

MARC Series Room Combine Systems

Total Audio Management for Facilities with Moveable Walls

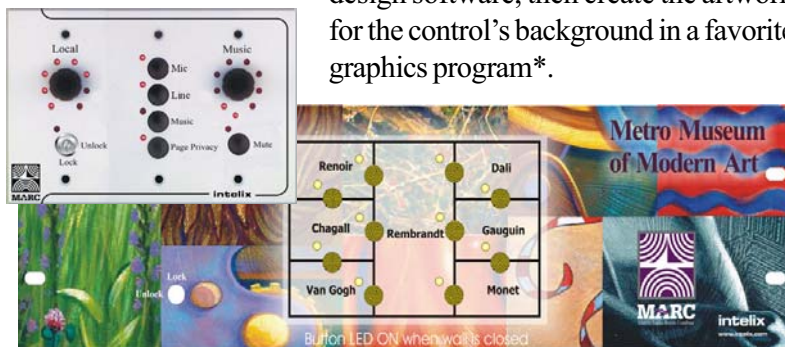


The Intelix MARC Room Combine System is designed specifically for applications with moveable walls, including hotels, convention centers, conference centers, houses of worship, and multi-use facilities. MARC allows you to design, program, and install your sophisticated room combine system in a fraction of the time it would take with other solutions.

The secret is in MARC's embedded logic—all of the logic for routing inputs to outputs, combining and separating rooms, incorporating paging, and managing remote controls is pre-programmed so all you have to do is enter simple data. Plus, the MARC system is flexible enough to allow RS232 and internet control, automatic wall sensors, custom room topologies, and custom remote controls. **Design with Intelix and design with Intelligence.**

Custom Control Panels

Depending on the sophistication of the facility, Intelix offers custom control panels which feature design-specific programming and visually distinctive labeling and background artwork. Begin by specifying the control's layout and function in Intelix's intuitive design software, then create the artwork for the control's background in a favorite graphics program*.



* PageMaker®, Quark Express®, CorelDraw®, AutoCAD®, Adobe Photoshop®, Adobe Illustrator®

Feature Focus

Design & Program from an Architectural Point-of-View

Combine 2-16 Rooms

Manual or Automatic

Mic/Line Mixing per Room

Voice Paging with Autoducking

Keylock Security

Included Facility Manager Software

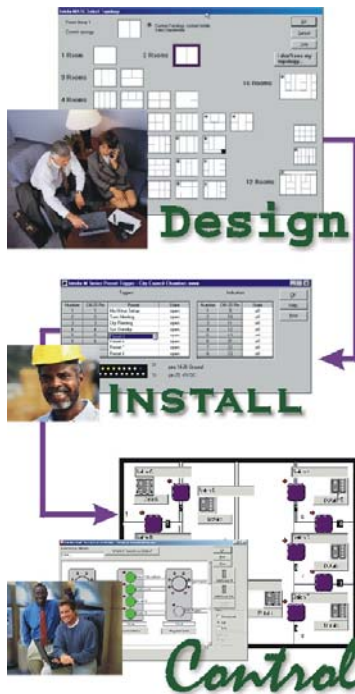
Ethernet Control

Intuitive Remote Controls

All-Inclusive Design, Installation, and Control Software

Ideal for hotels, convention centers, conference centers, houses of worship, multi-use facilities, and any venue with moveable walls.

MARC Designer Software



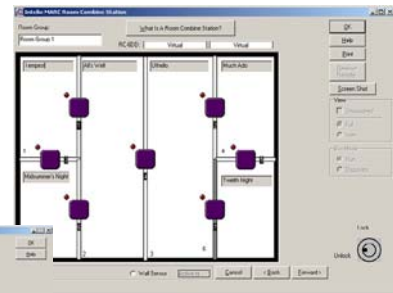
Intelix MARC Designer Software is a unique, all inclusive platform designed specifically for room combining, providing solutions for the system designer, programmer, installer, and eventual end-user.

Specifically, MARC Designer Software:

- Contains all the complex logic for combining two to sixteen rooms, so no extensive programming is required
- Provides design and programming tools from an architectural point-of-view mirroring that of the actual facility
- Allows unique topologies and custom configurations
- Includes built-in keylock facility management software
- Includes assistive software wizards for quick, straight-forward design, programming, and installation
- Allows live control, monitoring, diagnostics, and troubleshooting from anywhere with an internet connection...and the software is 100% free.

The secret behind Intelix MARC room combining designer software lies in the system's embedded logic. Unlike matrices and switchers which are not designed specifically for room combining and force

you to manually program input and output routes, MARC arrives pre-programmed with all of the complex logic for room combining. Simply select the room layout, then the number, location, and type of sources and destinations, and the complex system is defined—programming a sixteen room system is as easy as a programming a two room system.



MARC Designer Software contains all of the embedded logic for routing inputs to outputs, combining and separating rooms, incorporating paging, and managing remote controls.

Advanced Communication: Connectivity, Control, and Security



The hotel...

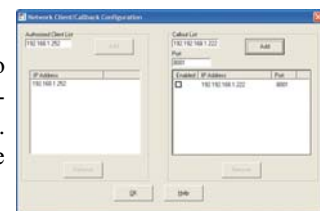
The Intelix MARC Room Combine System is designed for maximum communication and control versatility, and with this comes advanced security safeguards which ensure only authorized users monitor and control the system.

Connectivity. Every MARC system facilitates serial communication via RS232, TCP/IP LAN, and the internet. Front and rear panel RS232 communication ports allow quick on-site diagnostics, and an optional PCMCIA Logic Card allows up to eight contact closure inputs with eight output indicators.



From your office...

Control. Free MARC Designer Software allows you to monitor, control, and troubleshoot the entire MARC system from any remote location with an internet connection. Included password-protected Facility Manager Software even gives internet-ready control to your end-user.



Relax. It's Intelix.

Security. MARC Designer Software features password protection which ensures users won't modify your design and program settings. Further, each MARC matrix includes an authorized client list providing internal firewall protection from unauthorized users.

MARC Hardware



MARC8L8L-E Matrix Mixer

MARC Matrix Mixer (*part numbers vary*). The rack-mounted MARC matrix mixer is the heart of the MARC room combine system, containing all of the complex logic for room combining. A true matrix mixer, MARC allows crosspoint level control of any audio input as it is routed to any audio output. Sizes range from 8 sources by 8 destinations to 128 sources by 16 destinations.



RC-3 Row (standard panel example)

MARC Room Combine Panels (*part numbers vary*). Rack-mounted MARC Room Combine Panels depict the facility's architectural layout and provide manual wall status selection for an onsite facility manager. Room combine panels are available in stock topology configurations, custom topology configurations up to sixteen rooms, and with custom background artwork.



RCS

Room Control Station (*RCS or RCS-Custom*). Triple wall-gang box Intelix RCS room control stations provide a simple remote control interface for end-users. The standard RCS provides keylock security and is labeled for local volume control, background music volume control, page privacy (page muting), as well as source selection between a local microphone, line input, and background music. The RCS-Custom allows custom labeling of buttons and knobs. Both style remotes may be custom programmed through Intelix MARC Designer Software.

Individual Comet Remotes (*Comet Tail-D-RJ12, Comet Tail-P-RJ12, Comet Tail-L-RJ12, Comet 4-D-RJ12, Comet 4-P-RJ12, Comet 4-L-RJ12*). Intelix offers individual Comet remotes for source selection and volume control, allowing you to customize the end-user's remote controls based on the application requirements. All Comets are single wall-gang box mountable, feature RJ12 connectors for wiring, and are available in either decora style (decora mount-ready) or panel style (custom panel mount-ready).



Comet Tail-D-RJ12 (left) and Comet 4-D-RJ12 (right)



Source

Source Panels (*Source Panel*). The Intelix Source Panel provides a single wall gang-box mountable panel with one XLR microphone connector and two RCA transformer summing line connectors.

Automatic Wall Sensors (*Wall Sensors*). Sold in pairs, Intelix wall sensors contain magnetic relay switches which trigger a contact closure through a Comet-8-RJ12 relay.



Wall Sensors



Comet 8-RJ12

Comet 8 Relay Interfaces (*Comet 8-RJ12*). The Intelix Comet 8-RJ12 is the relay station and interface for routing automatic wall sensors to the MARC matrix.

Wall Status Panels (*Wall Status Panel*). Typically used in conjunction with automatic wall sensors, wall status panels indicate wall states visually through a plate-mounted LED.



Wall Status Panel

Comet Bridge Adaptors (*Comet-BA4 and Comet-BA11*). Intelix Comet-BA4 and Comet-BA11 bridge adaptors simplify Comet remote wiring while providing a diagnostic interface should problems arise. The Comet-BA4 distributes one RJ45 input to four RJ45 outputs, while the Comet-BA11 distributes one input to eleven outputs.



Logic I/O

Factory-Installed Mic/Line Pre amplification Card (*Mic/Line Card*). The factory-installed Intelix mic/line card provides +15V phantom power and up to 60 dB of gain for eight MARC input channels (specify one mic/line card per every eight inputs which require preamplification).

PCMCIA Logic Input/Output Card (*Logic I/O Card*). The Intelix Logic I/O Card provides the MARC matrix mixer with eight contact closure logic inputs and outputs.



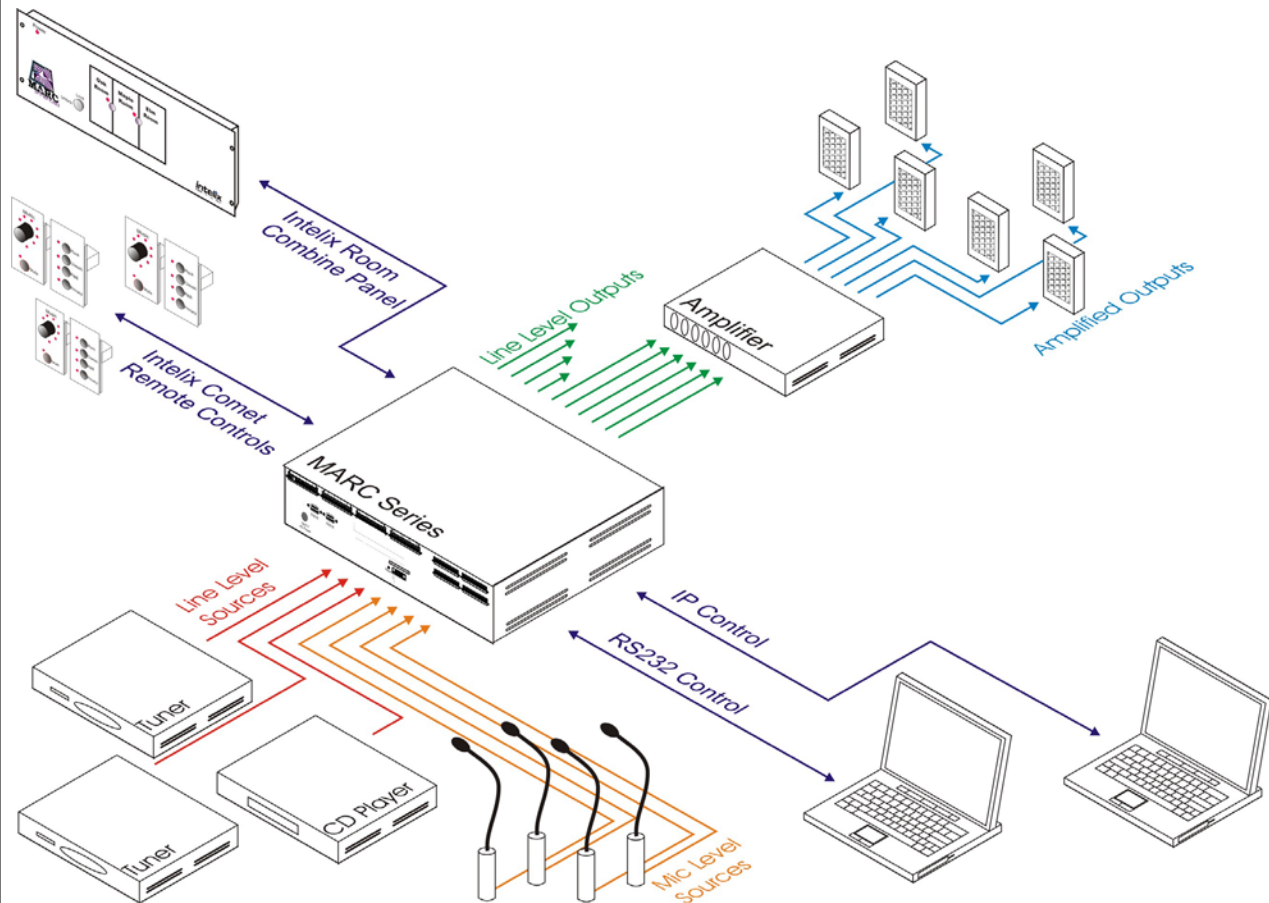
Comet Bridge Adaptors

MARC System Example

If we were to create a purchase order for the MARC system pictured below, it would most likely include the following Intelix components:

- One (1) *MARC8L8L-E* matrix mixer
- One (1) *RC-3* room combine panel
- Six (3) *Comet Tail* volume remote controls
- Four (3) *Comet 4* source selection remote controls
- One (1) *Mic/Line Card* preamplification card
- One (1) *Comet PS* Comet power supply

The external amplifier, speakers, CD player, tuners, control PCs, and wiring must be purchased separately. A matrix power supply, MZP Designer Software, and Comet Remote Test Kit are provided free-of-charge from Intelix.



Additional system drawings are available in the App Notes section of the Intelix online Technical Library.

Creating an Intelix MARC System Purchase Order

The easiest way to prepare a MARC Room Combine System purchase order is to let the MARC Designer software prepare the document for you. Every time you design a system using Intelix Software, a complete parts list and wiring report is automatically generated, ensuring nothing is overlooked.

1 Specify the MARC Matrix Mixer

- Determine the required amount of inputs and outputs. Keep in mind that stereo sources/destinations populate two inputs/outputs.

- Round the numbers up to the nearest derivative of eight and place them within Intelix's part numbering system.

- ◆ *Note: Each mixer purchase includes the required power supply.*

MARC16L8L-E
System Type # of Inputs # of Outputs

2 Specify Control

- Determine if wall state changes are automatic or manual.

- If automatic, specify *Wall Sensors, Wall Status Panels*, and a *Comet 8-RJ12*.

- If manual, specify a *Room Combine Panel*, software, or RS232 controller.

Determine if in-room remote control is required.

- If required, specify Intelix RCS room control stations, individual Comet remotes, or RS232 controllers.

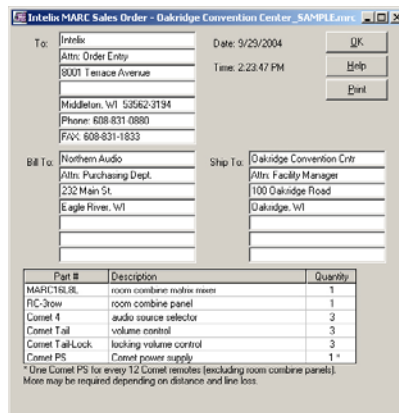
- If ordering custom RCS remotes (*RCS-Custom*), specify button labeling.

- If ordering individual Comet remotes, specify model and mounting type.

Comet Tail-P-RJ12
Control Type Mounting Type Connector Type

- Specify one Comet power supply (*Comet PS*) per 12 individual Comet remotes or 4 RCS room control stations.

- Note: Every Comet or RCS purchase includes an Intelix Comet Test Kit.*



- Determine if logic control is required.

- ▶ If required, specify one PCMCIA *Logic I/O Card*.

3 Specify Enhancement Components

- Determine if audio preamplification or phantom power is required.

- ▶ If required, specify one *Mic/line Card* for every eight channels.

- Determine if any rooms require local line or microphone inputs.

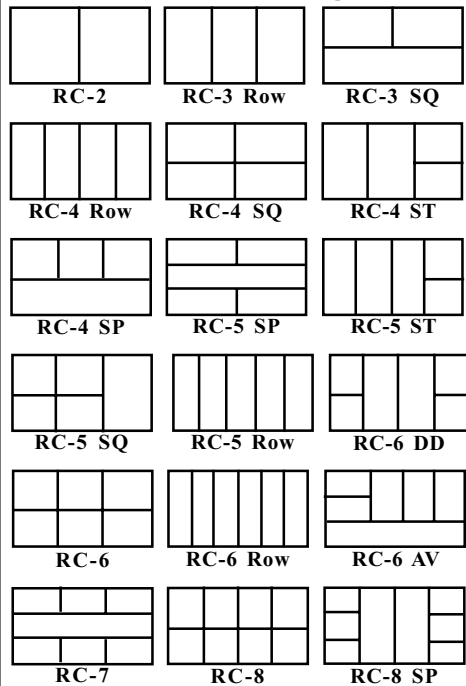
- ▶ If required, specify one *Source Panel* per room.

- To simplify wiring, Intelix recommends *Comet-BA4* and *Comet-BA11* bridge adapters.

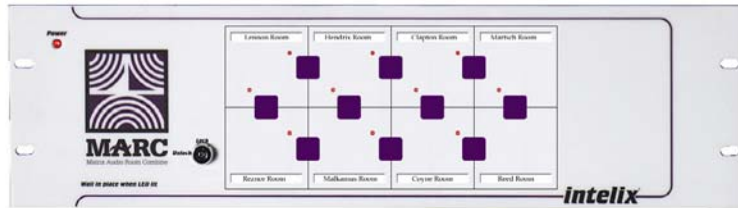
Regardless of how you assemble your purchase order, remember that each system sale is personally handled by an Intelix Application Engineer who ensures your system is complete and correct.

Topologies

Standard Room Configurations



Non-Standard Room Configurations



The Intelix MARC room combine system supports any configuration of sixteen rooms or less; however, several common topologies are pre-programmed into the MARC Designer Software and are available at a substantial savings. Standard room configurations are stocked by the factory and offer the greatest savings; nonstandard are less common and slightly more expensive. All other configurations are based on a factory quote.

InteliTool Message Compiling Software* Eliminate Bulky RS232 Manuals

Generate Cut & Paste
RS232 Code

Control Intelix Matrices
with AMX, Crestron, and
Simtrol

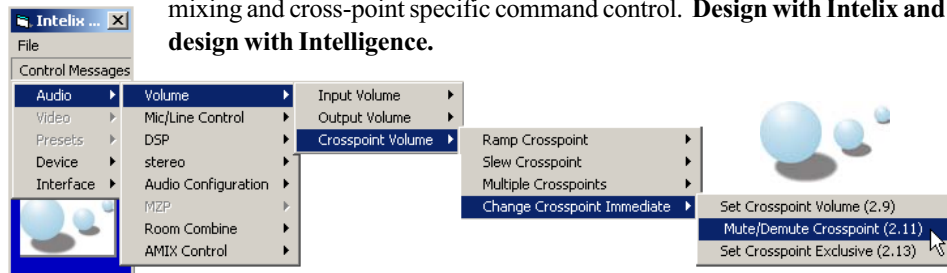
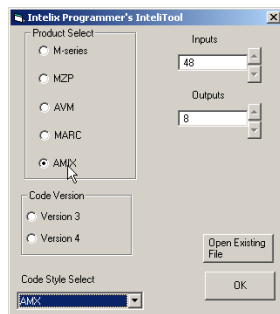
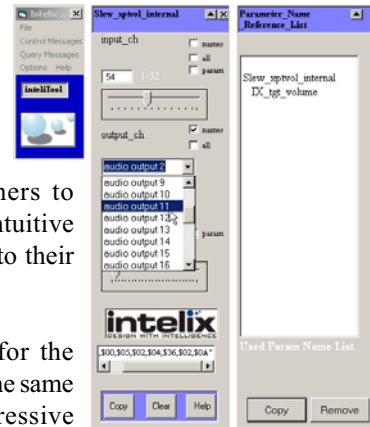
Simplify System
Integration

Save Programmers
Time and Money

Free Download!

Intelix InteliTool Message Compiling Software eliminates the need for bulky RS232 manuals and tedious “hunt and decipher” code generation. Designed to be used in conjunction with other software development environments, InteliTool allows programmers to generate serial strings through a series of intuitive menus, and then copy and paste the strings into their AMX, Crestron, Simtrol, or Intelix program file.

InteliTool software saves time and money for the programmer and installing contractor, while at the same time providing formerly unavailable, progressive design techniques. InteliTool opens the door for the unique and enhanced capabilities of Intelix mixing systems, such as true matrix mixing and cross-point specific command control. **Design with Intellex and design with Intelligence.**



*Patent Pending

MARC Series Time Saving Solutions

Need to save even more time? Intelix offers three time saving options which ensure your installation proceeds smoothly and quickly.

Factory Configuration. To assist customers who wish to minimize onsite labor and pre-installation programming, Intelix offers Factory Configuration which ensures the entire system arrives programmed, labeled, and fully prepped for installation.

Smart MARC Room Combine Kits. The Intelix Smart MARC Room Combine Kit provides everything you need for quick, hands-free room combining—at a fraction of the cost of buying components individually. Each kit features wall sensors for automatic room combining and arrives fully programmed, labeled, and ready to be wired.

Smart MARC Plus Room Combine Kits. The Intelix Smart MARC Plus Room Combine Kit is ideal for facilities seeking the simplicity of the Smart MARC but requesting background music and voice paging. Like the Smart MARC kit, Smart MARC Plus arrives fully programmed and prepped for installation; however, the wall sensors are replaced with a rack-mountable Room Combine Panel featuring the facility’s architectural layout.

Factory Configuration

Factory configuration is a practical and affordable option which ensures your installation proceeds quickly and smoothly. The only prerequisite is a factory-approved MARC Designer Software file. Specifically, Intelix will:

- Confirm, critique, and optimize your MARC Designer Software file
- Program and load the Designer Software file onto the MARC matrix mixer
- Configure and label any Comet remotes or room combine panels according to your specific design criteria
- Test the entire package as a system to ensure proper operation
- Print wiring and product reports for a trouble-free installation
- Provide technical support on a priority basis for two years from the purchase of the system

Factory Configuration is required on all opening MARC system orders unless prior training has been completed.

| Part Number | System Remote Total |
|---------------|---------------------|
| Fact Config-A | 1-16 Comets |
| Fact Config-B | 17-32 Comets |
| Fact Config-C | 33-64 Comets |
| Fact Config-D | 65-128 Comets |

Smart MARC Room Combine Kit Packages

| Product Number | Matrix/Inputs & Outputs | Included Quantity | | | | | | | | | Supported Topology | |
|--------------------------------|-------------------------|-------------------|----------------|--------------|---------------|---------------|-------------|-----------|----------|--------|--------------------|--|
| | | Software Control | Mic/Line Cards | Sensors Wall | Status Panels | Source Panels | Comet Tails | Comet Bbs | Adaptors | Bridge | | |
| Smart MARC Smart MARC-2 | 8x8 | X | 1 | 1 | 1 | 2 | 2 | 1 | 1 | | | |
| Smart MARC-3-SP | 8x8 | X | 1 | 3 | 3 | 3 | 3 | 1 | 1 | | | |
| Smart MARC-3-Row | 8x8 | X | 1 | 2 | 2 | 3 | 3 | 1 | 1 | | | |
| Smart MARC-4-SP | 8x8 | X | 1 | 5 | 5 | 4 | 4 | 1 | 1 | | | |
| Smart MARC-4-SQ | 8x8 | X | 1 | 4 | 4 | 4 | 4 | 1 | 1 | | | |
| Smart MARC-4-Row | 8x8 | X | 1 | 3 | 3 | 4 | 4 | 1 | 1 | | | |
| Smart MARC-5-SQ | 16x8 | X | 2 | 6 | 6 | 5 | 5 | 1 | 1 | | | |
| Smart MARC-5-Row | 16x8 | X | 2 | 4 | 4 | 5 | 5 | 1 | 1 | | | |
| Smart MARC-6-SQ | 16x8 | X | 2 | 7 | 7 | 6 | 6 | 1 | 1 | | | |

MARC Specifications

GENERAL

Frequency Response ±.5 dB from 20 Hz to 20 kHz
 +0, -3 dB from 10 Hz to 30 kHz
VCA Control Range 100 dB (attenuation only)
Signal to Noise Ref +26 dBu = 100 dB
Crosstalk better than -80 dB

INPUTS

Input Impedance (electronically balanced) 20kOhms
 (unbalanced) 10kOhms
Nominal Source Impedance 150 Ohms
Nominal Input Level +4 dBu RMS
Max Input Level +26 dBu RMS

Mic/Line 8 Input Card (optional)

Frequency Response ±.5 dB from 20 Hz to 20 kHz
 +0, -3 dB from 10 Hz to 30 kHz
Maximum Voltage Gain 60 dB
Signal to Noise Ref +26 dBu @ 54 dB sys gain
 ±90 dB
Equivalent Input Noise -129 dB @ 50 Ohms 20 Hz to 20 kHz
Crosstalk better than -90 dB
Phantom Power +15 VDC
Input Impedance 3.5 kOhms
Input Gain/Trim Range 60 dB

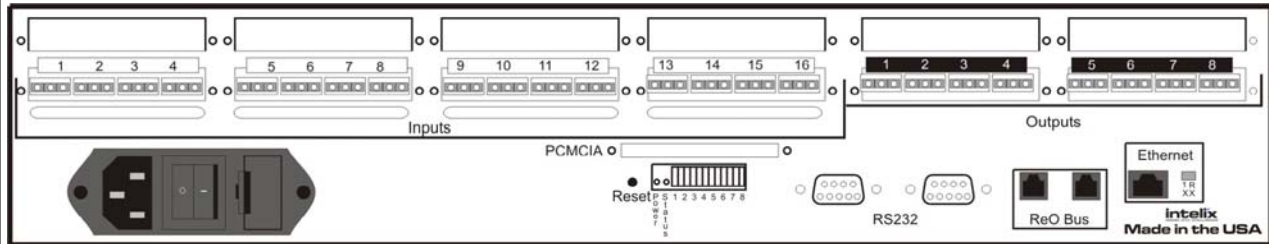
OUTPUTS

Output Impedance (electronically balanced) 440 Ohms
 (unbalanced) 220 Ohms
Nominal Load Impedance 600 Ohms
Nominal Level +4 dBu RMS
Maximum Level (balanced) +26 dBu RMS
 (unbalanced) +20 dBu RMS

Power Requirements 18 VAC Center-Tapped, 4.5 A,
 (stock models) 85 VA, ±19 VDC, 4.5 A

Dimensions 19" x 14" x 3.5"
 (stock 2RU models) (48.2 cm x 8.9 cm x 35.6 cm)

Shipping Weight (average) 24 lb (10.9 kg)



MARC16L8L Matrix Mixer Line Drawing

*Actual chassis size determinant on total number of inputs and outputs.

Smart MARC Plus Room Combine Kit Packages

| Product Number | Included Quantity | | | | | | | | Supported Topology | |
|-----------------------|-------------------------|----------|---------------|-----------------|----------------|------------------|----------------|----------|--------------------|--|
| | Matrix-Inputs & Outputs | Software | Control Cards | Mic/Line Panels | Combine Panels | Control Stations | Control Panels | Adaptors | | |
| Smart MARC Plus-2 | 8x8 | X | 1 | 1 | 2 | 2 | 1 | | | |
| Smart MARC Plus-3-SP | 8x8 | X | 1 | 1 | 3 | 3 | 1 | | | |
| Smart MARC Plus-3-Row | 8x8 | X | 1 | 1 | 3 | 3 | 1 | | | |
| Smart MARC Plus-4-SP | 16x8 | X | 2 | 1 | 4 | 4 | 1 | | | |
| Smart MARC Plus-4-SQ | 16x8 | X | 2 | 1 | 4 | 4 | 1 | | | |
| Smart MARC Plus-4-Row | 16x8 | X | 2 | 1 | 4 | 4 | 1 | | | |
| Smart MARC Plus-5-SQ | 16x8 | X | 2 | 1 | 5 | 5 | 1 | | | |
| Smart MARC Plus-5-Row | 16x8 | X | 2 | 1 | 5 | 5 | 1 | | | |
| Smart MARC Plus-6-SQ | 16x8 | X | 2 | 1 | 6 | 6 | 1 | | | |