 pack, Almond
- **AINSBLRI** 10 pack, Ivory

**BNC Insert**

- **BNCW** 10 pack, White
- **BNCA** 10 pack, Almond
- **BNCI** 10 pack, Ivory

**Binding Post Insert Black**

- **BPIBW** 10 pack, White
- **BPIBA** 10 pack, Almond
- **BPIBI** 10 pack, Ivory

**Binding Post Insert Red**

- **BPIRW** 10 pack, White
- **BPIRA** 10 pack, Almond
- **BPIRI** 10 pack, Ivory

**S-Video Insert to IDC**

- **SVIDIDCW** 10 pack, White
- **SVIDIDCA** 10 pack, Almond
- **SVIDIDCI** 10 pack, Ivory

**Multimode Fiber Optic Insert**

- **AINSFOPW** 10 pack, White
- **AINSFOPA** 10 pack, Almond
- **AINSFOPI** 10 pack, Ivory
<table>
<thead>
<tr>
<th>Inserts</th>
<th></th>
<th></th>
<th>10 pack</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F-Connector 90 Degree Elbow</td>
<td>FCON90</td>
<td>10 pack</td>
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<tr>
<td>RCA Insert to Red IDC</td>
<td>RCARIDCW</td>
<td>10 pack, White</td>
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<tr>
<td>RCA Insert to Yellow IDC</td>
<td>RCAYIDCW</td>
<td>10 pack, White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCA Insert to White IDC</td>
<td>RCAWIDCW</td>
<td>10 pack, White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCA Bulkhead Insert Red</td>
<td>RCARBHW</td>
<td>10 pack, White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCA Bulkhead Insert Yellow</td>
<td>RCAYBHW</td>
<td>10 pack, White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCA Bulkhead Insert White</td>
<td>RCAWBHW</td>
<td>10 pack, White</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
INTERNET CONTROL MODULE FOR VISTA SECURITY PANELS

Internet Connection Module for VISTA

How it works

The new VISTAICM provides easy and affordable control via an IP-based web interface, enabling your customers to access their security, HVAC, lighting controls and other devices from anywhere in the world.

Features include:

**Enhanced Control**
- Customers can control their VISTA security systems and select Honeywell thermostats from a web browser on a PC, web tablet, wireless PDA or laptop.
- ICMs work together, such that in the event of a fire, the security system can send a signal to an HVAC ICM to shut down airflow to help stop the spread of smoke.

**Messaging**
- Customers can receive notification of system events via text messaging or e-mail.

**Cameras**
- With some additional equipment, homeowners can view IP cameras from any Internet connection.

**Lighting**
- ICM modules are available for Lutron as well as popular lighting solutions such as UPB, Z-Wave and Insteon systems. Again, the ICM devices work together to offer very sophisticated automation solutions which are easy to install and incredibly simple to use!

Part# VISTAICM – Internet Control Module for Vista

ICM Connectivity Packages with Thermostat

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIC MHVAC</td>
<td>VisionPro IAQ, VisionPro Serial Adapter, ICM for VISTA &amp; Energy ICM</td>
</tr>
</tbody>
</table>

ICM Starter Kit (ICMSTRKT)

**Consist of Kit Part# ICMSTRKT**

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vista ICM</td>
</tr>
<tr>
<td>VISTA 20P PCB (SIA version)</td>
</tr>
<tr>
<td>Keypad</td>
</tr>
<tr>
<td>Transformer</td>
</tr>
<tr>
<td>VisionPro IAQ &amp; EIM</td>
</tr>
<tr>
<td>Simply Automated Lighting Kit</td>
</tr>
<tr>
<td>In2 Networks Lighting ICM</td>
</tr>
<tr>
<td>ICM for HVAC</td>
</tr>
</tbody>
</table>

For more information, call: 1-800-467-5875
ENTERTAINMENT SYSTEM COMPONENTS

Audio

AUD75VC/AUD75VCA
75 Watt Volume Control
• Non impedance
• Available in white or almond

AUDW65
In-Wall Speakers
• Set of two
• .75" Tweeter
• 6.5" Poly Woofer
• Surround Sound capable

AUDC65
In-Ceiling Speakers
• Set of two
• 1" Swivel Tweeter
• 6.5" Poly Woofer
• Surround Sound capable

AUDO55B
Outdoor Speakers
• Set of two
• 5.5" Poly Woofer
• .75" Tweeter
• Surround Sound capable
• Color: Black

ALSO AVAILABLE: AUDO55W – Color: White
ENTERTAINMENT SYSTEM COMPONENTS

Audio

AUDZ200 (W/A)
A-BUS® Volume Control Module
• Available in white and almond
• Décor face plate not included

AUDZ300 (W/A)
A-BUS® Volume Control Module with IR
• Available in white and almond
• Décor face plate not included

AUDZ400 (W/A)
A-BUS® Multiple Input Interface Module
• Four RCA stereo inputs
• Four IR emitter inputs
• Four loop out connectors
• IR pass thru

AUDZ420 (W/A)
A-BUS® Push Button Volume Control with IR and Remote
• Touch button or remote control of room volume included
• IR repeating to control source functions with that source’s remote control
• Red LED for IR talkback and On Status
• Fits standard Decora® wall plates
• Drives one pair of speakers (min. sensitivity 88dB)
• Available in white and almond

AUDZ500
A-BUS® Interface Module

AUDZ700 (W/A)
A-BUS® Local Input Module
• Available in white and almond
• Décor face plate not included
A-BUS INTERCOM SYSTEM

**AUDZICMC:** A-BUS Intercom Room Unit
- 2-gang box installation

**AUDZICRM:** A-BUS Intercom Control Center
- 3-gang box installation
- 8-room selectable control

**AUDZFDS:** A-BUS Intercom Entry Communicator
- Weatherproof front door Intercom Station
MULTI-SOURCE/MULTI-ZONE SYSTEM

AUDZ45:  **MSMZ Keypad**
- 4 selector Multi-source/Multi-zone wall switch
- Allows for independent selection of up to 4 unique audio sources for in-room playback

AUDZ41RC:  **Large Learning Remote**
- All purpose remote for control of TV, Stereo, etc. in addition to specialized remote control buttons

AUDZPS40:  **Power Brick & AC Cord**
- Extra power supply and AC cord - fits all powered products

AUDZBX75:  **4 Source Input Wallplates**
- Typically installed behind home theater equipment; this is a multi-input wall jack that connects back to the multisource multizone input hub mounted in the structured panel
- Provides clean, finished installation without extra wires laying around
### PATCH CORDS

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCT5BL08</td>
<td>Ethernet Patch Cord</td>
<td>four pair, Cat5e, 8&quot;</td>
</tr>
<tr>
<td>PCT5BL24</td>
<td>Ethernet Patch Cord</td>
<td>four pair, Cat5e, 24&quot;</td>
</tr>
<tr>
<td>PCT5BL36</td>
<td>Ethernet Patch Cord</td>
<td>four pair, Cat5e, 36&quot;</td>
</tr>
<tr>
<td>PCT5BL48</td>
<td>Ethernet Patch Cord</td>
<td>four pair, Cat5e, 48&quot;</td>
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<tr>
<td>PCT5OR08</td>
<td>Ethernet Patch Cord</td>
<td>four pair, Cat5e, Orange, 8&quot;</td>
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<tr>
<td>PCT5OR24</td>
<td>Ethernet Patch Cord</td>
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<tr>
<td>PCT5OR36</td>
<td>Ethernet Patch Cord</td>
<td>four pair, Cat5e, Orange, 36&quot;</td>
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<tr>
<td>PCT5OR48</td>
<td>Ethernet Patch Cord</td>
<td>four pair, Cat5e, Orange, 48&quot;</td>
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<tr>
<td>PCCXM</td>
<td>Mini Digital Cable</td>
<td>75 Ohm-rated, 8&quot;</td>
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<tr>
<td>PCCXM1</td>
<td>Mini Digital Cable</td>
<td>75 Ohm-rated, 14&quot;</td>
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<tr>
<td>PCCXM2</td>
<td>Mini Digital Cable</td>
<td>75 Ohm-rated, 24&quot;</td>
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<tr>
<td>PCCXM3</td>
<td>Mini Digital Cable</td>
<td>75 Ohm-rated, 36&quot;</td>
</tr>
<tr>
<td>PCCXM4</td>
<td>Mini Digital Cable</td>
<td>75 Ohm-rated, 48&quot;</td>
</tr>
<tr>
<td>PCT3BL08</td>
<td>Telephone Patch Cord</td>
<td>two pair, Cat3, 8&quot;</td>
</tr>
<tr>
<td>PCT3BL24</td>
<td>Telephone Patch Cord</td>
<td>two pair, Cat3, 24&quot;</td>
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<td>PCT3BL36</td>
<td>Telephone Patch Cord</td>
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</tr>
<tr>
<td>PCT3BL48</td>
<td>Telephone Patch Cord</td>
<td>two pair, Cat3, 48&quot;</td>
</tr>
</tbody>
</table>

**Patch Cords**
LBO1
Telephone Line Breakout Module
• Connects up to four devices (phone, fax, DSL or cable modem, etc.) to a single Cat5 jack with one pass through connection

MOD101
Single Channel Modulator
• Used for creating an in-home TV channel for viewing from any TV in the home
• A signal from audio/video sources such as TV, VCR, DVD, DBS, satellite TV and security cameras may be identified and displayed by any TV

MOD301
Triple Channel Modulator
• Attach to a home entertainment center for creating an in-home TV channel for viewing from any TV in the home
• A single signal from audio/video sources such as TV, VCR, DVD, or satellite TV may be identified and displayed by any TV
• For multi-room video distribution, a separate Triple Channel Modulator (part no. MDMD or HBMD) must be installed in the distribution panel

AN15610-H 6’ Extension Cable SMA Connectors
AN15620-H Omnidirectional antenna with SMA connector
AN15640-H 3M Extension cable for AN15620-H
AN15660-H 8M Extension cable for AN15620-H
10BASE-2 — A variant of Ethernet, connecting stations via thin coaxial cable; maximum cable distance in one non-repeated segment is 185 meters.

10BASE-FL — is the most commonly used 10BASE-F specification of Ethernet over optical fiber. It replaces the original FOIRL specification, but retains compatibility with FOIRL-based equipment. Maximum segment length values 2000 meters. Mixing it with FOIRL equipment, maximum segment length reduces to FOIRL's 1000 meters.

10BASE-T — supports Ethernet’s 10 Mbps transmission speed using Category 5, 5e, 6 Ethernet cable.

100BASE-FX — is a version of Fast Ethernet over optical fiber. It uses a 1300 nm near-infrared (NIR) light wavelength transmitted via two strands of multi-mode optical fiber, one for receive (RX) and the other for transmit (TX). Maximum length is 400 meters (1,310 ft) for half-duplex connections (to ensure collisions are detected) or 2 kilometers (6,600 ft) for full-duplex. 100BASE-FX uses the same 4B5B encoding and NRZI line code that 100BASE-TX does. 100BASE-FX should use SC, ST, or MIC connectors with SC being the preferred option.

100BASE-TX — is the predominant form of Fast Ethernet, and runs over two pairs of category 5 or above cable (a typical category 5 cable contains 4 pairs and can therefore support two 100BASE-TX links).

1000BASE-LX — is a fiber optic gigabit Ethernet standard, using a long wavelength laser. Signaling speed 1.25±100 ppm GBd, Wavelength 1270 to 1355 nm, RMS spectral width (max) 4 nm. Typically, GbE lasers will be specified as having a 1300 or 1310 nm wavelength. 1000BASE-LX is specified to work over a distance of up to 2 km over 9 µm single-mode fiber. In practice it will often operate correctly over a much greater distance. Many manufacturers will guarantee operation up to 10 or 20 km, provided that their equipment is used at both ends of the link. 1000BASE-LX can also run over multi-mode fiber with a maximum segment length of 550 m. For any link distance greater than 300 m, the use of a special launch conditioning patch cord may be required. This launches the laser at a precise offset from the center of the fiber which causes it to spread across the diameter of the fiber core, reducing the effect known as differential mode delay which occurs when the laser couples onto only a small number of available modes in multi-mode fiber. Two strands of fiber are needed, one for each direction of the communication.

1000BASE-SX — is a fiber optic gigabit Ethernet standard. It operates over multi-mode fiber using a 850 nanometer, near infrared (NIR) light wavelength. The standard specifies a distance capability between endpoints of 220 m over 62.5/125 µm fiber although in practice, with good quality fiber and terminations, 1000BASE-SX will usually work over significantly longer distances. Modern 50/125 µm fibers can reliably extend the signal to 500 m or more. This standard is highly popular for intra-building links in large office buildings, collocation facilities and carrier neutral internet exchanges. Typical optical power parameters of SX
interface: maximum mean output power = -5 dB; stressed receiver sensitivity = -14 dB.

1000BASE-T — (also known as IEEE 802.3ab) is a standard for gigabit Ethernet over copper wiring. It requires, at a minimum, Category 5 cable, but Category 5e (“Category 5 enhanced”) and Category 6 cable may also be used and are often recommended.

A

Access Point — is a device that connects wireless communication devices together to form a wireless network. The WAP usually connects to a wired network, and can relay data between wireless devices and wired devices. Several WAPs can link together to form a larger network that allows “roaming”. (In contrast, a network where the client devices manage themselves - without the need for any access points - becomes an ad-hoc network.) WAPs have IP addresses for configuration.

ACR — (Attenuation to Crosstalk Ratio) is the ratio of the attenuated signal to near-end crosstalk (NEXT). It’s a factor in determining how far a signal can be transmitted in any given medium.

Adapter card — See "NIC".

Amplitude — In communications, the distance between the highest and lowest points in a wave. The amplitude controls the strength, or volume, of the signal.

ANSI — (American National Standards Institute) is a private nonprofit organization that oversees the development of voluntary consensus standards for products, services, processes, systems, and personnel in the United States. The organization also coordinates U.S. standards with international standards so that American products can be used worldwide. For example, standards make sure that people who own cameras can find the film they need for them anywhere around the globe.

Attenuation — is the reduction in amplitude and intensity of a signal. Signals may be attenuated exponentially by transmission through a medium, in which case attenuation is usually reported in dB with respect to distance traveled through the medium. Attenuation can also be understood to be the opposite of amplification.

AUI — (Attachment Unit Interface) is a 15 pin connection that provides a path between a node’s Ethernet interface and the Medium Attachment Unit (MAU), sometimes known as a transceiver.

Auto-Negotiation (N-Way) — A mechanism that controls the data when a connection is established to a network device. It automatically switches to the correct technology in the following sequence:

1) 100Base-TX, Full Duplex
2) 100Base-T4
3) 100Base-TX
4) 10Base-T, Full Duplex
5) 10Base-T
With the following benefits:
1) Automatic Connection
2) Backward Compatibility
3) Network Protection
4) Technology Extension
5) Path Upgrade
6) Management Interface
7) Proprietary Extension

**AWG (American Wire Gauge)** — also known as the "Brown and Sharpe" wire gauge, is used in the United States and other countries as a standard method of denoting wire diameter, especially for nonferrous, electrically conducting wire.

**B**

**Backbone** — A backbone network provides a path for the exchange of information between different LANs or sub networks. A backbone can tie together diverse networks in the same building, in different buildings in a campus environment, or over wide areas. Normally, the backbone's capacity is greater than the networks connected to it.

**Balance** — Balance can mean the amount of signal from each channel reproduced in a stereo audio recording. Typically, a balance control will have 0 dB of gain in the center position for both channels, and attenuate one channel as the control is turned, leaving the other channel at 0 dB.

**Balanced Signal Transmission** — Two voltages, equal and opposite in phase with respect to each other, across the conductors of a twisted-pair

**Balun** — Balanced/unbalanced. An impedance matching device used to connect balanced twisted pair cabling with unbalanced coaxial cable.

**Bandwidth** — (1) The range of signal frequencies that can be carried on a communications channel. The capacity of a channel is measured in cycles per second, or hertz (Hz), between the highest and lowest frequencies. (2) Commonly, the carrying capacity of a digital translation facility, measured in bits per second (bps).

**Baseband** — A technique whereby digital input is directly applied to transmission media without the intervention of a modulating device. Baseband is generally applied in an environment with high bandwidth over a short distance. It is generally considered easier and more cost-effective than broadband. Ethernet, token ring, FDDI, and ATM generally use baseband.

**Bend Loss** — Increased attenuation in a fiber that results from the fibers being bent, or from minute distortions within the fiber.

**Bit** — A contraction of Binary Digit. The smallest unit of digital information.
Bit Rate (BR) — The rate of data throughput on the medium in bits per second. Ethernet specifies 10 million bits per second.

Bit Time — The duration of one bit symbol (1/BR). Ethernet specifies a bit time of 100 ns.

BNC Connector — A specific type of connector used for coaxial RG58 cable connection.

Bonding — The permanent joining of metallic parts to form an electrically conductive path that will assure electrical continuity and the capacity to conduct safely any current likely to be imposed on it.

bps (Bits per second) — The amount of data transferred in a second.

Bridged Tap — The multiple appearances of the same cable pair or fiber at several distribution points.

Bridging — A means of providing through connections between conductors or pairs that are terminated on connecting blocks. These through connections are commonly provided by means of individual metallic "bridging" clips or multiple "bridging" clips that are housed in a plastic insulator.

Broadband — Characteristic of any network that multiplexes multiple, independent carrier signals onto a single cable. This is usually accomplished through frequency division multiplexing. Broadband technology allows several signals to coexist on a single cable; traffic from one signal does not interfere with traffic from another, since data is transmitted on a different frequency. Cable television uses broadband.

Buffer — A block of storage used to hold a portion of an information packet.

Bundled Cable — An assembly of two or more cables continuously bound together to form a single unit prior to installation.

Bus (linear bus) — A network topology in which all computers are connected by a single length of cabling with a terminator at each end.

Bus topology — A network structure in which the signals sent by one device are received by all other devices. Each device then selects those transmissions addressed to it based on address information contained in the transmission.

Cabling — A combination of cables, wire, cords and connecting hardware used in the telecommunications infrastructure.

Campus Backbone — Cabling between buildings that share telecommunications facilities. Carrier Sense Multiple Access with Collision Detection (CSMA/CD) The LAN access method used in Ethernet. When a device wants to gain access
to the network, it checks to see if the network is quiet (senses the carrier). If it is not, it waits a random amount of time before retrying. If the network is quiet and two devices access the line at exactly the same time, their signals collide. When the collision is detected, they both back off and each wait a random amount of time before retrying.

**Channel** — The end-to-end transmission path connecting any two points at which application specific equipment is connected.

**Cladding** — In fiber-optic cabling, a layer of glass that surrounds the inner core and reflects light back into the core.

**Class I Repeater** — Class I Repeaters operate by translating line signal on the incoming port to a digital signal. This allows the translation between different types of Fast Ethernet like 100Base-TX and 100Base-FX. Class I repeaters introduce delays when performing this conversion so that only one repeater can be put in a single Fast Ethernet LAN segment.

**Class II Repeater** — Class II Repeaters immediately repeat the signal on the incoming port to all the ports on the repeater. This quick movement of the data introduces very little delay across the repeater, thus two class II repeaters are allowed per Fast Ethernet segment.

**Coaxial Cable (Coax)** — Formerly common in Ethernet networks, coax comes in various types with different transmission characteristics. It is copper-based, with an inner conductor surrounded by an outer conductor, with insulation between the two, insulation around the outer conductor, and a jacket. Coax is less flexible than twisted pair cable, but more resistant to EMI and physical breakage.

**Collision** — Concurrent Ethernet transmissions from two or more devices on the same segment. A collision is sensed by the transmitting station as an over-voltage condition causing the station to retransmit after waiting a random amount of time.

**Collision Domain** — Single CSMA/CD LAN segment.

**Cross-connect** — A facility enabling the termination of cables as well as their interconnection or cross-connection with other cabling or equipment.

**Crosstalk** — The unwanted introduction of signals from one channel or pair to another.

**D**

**Data Communications Equipment (DCE)** — Traditional data communications terminology for the equipment that enables a DTE to communicate over a telephone line or data circuit. The DCE establishes, maintains, and terminates a connection as well as performing the conversions necessary for communications.

**Data Terminal Equipment (DTE)** — Traditional data communications terminology for a device receiving and/or originating data on a network. Typically, a computer or patch panel.
**DCE (Data Circuit-terminating equipment)** — The designation given to equipment such as modems and multiplexers by the Electronic Industry of America (EIA). Differs from DTE (Data Terminal Equipment) in that it transmits data on pin 3 and receives data on pin 2.

**Decibel (dB)** — A logarithmic comparison of power levels defined as ten times the base ten log of the ratio of input power to output power. One tenth of a bel.

**Demarcation Point** — The point inside your building (or on the campus premises) at which the phone company (or other service provider) is no longer responsible for network cabling or service.

**Digital Line** — A data or voice network interconnectivity medium that supports digital signaling.

**DSL (Digital Subscriber Line)** — A method for moving data over regular phone lines. A DSL circuit is much faster than a regular phone connection and uses the same copper premises wires used for regular phone service. A DSL circuit must be configured to connect two specific locations, similar to a leased line. DSL is now a popular alternative to ISDN and leased lines, being faster than ISDN and less costly than traditional leased lines.

**D-Sub connector** — AUI cable use 15-pin D-sub connectors. "D" refers to the shape of the connector shell. Also called miniature D, DB-15, or DIX connectors.

**DTE (Data Terminal Equipment)** — The RS232-C Standard referring to equipment that transmits and/or receives data on a network. This standard typically applies to terminals, PCs, and printers.

**D-Type** — The standard connector used for RS232-C, RS423 and RS422 communication. It is most commonly used in 9, 15, and 25-pin configurations.

**Duplex** — A technique allowing bi-directional, simultaneous transmission along a channel. Generally referred to as full duplex.

**E**

**EIA** — Electronic Industries Association

**EIA 568** — A commercial building wiring standard for voice and data communications developed in 1989 by EIA.

**ELFEXT (Equal Level Far-end Crosstalk)** — Crosstalk measured at the opposite end from which the disturbing signal is transmitted, normalized by the attenuation contribution of the cable or cabling.

**EMI (Electromagnetic Interference)** — Energy generated by outside sources, such as lighting systems and electric motors, which is received by copper data/voice cable and interferes with transmission.
**Ethernet** — The most common layer-two protocol used in LANs. Ethernet is a 10 Mbps CSMA/CD standard originally developed by Xerox to run on thick coaxial cabling. It has evolved and now runs primarily on twisted pair cabling.

**Fast Ethernet** — A version of Ethernet which operates at 100 Mbps. See 100Base-Tx and 100Base-FX.

**FDDI (Fiber Distributed Data Interface)** — A high-speed networking standard. The underlying medium is fiber optics and the topology is a dual-attached, counter-rotating Token Ring. The FDDI protocol has also been adapted to run over traditional copper wires.

**Fiber Channel** — A form of high-speed fiber optic transmission designed primarily for communications between mainframe computers, and between mainframe computers and high-speed peripherals such as disk drives. Sometimes used for general-purpose networking.

**Fiber Optic Cable** — A type of cable consisting of glass or plastic fibers that are used to carry light signals. Fiber optic cable supports transmission speeds up into the 100Mbps.

**Fiber Optic Transmission** — A communications scheme whereby electrical data is converted to light energy and transmitted through optical fibers.

**FOIRL (Fiber Optic Inter Repeater Link)** — A fiber optic signaling method based on the IEEE 802.3 standard governing fiber optics. Allows up to 1,000 meters (3,280 ft.) of multi-mode duplex fiber optic cable in a point-to-point link.

**Frame Relay** — An ITU standard for the interface to a public frame-switching network designed to provide high-speed frame transmission with minimum delay across the wide area. It operates at layer two, and is used in public and private networks, gradually replacing X.25 and leased-line networks.

**Full-Duplex** — A communications method in which a transmission path is provided in each direction, so that each end can simultaneously transmit and receive.

**Gbps** — Billions of bits per second.

**Gigabit Ethernet** — A variant of Ethernet which operates over multi-mode fiber optic cable, single mode fiber optic cable, or unshielded twisted pair, at 1,000 Mbps.

**Half-Duplex** — A communications method in which one end transmits while the other receives, then the process is reversed. This was common in wide area point-
to-multipoint circuits, such as those used in many SNA networks.

**Head End** — A central point in a broadband network that receives signals on one set of frequency bands and retransmits them on another set of frequencies. The head end is viewed as a central hub. Every transmission on a broadband network must go through the head end.

**Horizontal Cabling** — That portion of a building’s cabling system which extends from the wiring closets to the individual workstations, servers, telephones and other devices. This is generally copper twisted pair cable.

**Hot Swapping** — The process of replacing a module without bringing down the system. This process occurs by sliding an active module into or out of a fully powered unit without shutdown.

**Hub** — The center of a star topology network or cabling system. Typically used in older Ethernet and token ring networks. A device connected to a hub receives all the transmissions of all other devices connected to that hub. Hubs are now being replaced in many cases by LAN switches.

**Hybrid cable** — An assembly of two or more cables, of the same or different types or categories, covered by one overall sheath.

**Hybrid Network** — A LAN consisting of a number of topologies and access methods. For example, a network that includes both token ring and Ethernet.

**HZ (Hertz)** — A measure of frequency or bandwidth.

**IDC (Insulation Displacement Contact)** — A type of wire terminating connection in which the insulating jacket is cut by the connector when the wire is inserted.

**IEEE (Institute of Electrical and Electronic Engineers)** — A standards-making body responsible for implementing many standards used in LANs, including the 802.x series.

**IEEE 802.1D** — See "Spanning Tree".

**IEEE 802.1p** — An IEEE standard for prioritizing time-critical flows and filtering multicast traffic to contain traffic in layer-two networks. The 802.1 p header includes three bits for prioritization, allowing for eight priorities to be established.
IEEE 802.1Q — An IEEE standard for providing a virtual LAN capability within a campus network, used in conjunction with IEEE LAN protocols such as Ethernet and token ring.

IEEE 802.2 — A data link standard outlining how basic data connectivity over cable should be set up. Used with the IEEE 802.3, 802.4 and 802.5 standards.

IEEE 802.3 — The IEEE's specification for Ethernet, including both physical cabling and layer-two protocol.

IEEE 802.5 — The IEEE's specification for token ring, including both physical cabling and layer-two protocol.

IEEE 802.10 — The IEEE's protocol for providing security in a metropolitan area network. A variant of 802.10 has sometimes been used to provide a virtual LAN service within a campus network, although this is now generally replaced with 802.1Q.

IEEE 802.11b

Insertion Loss — The amount of the signal that is lost (attenuation) as the signal passes through a connection or interface.

Internetwork — Two or more networks connected by bridges or routers.

Intranet — The use of various Internet tools and protocols, especially HTTP and HTML, within an organization.

K

Kbps — Thousands of bits per second.

L

LAN (Local Area Network) — (1) The network which interconnects all computing devices located within a single end user location; e.g., an integrated token ring / ATM network covering an entire campus. (2) A single layer-two network, which may be connected to other such networks within an end user location; e.g., a single Ethernet segment. To avoid confusing the two definitions, Xylan commonly refers to the former as a "campus" network.

LED — Light Emitting Diode.

Link — An end-to-end transmission path provided by the cabling infrastructure. Cabling links include all cables and connecting Equipment and work area cables are not included as part of a link.

Local Exchange Carrier (LEC) — The local regulated provider of public switched telecommunications services.
MAC (Media Access Control) — The way LAN workstations share access to a transmission medium. MAC-layer protocols include Ethernet, token ring, and FDDI. This MAC has absolutely nothing to do with the Apple Macintosh computer.

MAC Address — The layer-two address of a LAN device.

MAU (Media Access Unit) — In token ring, a hub which interconnects the devices connected to the ring, and in turn connects to other MAUs through Ring-In / Ring-Out connections. Generally, a MAU is not managed via software.

Mbps — Millions of bits per second.

MDF (Main Distribution Frame) — In a structured building wiring system, the central point for cabling throughout the building. Typically, multiple IDFs located in wiring closets connect to a central MDF.

MII (Media Independent Interface) — The standard interface for Fast Ethernet. It is similar to the AUI interface for traditional Ethernet.

MMJ (Modified Modular Jack) — A six-wire modular jack with the locking tab shifted off to the right side. Used in the DEC wiring system.

Modulation — The process of modifying a carrier signal to transmit information.

MT-RJ — A type of dual fiber optic connector: small size, lower cost, more flexible application and easier use. The MT-RJ system supports both Single Mode and Multi-Mode applications, providing a robust solution for both backbone and horizontal needs. About half the size of an SC-based transceiver, the MT-RJ presents significant space savings. The narrower width allows network equipment vendors to achieve the same port density as with modular jacks.

Multi-mode — A form of fiber optic cabling in which light is able to follow multiple paths as it traverses the cable. Less expensive, and with a lower maximum rate and distance, than single mode fiber optic cable.

Multiplex — To transmit two or more messages or message streams on a single channel, typically through the use of frequency-division multiplexing, time division multiplexing, or statistical time division multiplexing.

Multiplexer — A device used for division of a transmission facility into two or more subchannels, either by splitting the frequency band into narrower bands or by allotting a common channel to several different transmitting devices one at a time. Also known as a mux.

NEXT (Near End Crosstalk) — Signal distortion as a result of signal coupling from one pair to another at various frequencies.
Network — A number of interconnected systems that, typically, exchange information with one another and share resources that may be distributed among the systems.

NIC (Network Interface Card) — A physical plug-in module which goes into a workstation or server and provides the connection to a network.

Node — Any network device (such as a server, workstation, or router) that can communicate across the network.

Noise — A low-voltage, low-current, high-frequency signal that interferes with normal network transmissions, often data.

N-Way — See "Auto-Negotiation".

O P

Parallel Detection — The method of establishing a link between auto-negotiation and non-negotiation devices.

Patch Cord — The connecting cord between the terminal device and the drop.

Patch Panel — Connecting hardware that typically provides means to connect horizontal or backbone cables to an arrangement of fixed connectors that may be accessed using patch cords or equipment cords to form cross-connections or interconnections.

Phase — The amplitude of a cyclic signal at a specific point in time.

Plant — The cables that connect computers together in a LAN.

Plenum — A compartment or chamber to which one or more air ducts are connected and that forms part of the air distribution system.

Port — An interface of a computer or other transmission device that acts as an input and/or output point.

POTS — Plain Old Telephone System.

Propagation Delay — The amount of time that passes between when a signal is transmitted and when it is received at the opposite end of a cable or cabling.

Protocols — The specifications that define procedures used by computers when they transmit and receive data.

Punch Down — A method for securing wire to a quick clip in which the insulated wire is placed in the terminal groove and pushed down with a special tool.

PVC (Poly-vinyl Chloride) — The material most commonly used for the insulation and jacketing of cable.
Return Loss — Noise or interference caused by impedance discontinuities along the transmission line at various frequencies. Return loss is expressed in decibels.

RFI (Radio Frequency Interference) — Noise created in the radio-frequency range.

Riser Cabling — That portion of a building's cabling system which extends from the main distribution frame to the wiring closets. For data, this is often fiber optic cable. For voice, it is fiber optic cable if the PBX is distributed, and twisted pair copper cable otherwise.

RJ-11/12 — A standard connector commonly used to terminate voice connections.

RJ-45 — A standard connector commonly used to terminate data connections.

RS-232-C — An Electrical Industries Association (EIA) Standard for the physical interface between Data Terminal Equipment (DTE) and Data Circuit Terminating Equipment (DCE).

Router — A layer-three device responsible for making decisions regarding which of several paths network traffic will follow. To do this, it uses a routing protocol to gain information about the network, and algorithms to choose the best route based on several criteria (known as routing metrics). Routers interconnect subnets.

SC — A type of optical fiber connector. The SC utilizes the same 2.5mm ferrule as the ST, held in a housing that allows for "push-pull" insertion and removal of the connector of choice for data networks.

ScTP (Screened Twisted Pair) — Copper cable that includes one or more sets of cable pairs which have been molded into an insulating material and covered by a braided shielding conductor. STP offers better noise protection than unshielded twisted pair (UTP) but is much more expensive and more difficult to use. Commonly associated with early token ring networks.

Signaling — The process of sending information over media.

Single Mode fiber — A form of fiber optic cabling in which light follows a single path as it traverses the cable. More expensive, and with a higher maximum rate and distance, than multi-mode fiber optic cable.

SNMP (Simple Network Management Protocol) — An IAB protocol designed to manage networking devices. With SNMP, a management station can configure a supported device (SET), request that the device send statistical, status, and
configuration information (GET), and receive unsolicited alarms from the device (TRAP).

SOHO — Small Office/Home Office

Spanning Tree — A protocol specified in the IEEE 802.1 D standard which allows a network to have a topology that contains physical loops. Spanning Tree operates in bridges and switches. It opens certain paths to create a tree topology, thereby preventing packets from looping endlessly on the network.

SQE test — A special 802.3 signal sent by MAU to the DTE to test the collision detection function. Commonly referred to as Heartbeat. DTEs request the SQE signal; repeaters do not.

ST — A registered trademark of AT&T for their fiber optic connector. Originally, an acronym for "Straight Tip".

Star — A network topology in which each node is connected to a central point.

Station Cabling — See "Horizontal Cabling".

Store and Forward — A method of switching in which a message is received as a whole, buffered, and then resent. All routers and virtually all current switches work in this manner. This method ensures that information being forwarded is free of errors.

STP (Shielded Twisted Pair) — Copper cable that includes one or more sets of cable pairs which have been molded into an insulating material and covered by a braided shielding conductor. STP offers better noise protection than unshielded twisted pair (UTP) but is much more expensive and more difficult to use. Commonly associated with early token ring networks.

Surge — A rapid rise in current or voltage, usually followed by a fall back to a normal level. Also known as transient.

Switch, Ethernet — The Ethernet switch functions like a bridge to isolate traffic and separate collision domains. It’s objective is to increase throughput to each user by decreasing the number of stations that compete for the shared bandwidth. It also maintains a matrix of destination addresses and the physical ports associated with each address, so that it can switch frames/packets. An incoming frame/packet is only transmitted on the port associated with the frame’s destination address. The number of destination addresses is dependent on the vendor model of a switch, but can range from one to over one thousand.

T

TC (Telecommunications Closet) — Central location for termination and routing of on-premises wiring systems.

T-Connectors — Connectors used to join thin Ethernet cable sections. The connectors also have a connector that is attached directly to a station.
TIA (Telecommunications Industry Association) — An organization that sets standards for cabling, pathways, spaces, grounding, bonding, administration, field testing and other aspects of the telecommunications industry.

Token ring — A network architecture standardized in IEEE 802.5 in which the devices on a ring transmit data while they are in possession of a token which passes from node to node continuously. Token ring operates at 4 or 16 Mbps.

Topology — Can be either physical or logical. Physical topology describes the physical connections of a network and the geometric arrangement of links and nodes that make up that network. Logical topology describes the possible logical connections between nodes, and indicates which pairs of nodes are able to communicate.

TP-PMD — Twisted Pair Physical Media Dependent. ANSI X3T9.5 Committee's proposed 100 Mbps over UTP Standard. Also referred to as CDDI (Copper Distributed Data Interface).

Transceiver — A device used in contention networks for sending and receiving data over the same network.

Transient — A high-voltage burst of electric current, usually lasting less than 1 second, occurring randomly.

Trunk Cable — Typically refers to a copper twisted pair backbone or vertical riser cable consisting of multiple groups of 25 pairs.

Twisted Pair — Insulated copper wires twisted together with the twists or lays varied in length to reduce potential signal interference between the pairs. They are usually bundled together and wrapped in a cable sheath. New data grade Unshielded Twisted Pair (Category 5) is specified for 100 Mbps transmission.

UTP (Unshielded Twisted-Pair) — A type of twisted-pair wire that has no metalized outer covering, shielding the pairs of wire. The pairs are typically covered with a plastic sheath.

USOC (Uniform Service Ordering Code) — A term originally used by the telephone company to specify installation of a standard modular jack.

VLAN (Virtual Local Area Network) — In a switched network, a logical collection of devices, such as workstations and servers with a particular IP subnet address, which are grouped into a broadcast domain. Usually, this domain is software based as opposed to a physical LAN, which is defined entirely by wiring.

VF-45 — A fiber connector using V-groove technology instead of ferrules used in traditional SC fiber-optic connectors. The mechanical connection formed with the V-grooves reduces installation time from approximately 15 minutes to 2 minutes. The connector is tested to ISO-11801, the current TIA-568-A premises cabling standards, and the corresponding component standards. The Fiber Channel Association ASC-x3t11 Technical Committee adopted the design in February 1997.
as the new, small-form factor interface for future variants of Fiber Channel.

**VLAN (Virtual Local Area Network)** — In a switched network, a logical collection of devices, such as all the workstations and servers with a particular IP subnet address, which are grouped into a broadcast domain.

**W**

**WAN (Wide Area Network)** — A network that covers a larger geographical area such as a state or country.

**Workstation** — A terminal station, usually connected to a LAN, providing local processing capability and storage as well as access to other workstations and shared resources.
