# RTS
**Intercom Systems**

# PRODUCT CATALOG


DIGITAL MATRIX & SOFTWARE


WIRELESS INTERCOM SYSTEMS


PARTYLINE SYSTEMS


INTERCOM HEADSETS

# #theRTSdifference

**RTS is the industry leader in professional intercom systems, providing solutions that combine forward-thinking functionality, real-world reliability and superior sound quality.**

**RTS helps professionals communicate clearly with ease and efficiency, so they can focus on content instead of hardware. Whether for applications large or small, we demonstrate our commitment to our users by Innovating the Future of Global Communications.**

Our customer focus and industry expertise is reinforced on a global scale as part of the Bosch Group, which counted 410,000 associates and 440 manufacturing sites, ensuring continuity, innovation and the highest quality standards.

## DIGITAL MATRIX & SOFTWARE

Intercom matrices, interface cards, keypanels, software & peripherals
**page 10**

## WIRELESS

DECT, UHF, and VHF
**page 32**

## PARTYLINE

Beltpack solutions using OMNEO IP and two-wire
**page 40**

## HEADSETS

Headsets, headphones, earsets & accessories
**page 52**

# THE EVOLUTION OF INNOVATION

At the forefront of broadcast intercom technology for 50 years, we are the brand most-trusted by the biggest names in the business. Our family of digital matrices is the most complete and widely used line of intercoms in the world, proven in the most critical and demanding applications.
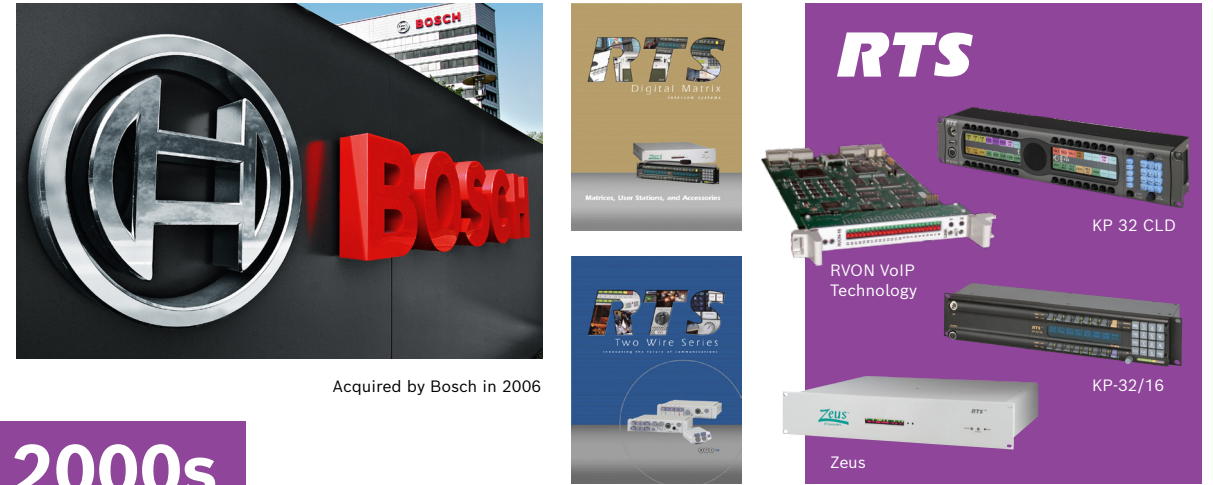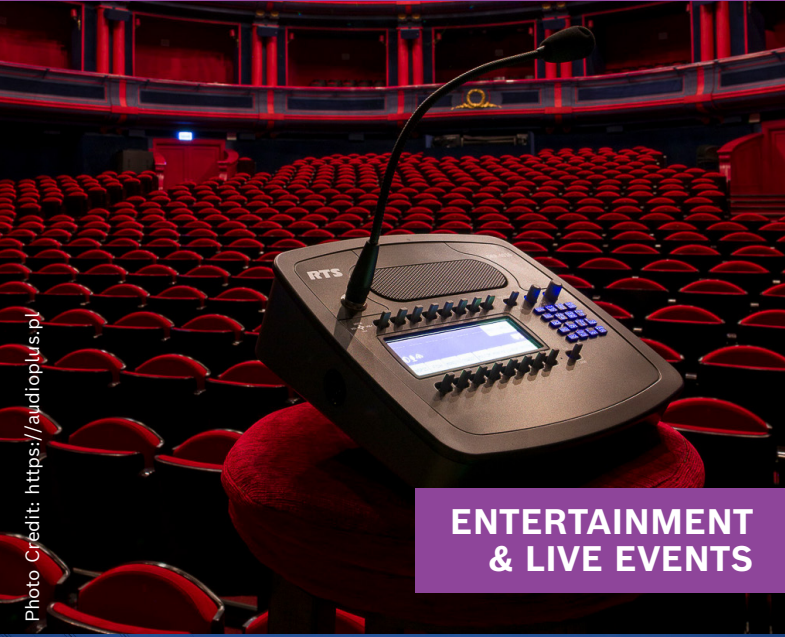
## 1980s

Series 17

NAB 1980

**RTS Systems INC.**

**RTS SYSTEMS INCORPORATED**

THE PERFECT CONNECTION

SIMPLY REMARKABLE.

THE RESULT OF SEVEN YEARS OF INNOVATION AND EXPERIENCE

THE ESSENTIAL INGREDIENT

VT magazine

**Stan Hubler** (L) and **Douglas Leighton** (R) *RTS founders*

Model 802 Master Station

## 2000s

Acquired by Bosch in 2006

**RTS**

Digital Matrix

Two Wire Series

**RTS**

KP 32 CLD

RVON VoIP Technology

KP-32/16

Zeus

## 2020s

CLOUD-BASED COMMUNICATION

**LET'S TALK IP**

VLink

## 1970s

The garage where it all started in 1975

Compact Video Systems

**rts SYSTEMS**

BP102

## 1990s

**RTS SYSTEMS INC.**

THE FIRST NAME IN INTERCOMMUNICATIONS

THE ART OF CONVERSATION

Advanced Digital Audio Matrix (ADAM)

## 2010s

**40 YEARS OF RTS**

ONE CABLE. **UNLIMITED POSSIBILITIES.**

ODIN

**OMNEO** onboard

KP-Series

ADAM-M

ROAMEO

**RTS DIGITAL PARTYLINE**

OMS

DBP

Photo Credit: https://audioplus.pl

**ENTERTAINMENT & LIVE EVENTS**

**CRITICAL**

# APPLICATION BREADTH

**RTS intercom systems are scalable for a wide range of applications. From broadcasting to in-house production communications for houses of worship and live entertainment. RTS also has field-proven failsafe communications solutions for mission critical communications like emergency response centers, aerospace control, and power plants.**

**RTS helps professionals communicate clearly with ease and efficiency, so they can focus on content instead of hardware. Whether for applications large or small, we demonstrate our commitment to our users by innovating the future of global communications.**

**"People kept commenting on how crystal clear the comm system was and how well it worked."**
- Jim Barton, ME Pro Video
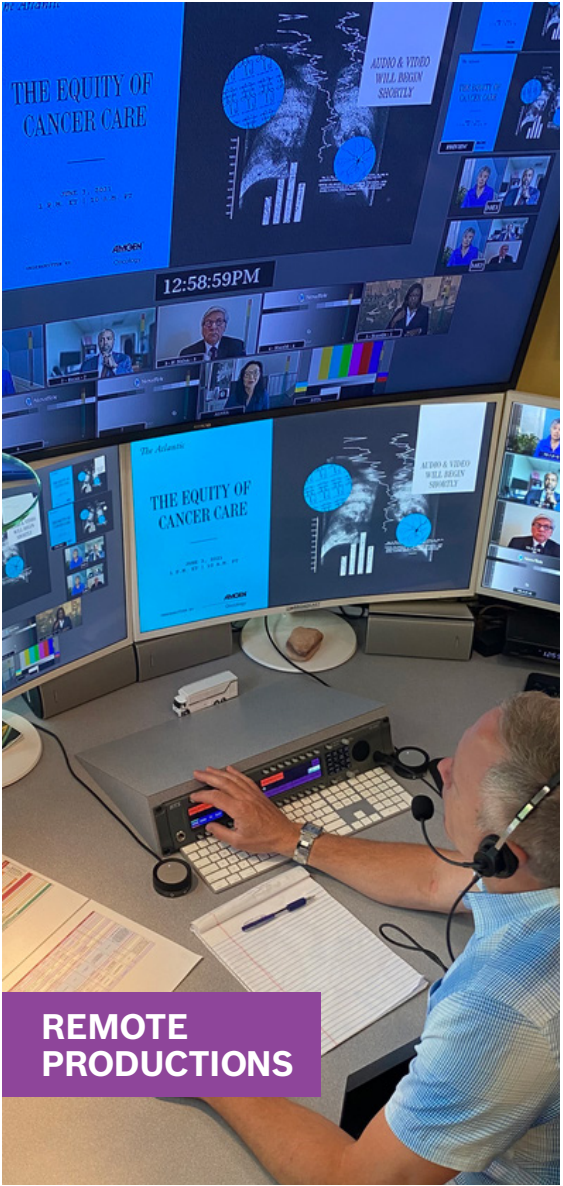


**REMOTE PRODUCTIONS**

# BROADCAST
## NETWORKS

RTS is the most-trusted name in intercom for the world's largest TV networks, an essential element of successfully broadcasting the biggest events on the planet, including the Olympics, FIFA World Cup and many other international sports tournaments.

Redundancy and reliability are perhaps the most important factors when it comes to broadcast intercom. Failsafe communications that connect team members in different locations, and often in different countries, systems that remain stable and online in the most challenging environments and working conditions. Glitch-free is now available for the most reliable local communications.

As the only brand to offer intelligent trunking and the robust RVON codec, RTS is the go-to for ensuring that behind the scenes people are communicating clearly so the job gets done, from OB vans and remote productions, to local stations and major networks.



**STUDIOS**



**OB TRUCKS**

**"With the complication that COVID safety brings to Olympics planning and deployment, RTS comes through with products like VLink, RVON and Trunking, giving us the freedom and comfort to work outside of that box."**
- John Pastore, NBC Sports"

## RTS + NMOS

RTS intercoms support NMOS — a family of open, free-of-charge specifications that enable interoperability between media devices on an IP infrastructure.

## RTS NMOS Proxy node (RNPn)

- RTS NMOS Proxy node > NMOS Node connected to network
- Supports NMOS IS-04, IS-05 and IS-08
- There are three components to RPNn:
  - Proxy (service)
  - User interface app (used for configuration of the proxy)
  - Installer (installs the proxy and the user interface app)

# LET'S TALK IP

**What makes OMNEO featuring SMPTE ST 2110 a better IP solution?**

Today, our latest generation of advanced digital audio matrix and keypanel products is based upon the uniquely powerful and flexible OMNEO IP technology for media transmission and system control. The OMNEO media networking architecture has support for Dante, ST 2110, AES67, as well as the broadly available Dante™ from Audinate. This easy to use approach provides users with the interoperability to interface with other devices throughout their network.
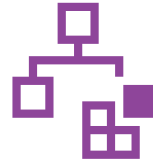
A top priority for us is the backwards compatibility of our new products, so they can integrate seamlessly with legacy systems to extend the value of the initial investment. RTS offers the widest variety of matrix interfaces in the market: RVON (VoIP), MADI and OMNEO (Dante, ST 2110, AES67), connecting via Ethernet, fiber, copper analog, analog, and two wire.

### CHANNEL-BY-CHANNEL SELECTABILITY

Users can choose if a channel speaks 2110, OMNEO, Dante, etc. This provides the greatest degree of flexibility in configuring protocols across the system.

### BACKWARDS COMPATIBILITY

Users can add 2110 capability with a simple upgrade to existing equipment. Backwards compatibility helps extend the life of the user's investment and is a core value of RTS.
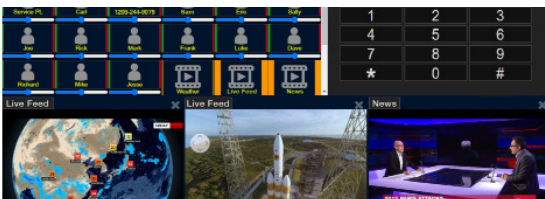
### SIMPLIFIED NATIVE IMPLEMENTATION

Dante Domain Manager no longer required. Some limitations apply. Contact RTS for more information.
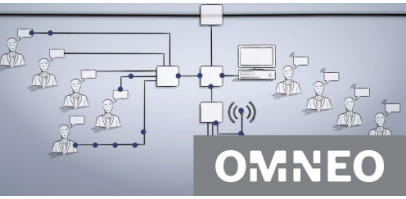
## LONG DISTANCE
**PUBLIC NETWORK COMMUNICATION**

RVON (RTS Voice Over Network) is a way of getting audio across long distances over VPN, without the need for dedicated infrastructure.

## LOCAL NETWORK
**COMMUNICATION**

OMNEO is an evolutionary solution for connecting devices over IP to exchange information including control and audio content for use in applications such as pro audio, public address, intercom, and conferencing.

## CLOUD-BASED
**COMMUNICATION**

Your private matrix communications cloud and interoperability solution is ideal for interfacing communications systems from disparate locations.
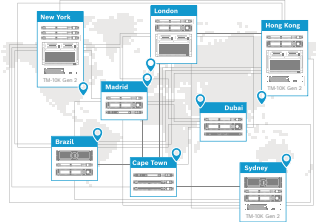
## GLOBAL
**DECENTRALIZED COMMUNICATIONS (TRUNKING)**

Trunking is the use of interconnections between two or more intercom matrices, to enable a user on one intercom to talk to a user on another, as if they were on the same system. RTS Intelligent Trunking can grow up to 225,000 ports and is supported by all RTS matrices.

**New York**

TM-10K Gen 2

**London**

**Hong Kong**

TM-10K Gen 2

**Madrid**

**Dubai**

**Brazil**

**Cape Town**

**Sydney**
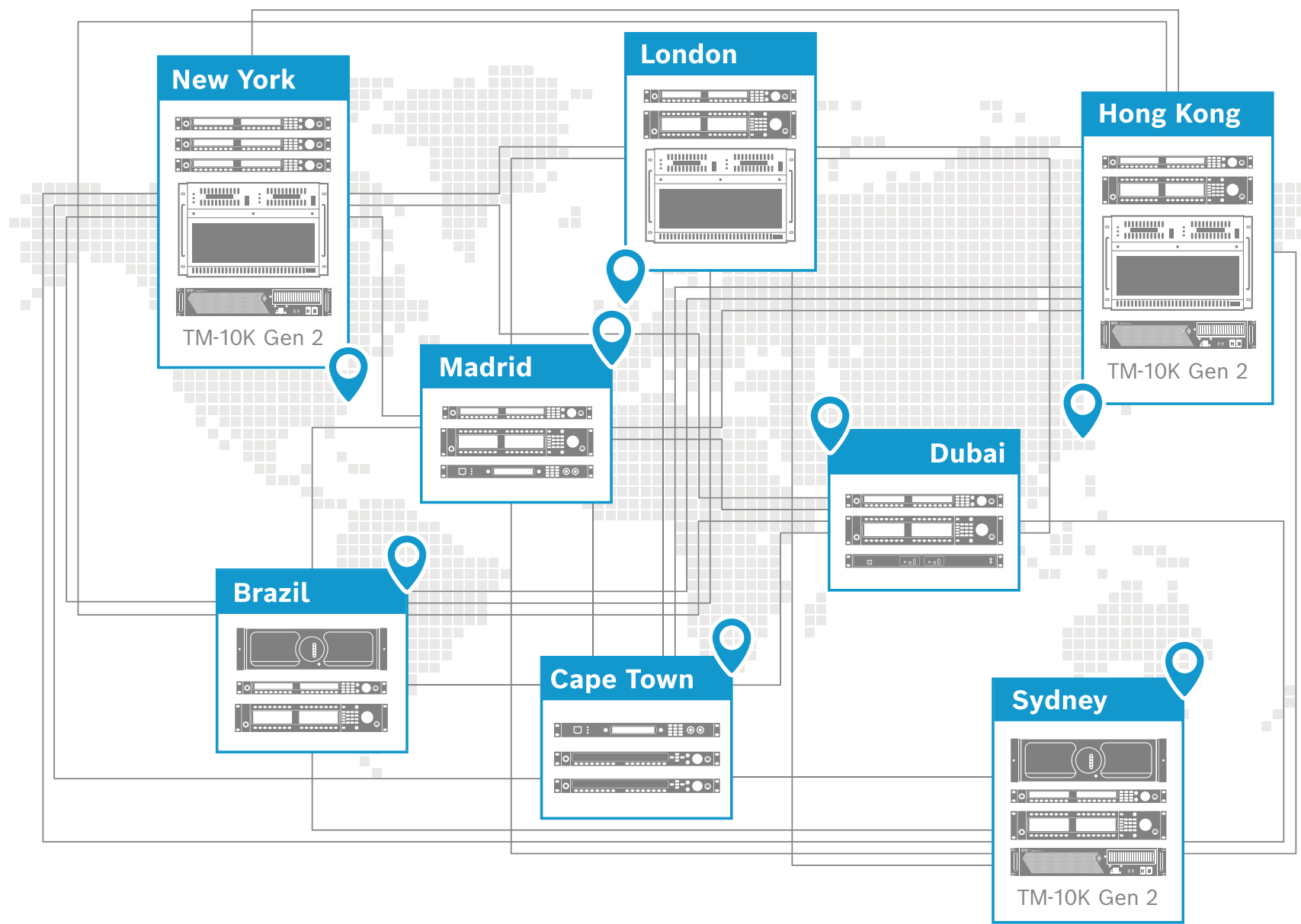
TM-10K Gen 2

# TM-10K GEN2
## TRUNKMASTER



- Supports configurations from 2 to 255 intercom systems with 10,000 assignable trunk lines.
- Includes dual AC power supplies for full redundancy in mission critical applications.
- Supports dual 100/1000 Mbps Ethernet connections for redundant or segregated network topologies.
- Supports geographically separated Trunkmasters for disaster recovery planning.

# TM-10K GAIN SW
## TM-10K GAIN CONTROL MANAGEMENT



- Available as software license package with test license available.
- RTS intercoms allow the user to adjust listen levels for local point-to-point and party line assignments, e.g. to adjust the individual component volumes when listening to a mix of sources. Trunking Gain Control Management extends this, allowing the user to adjust the listen volumes for remote assignments.
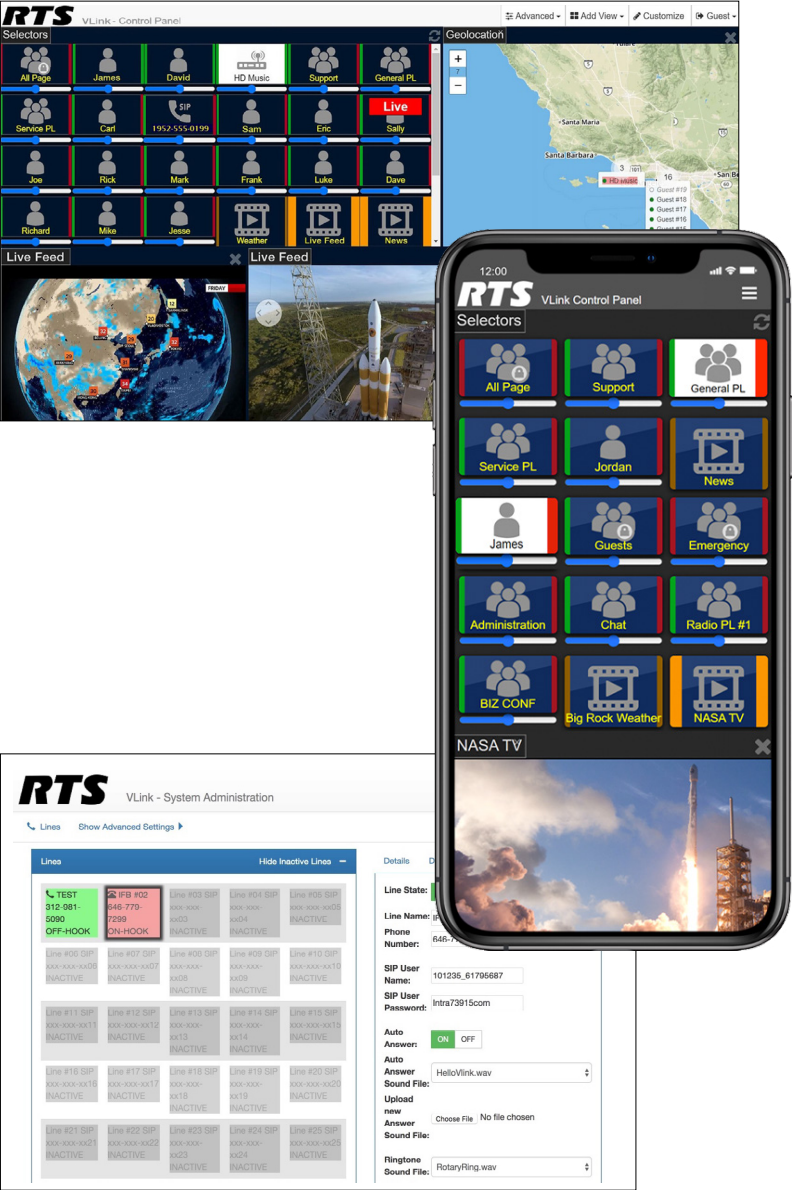
# VLINK VIRTUAL INTERCOM

VLink™ is an IP-software multi-channel / multi-access communications solution that intelligently connects to RTS intercoms, creating the optimal fusion of hardware and software capabilities. VLink is highly scalable to thousands of soft keypanel users, supports virtually an unlimited number of point-to-points and PLs, SNMP traps, AES encryption, and recording.

**VLink consists of the following core components:**

- **Link Virtual Matrix / Server:** multi-threaded, server-side summing/mixing engine with integrated SIP support
- **VLink User Interface:** client-side GUI for non-blocking, multi-channel, multi-access critical communications
- **VLink Device Interface:** software interface to easily bridge disparate communication systems including hardware intercoms, two-way radios, and public/private telephone networks
- **System Administration Application:** administrative user control for dynamic configuration and monitoring of VLink from any workstation on the network

**Additional VLink Options:**

- **VLink Redundancy:** Add redundant ports to your VLink intercom or SIP interface
- **VLink-Lite:** Simplistic "wireless intercom" system limited to 8 PL's and 64 users
- **VLink-Recording:** Audio Recording: Enables audio recording on a per-client basis
- **VLink-Encryption:** Adds AES 256-bit encryption to system

## MOBILE IP INTERCOM
### FOR iOS & ANDROID

VLink turns the familiar Apple iOS, or Android device into the ultimate wireless intercom system. While traditional systems use the increasingly congested RF (Radio Frequency) and distance limited wireless spectrum, VLink Virtual Matrix allows communications over standard WiFi, 4G, 5G with no distance limitations between devices and no complicated RF antenna set-up.

VLink allows for a virtually unlimited number of users and channels, and with flexible button programmability can meet the most demanding wireless communications requirements.

# VLINK LITE

Professional intercom in the palm of your hand. VLink Lite is a cost-effective wireless intercom solution that runs on virtually any iOS or Android device. The solution supports point-to-point and partyline. Connect up to 64 users and 8 partylines to a single server. VLink Lite works over WiFi, cellular, or satellite.

**Features include:**

- Improve your communications experience with high-quality 48 kHz WebRTC audio. 6x better audio quality than a standard phone call.
- Available anywhere – no need to buy new equipment. Use VLink Lite on your existing smartphones and computers.
- Accessible anywhere – VLink Lite isn't tied to a single location like traditional communications. Access your system over WiFi or cellular.
- Monitor video feeds and communications all from one interface.

| Feature comparison | VLink | VLink Lite |
|---|---|---|
| Intelligent trunking to ODIN / ADAM | Yes | No |
| WebRTC control panel | Yes | Yes |
| Maximum number of Partylines | 200 | 8 |
| Maximum number of ports | 2000 | 64 |

### WebRTC

The WebRTC Control Panel supports high fidelity 48Khz audio and adds exciting new functionality including the ability to monitor video streams. All accessible using your browser or one of our dedicated WebRTC apps with V6 and newer.
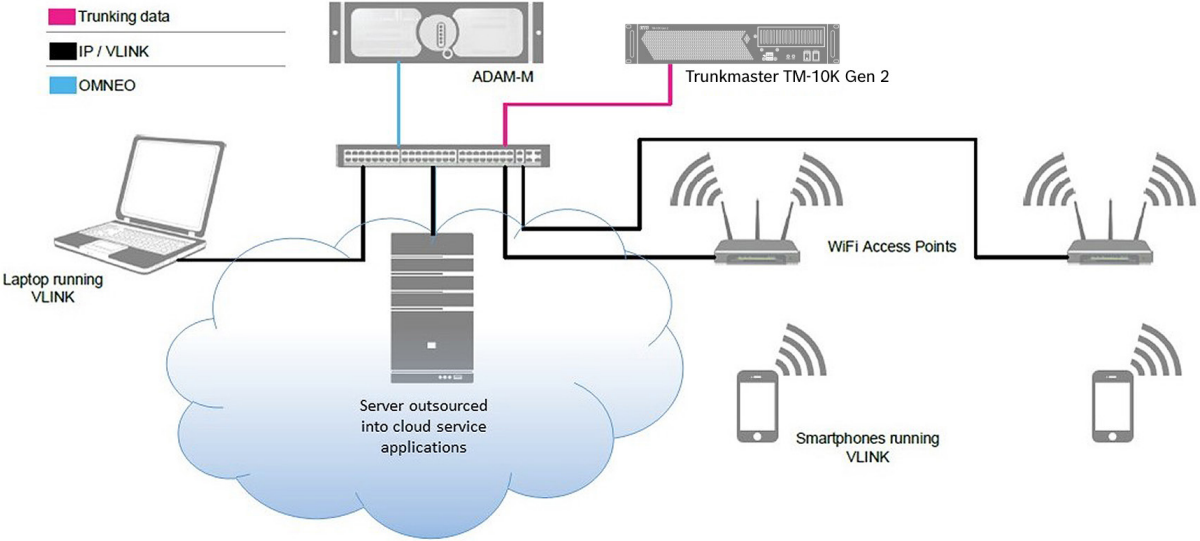
### Connect to RTS Hardware

VLink enables seamless integration between virtual intercoms, phone systems, and RTS Matrix hardware. The solution is ideal for use in broadcast studios and mobile units to provide IFB, camera operators, and partylines. Configuration, monitoring, and establishing calls is handled through an intuitive web interface complete with VU meters.

### Available Anywhere

VLink works over Wifi, cellular, or satellite, and with flexible button programmability can meet the most demanding wireless communications requirements.

**VLink Communications system**

Trunking data
IP / VLINK
OMNEO

ADAM-M

Trunkmaster TM-10K Gen 2

WiFi Access Points

Laptop running VLINK

Server outsourced into cloud service applications

Smartphones running VLINK

# VLINK CLOUD
## UNLEASH THE POWER OF THE INTERNET

Your private matrix communications cloud and interoperability solution is ideal for interfacing communications systems from disparate locations. The possibilities are limitless.
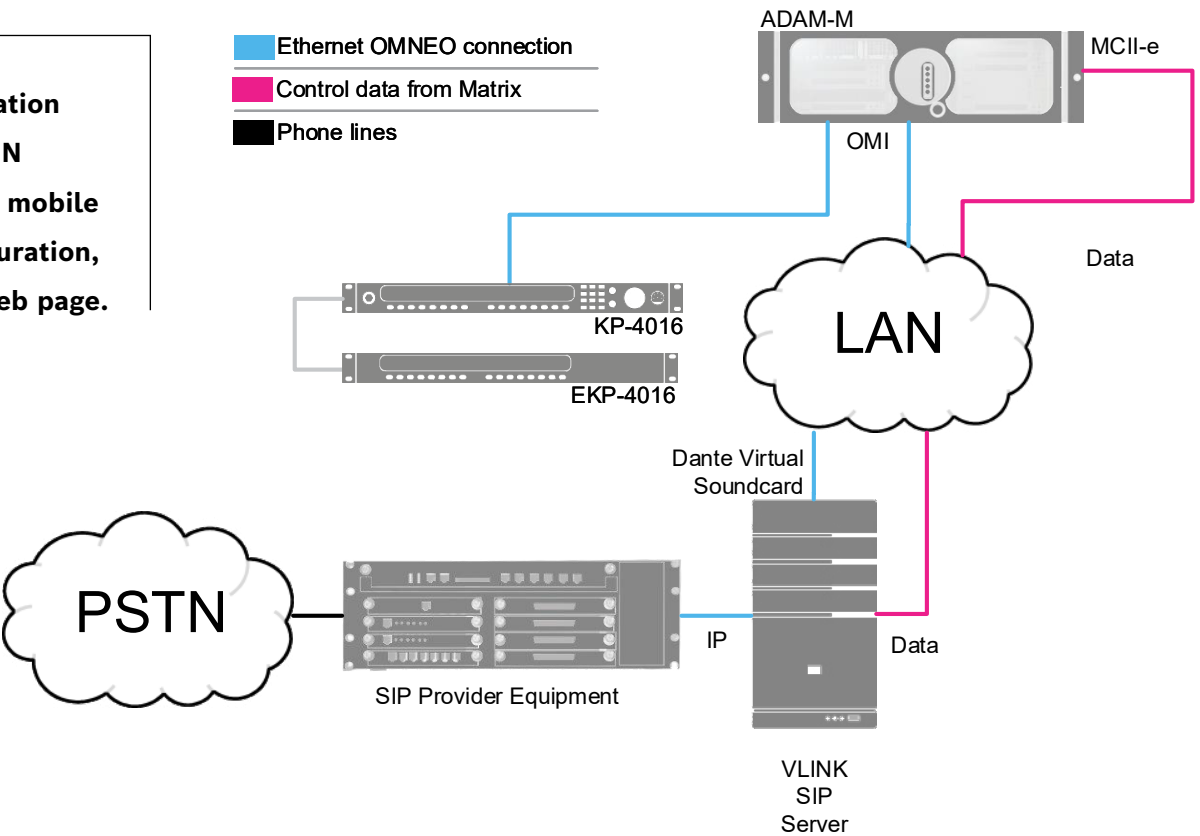
VLink truly ignites the imagination with all the potential of new age communications, coexisting with traditional matrix intercom frames, supplementing traditional hardware intercom panels, and operating locally or thru Internet-based cloud services.

# VLINK TIF

The VLink Telephone Interface solution enables seamless integration between phone systems with SIP support and RTS ADAM or ODIN intercoms. The solution is ideal for use in broadcast studios and mobile units to provide IFB, camera operators, and conferences. Configuration, monitoring, and establishing calls is handled through a single web page.

**Features include:**

- Intuitive GUI that displays all phone lines color coded by status: on-hook (gray), connecting (green flash), off-hook (green), disconnecting (red flash)
- Individual phone line configuration menus
- On-screen dialer
- Audio input and output gain level adjustments in ± 6 dB intervals
- VLink SIP supports analog, MADI, and Dante connections to interconnect audio between phone systems with SIP support and KP-Series keypanels.

Ethernet OMNEO connection
Control data from Matrix
Phone lines

ADAM-M
MCII-e
OMI
Data

KP-4016
EKP-4016

LAN

Dante Virtual Soundcard

PSTN

SIP Provider Equipment

IP
Data

VLINK SIP Server

**Demo VLink at: rtsintercoms.com/vlink**

# NEO INTERCOM MANAGEMENT SUITE SOFTWARE

- Expands the capabilities of RTS AZedit configuration software for even more efficiency

- Speeds up day-to-day tasks for RTS matrix intercom systems of any size and complexity

- Multi-window and multi-screen support for intuitive configuration and control

- Support for Windows and macOS

NEO Intercom Management Suite is the next-generation software ecosystem designed for faster and more flexible configuration of OMNEO-based RTS intercom systems.

The RTS NEO Intercom Management Suite is an all-encompassing interface that puts every aspect of intercom system orchestration at the user's fingertips, immediately and intuitively. It works in tandem with the existing AZedit software platform for RTS matrix systems, significantly evolving and enhancing the AZedit feature set and user experience.
A range of powerful new tools enable professionals to optimize their communications workflows for next-level efficiency and effectiveness – no matter how complex the system.
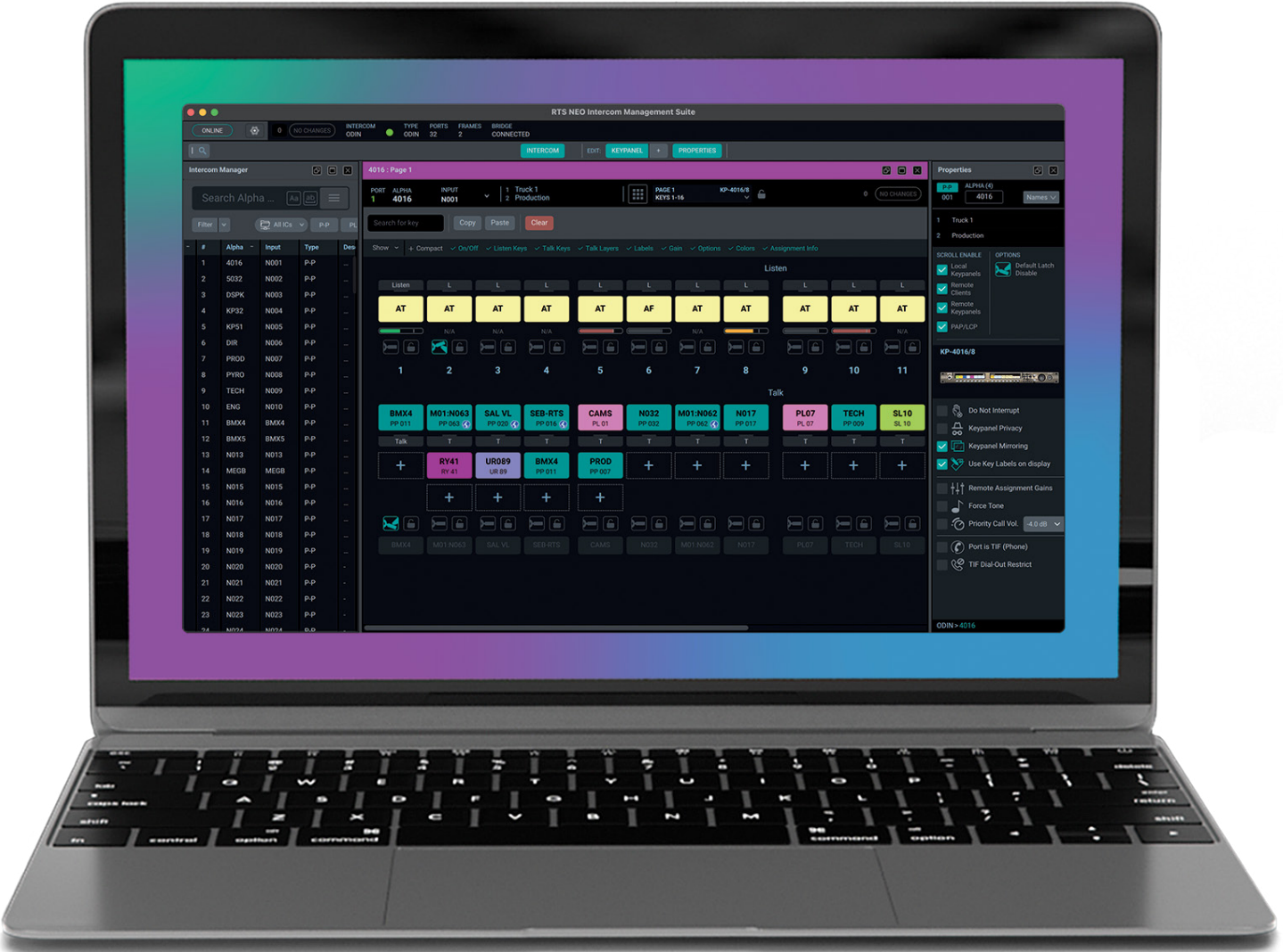
**INTERCOM ORCHESTRATION AT YOUR FINGERTIPS**

# INTERCOM
# MATRICES

The RTS family of digital intercom matrices is the most extensive, widely used line of intercoms in the world. Systems can be scalable from 16 to 1024 ports, available in sizes from 16 to 1024 users. RTS matrices are the standard for reliable, mission-critical communications in aerospace, broadcast, entertainment applications, industrial, and sports.

"Previously, the team used a two-channel party line intercom, which is all they thought they needed. But once they learned how powerful a digital matrix can be – how it could do things that they knew were possible, but hadn't considered for their operation – they were sold."
- Kevin Henneman, KMH Integration for the Pittsburgh Steelers

## ADAM 2
### FULL-SIZE MODULAR
### MATRIX INTERCOM

The high-end ADAM 2 Matrix supports 8 to 880 users per system; 512 ports possible in one frame. Utilizing a patented TDM (Time Division Multiplex) technique, the ADAM 2 grows linearly as users are added. The system comes standard with redundant universal power supplies (100-240 VAC), and supports redundant controllers, allowing for automatic change-over in the event of failure.

## ADAM-M
### MID-SIZE MODULAR
### MATRIX INTERCOM

The 3RU matrix frame supports eight interface cards, in addition to redundant master controller cards. In keeping with the RTS principle of backward compatibility, forward thinking, the ADAM-M is fully compatible with all current ADAM cards, including the MADI-2 and OMNEO 16-64 interface. Users now have the option of configuring a very compact frame with RVON, MADI, OMNEO and analog with full redundancy.

## ODIN
### OMNEO IP
### DIGITAL INTERCOM

The ODIN Digital Intercom is a highly scalable intercom system in a 1RU (Rack Unit) package. As your capacity needs to evolve, a single ODIN can grow from 16 ports to a maximum of 128 ports. A maximum of eight ODIN units can be interconnected via an optical Inter-Frame Link creating a single matrix with up to 1024 ports including flexible redundancy options (up to 8+8). Additional failsafe features include Backup+Restore and Frame Swap.

**VLink Virtual Intercom Matrix.**
VLink Virtual Intercom matrix is a multi-threaded, server-side summing/mixing engine with integrated SIP support.
**Learn more on Page 12.**

# SCALABLE INTERFACE CARDS FOR ADAM SERIES MATRICES

## MCII-E
### ETHERNET MASTER CONTROLLER CARD KIT FOR ADAM

The RTS MCII-E is a system controller for the ADAM and ADAM-M intercom systems. The Ethernet connectivity enables multiple AZedit sessions and remote peripherals such as the GPIO-16.

## OMI
### OMNEO MATRIX INTERFACE CARD

This card fits into the standard slots of the RTS ADAM or ADAM-M frames and provides a gateway to the world of OMNEO IP-compatible networking. The card consists of the traditional ADAM front and back card components and enhances ADAM systems.

● OMI
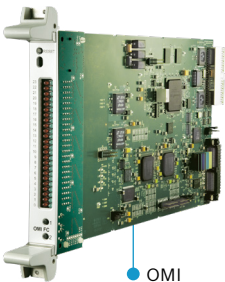
## RVON+
### 16- OR 32-PORT VOIP CARD FOR ADAM SERIES

The RVON+ provides VoIP communications for the RTS ADAM Intercom product family. The RVON+ is an integrated solution for connecting keypanels to the intercom matrix or matrix to matrix tie lines over standard IP networks by supporting 16 and 32 channels of bi-directional audio, as well as keypanel data.

## AIO-16A
### 16CH INPUT/OUTPUT CARD

The AIO-16A replaces the AIO-16 card with improved performance characteristics. It co-exists with legacy I/O cards allowing current systems the capability to upgrade to the new AIO-16A. It is fully compatible with the AIO-16 using the same back card and cabling. This means the AIO-16A can replace the AIO-16 card without replacing the back cards, cables or breakout panels.

## MADI-2
### MULTI-CHANNEL AUDIO DIGITAL INTERFACE CARD

The MADI-2 card expands the ADAM system configuration capabilities by utilizing MADI (Multi-channel Audio Digital Interface) technology to connect any AES-10 compliant device over coaxial or fiber connections at sampling rates of 44.1kHz and 48kHz.

The MADI-2 is fully scalable, allowing 16 to 64 channels of audio in and out. It supports hot-swapping and can be configured through the RTS AZedit configuration software.

## TBX-2
### TRIPLE BUS EXPANDER CARD KIT

A single TBX-2 fiber card can link up to four (4) ADAM/ADAM-M frames, while multiple Tribus cards can link up to nine (9) frames. This makes it possible to increase the number of available users on a system by transparently integrating additional frames.

| | MCII-E | OMI | RVON+ | AIO-16A | MADI-2 | TBX-2 |
|---|---|---|---|---|---|---|
| Supporting Products | | | ADAM, ADAM-M | | | |
| Function of Card | Master Controller | OMNEO Matrix Interface | VoIP interface | Analog Input/Output | MADI Input/Output | Triple bus matrix expander |
| Features | Connects to AZedit matrix control software via Ethernet; controls matrix | Provides high-quality audio over IP | Connects matrix to panels and/or audio tielines over standard IP networks | Provides ports for audio in and out via MDR or SCSI, plus individual data drivers | Connects any AES-10 compliant devices over coaxial or fiber | One card links up to four ADAM or ADAM-M frames together |
| Connections | (1) RJ45 Ethernet Connections (1) SCSI | (2) RJ45 Ethernet Connections (1) LC Type SFP Fiber Connector (1) DB-9 Serial data port | (1) DB-9 RS232/485 Serial data (2) RJ45 Ethernet Connectors (2) Fiber SFP | Choice of SCSI or MDR back cards (BC) BCs connect to break-out panels for (32) DB-9, (48) RJ-45 (ADAM, 6 x 16 for ADAM-M), or (6) 48-pin Telco connectors | (1) RJ45 Serial data for RS232/485 (2) LC Type SFP Fiber Connectors (SM) (4) BNC connectors for MADI In/Out, Word Clock, and TV Sync | (3) LC Type SFP Fiber Connectors |
| Ports Per Card | N/A | 16-64, software license scalable | 16-32 software license scalable | 16 | 16-64, software license scalable | N/A |
| Frequency Response (Input) | N/A | ± 1 dB from 20 Hz to 20 kHz | | ± 1 dB from 20 Hz to 20 kHz | ± 1 dB from 20 Hz to 20 kHz | N/A |
| THD+N at 1 kHz | N/A | < 0.01% @ 8 dBu | | < 0.007% @ 21 dBu, 1 kHz, unweighted | < 0.4% @ 1 kHz | N/A |
| Network Requirements | 10 - 100 Mbit/s | ≥ 100 Mbit/ | ≥ 10 Mbit/s | N/A | N/A | N/A |
| Storage Temperature | | | -40°C to 70°C (-40°F to 158°F) | | | |
| Operating Temperature | | | 0°C to 50°C (32°F to 122°F) | | | |
| Power Consumption | 7.5 W / 1.5 A @ 5 V FC and BC combined | 14.9 W @ 5 V FC and BC combined | 9.0 W when running 32 ports | 18.2 W FC only | 18.7 W / 3.7 A @ 5V FC and BC combined | 13 W FC and BC combined |
| Weight | FC: 0.33 kg (0.73 lb) BC: 0.12 kg (0.26 lb) | FC: 0.29 kg (0.64 lb) BC: 0.14 kg (0.31 lb) | FC: 0.30 kg (0.66 lb) BC: 0.4 kg (0.31 lb) | FC: 0.33 kg (0.73 lb) | FC: 0.33 kg (0.73 lb) BC: 0.19 kg (0.42 lb) | FC: 0.34 kg (0.75 lb) BC: 0.17 kg (0.37 lb) |
| Card Dimensions (W x D x H) | | | Front Card: 2.1 cm x 32.2 cm x 17.3 cm (0.8" x 12.7" x 6.8") Back Card: 2.0 cm x 17.3 cm x 17.3 cm (0.8" x 6.8" x 6.8") | | | |

## XCP-48-RJ45-E
### BREAKOUT PANEL

The XCP-48-RJ45-E is a 48-port RJ-45 breakout panel with MDR connector for the AIO-16. It allows you to expand the number of RJ-45 ports on the Intercom system. The XCP-48-RJ45-E supports both 568B and USOC wiring conventions.

● XCP-48-RJ45-E front

● XCP-48-RJ45-E back

| Panel | Back card | Connectors |
|---|---|---|
| XCP-955 | Telco | (25x) RJ-12 |
| XCP-954-48 | Telco | (48x) DB-9 |
| XCP-32-DB9 | MDR | (48x) DB-9 |
| XCP-16-DB9-T | MDR | (16x) DB-9 |
| XCP-48-RJ45-E | MDR | (48x) RJ-45 |
| XCP-48-Telco | MDR/Telco | (6x) Telco |
| XCP-40-DB9 | SCSI | (40x) DB-9 |
| XCP-40-RJ11 | SCSI | (40x) RJ-12 |
| XCP-40-RJ11 | SCSI | (3x) Telco |
| XCP-ADAM-MC | SCSI | (10x) DB-9, (1x DB25) |

Scalable

Versatile

User-friendly

Efficient

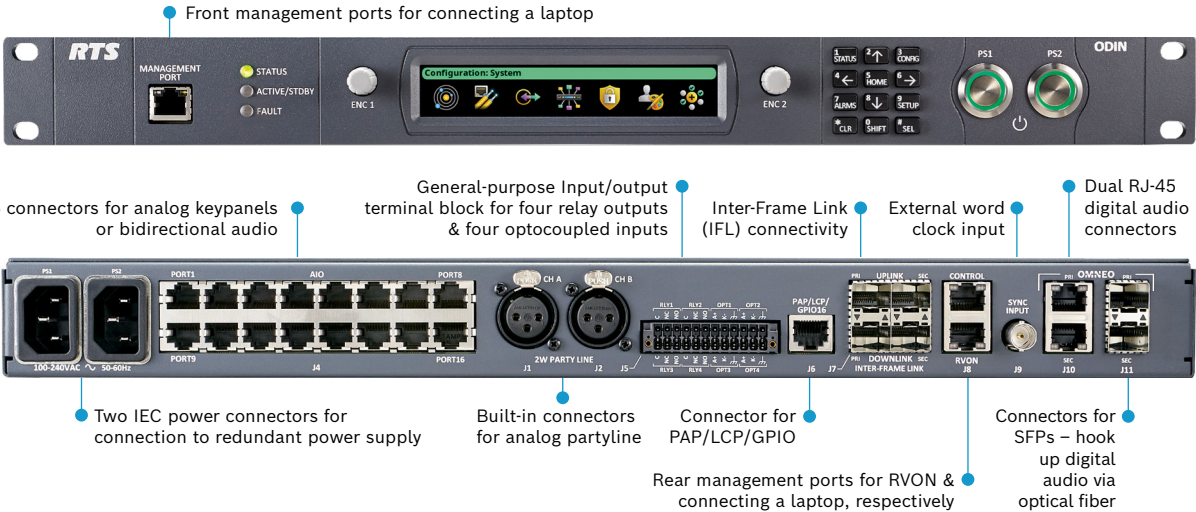Flexible

**REVOLUTIONIZE
YOUR INTERCOM
... IN 1RU**

# ODIN
## DIGITAL INTERCOM MATRIX

**Condensing decades of experience and our latest IP-based
innovations into a compact single rack unit package, ODIN is
designed to truly revolutionize intercom connectivity, scalability
and performance – making a professional matrix solution more
accessible and easier to use than ever before, for a wide range
of applications and users of all levels.**

**"REMI (REMote Integration) production was already a working concept.
Using RTS ODIN as the core of our communications systems played
a key role in helping us make that pivot."**
-John Steigerwald, Broadcast Management Group

● Front management ports for connecting a laptop

16 connectors for analog keypanels
or bidirectional audio

General-purpose Input/output
terminal block for four relay outputs
& four optocoupled inputs ●

Inter-Frame Link
(IFL) connectivity ●

External word
clock input ●

Dual RJ-45
digital audio
connectors ●

● Two IEC power connectors for
connection to redundant power supply

Built-in connectors
for analog partyline ●

Connector for
PAP/LCP/GPIO ●

Connectors for
SFPs – hook
up digital
audio via
optical fiber ●

Rear management ports for RVON &
connecting a laptop, respectively ●

■ Glitch-free available for the most clear and reliable
communication
■ Compact 1RU form factor makes ODIN perfect for OB
vans and other applications where space is at a premium
■ OMNEO media networking architecture built-in with
support for ST 2110, AES67, and Dante™ from Audinate
■ 16 analog keypanel connectors
■ Single unit scalable from 16 to 128 ports
■ Port expansion via software upgrade
■ Up to eight units can be optically interconnected for a
total of 1024 ports

■ Color display with intuitive graphical user
interface based on icons
■ Redundant power supplies
■ Two XLR connectors for wired partyline in
one of three user-selectable formats
■ Less than 50 watts of power, reducing the
need for cooling
■ 16 RVON channels per unit with support for
G711/G722 codecs

● **FLEXIBLE**
**REDUNDANCY OPTIONS**

Multiple flexible redundancy options are
available for multi-frame ODIN systems:
Backup and Restore, Frame Swap and
Redundant Frame Operation.

The Backup and Restore function in RTS
AZedit software can be used to upload and
save the complete configuration of an ODIN
frame to a file, from where it can be applied
to another frame. This option is useful when,
for example, two frames in two separate
OB trucks need to be linked together for a
production; afterwards, each can be easily
restored to their previous settings.

Frame Swap is used to replace a single frame
in a multi-frame ODIN intercom system. It
is similar to Backup and Restore, but it is
performed via the front control panel and
does not involve AZedit.

Redundant Frame Operation supports
two modes: One-to-One Redundancy and
Intelligent Redundancy. In either mode the
system can be configured for automatic
transfer of control or manual transfer.

# SOFTWARE

RTS software provides complete control over your intercom system from any standard Windows computer. Configure keypanel settings, assign user rights and even link matrices together that are thousands of miles away.

"It's all software based, so all I have to do is tell the system what I want to redefine it. And it's still all done with AZedit software, so there's almost no learning curve for our people. It's amazing."
- John Steigerwald,
Broadcast Management Group

# MATRIX
## AZEDIT

Intercom system configuration has never been easier with the advent of AZedit matrix control software. AZedit is a Windows-based, full-featured configuration software, providing online and offline configuration capabilities. It gives you the ability to manage multiple intercom systems, assign and reassign users to different ports, as well as dynamically add intercom hardware to your system setup without jumper changes, rewiring or taking the system offline. AZedit has the capability to load pre-set configuration files, which means saved configurations can be uploaded to the live application at anytime without interruption. AZedit can be used as a monitor tool to observe the status of features, such as gain and crosspoint settings, keypanel keys activated and other aspects of the system. AZedit can run in multiple sessions using the MCII-E ADAM master controller to allow for remote system configuration. AZedit is updated regularly to provide users with the latest features and innovations available.

## IPEDIT

IPedit is a Windows-based GUI application for configuring and displaying RVON and OMNEO devices connected to your matrix system. IPedit is to IP products as AZedit is to ADAM, ADAM-M and ODIN. An enhanced version of IPedit is available, which can configure multiple network devices simultaneously.

# KEYPANEL
## CONTROL & AUDIO SOFTWARE

**Configuration upload/download:** remotely configure any keypanel and edit/save keypanel configurations in AZedit software

**Supervisor mode (keypanel mirroring):** remotely configure any keypanel, adjust volumes and other parameters in real-time on target panel from a supervisor panel

**Real-time volume control via AZedit software:** ensures that users can always hear verbal instructions, even if their volume is turned to zero

**Downloadable screensaver:** download a screen saver that is specific to you or your organization

**Downloadable chimes:** download a set of chimes that is specific to you or your organization

## AUDIO SOFTWARE PACKAGE

**Five-band equalizer:** adjust volume level within five pre-defined frequency bands; users can fine-tune audio to their individual preferences

**Noise gate:** adjust as required to reduce fatigue-causing line noise

**OMNEO AUX Input:** The Audio Software Package also provides six OMNEO AUX inputs in addition to the two standard inputs, giving you more configuration options for your matrix environment.

**Voice mail:** leave messages for other users

**Additional compression ratios:** offer more flexibility. In noisy environments, audio quality can be improved by the amount of compression. This option adds additional compression ratios of 4, 5, and 6 to the standard 1:1, 2:1, and 3:1.

## RVON G.722 CODEC SOFTWARE

**RVON Codec:** The field-proven RVON (RTS Voice Over Network) technology for VoIP enables communication between users across long distances, using G.711, G.729 or high quality audio G.722 codec, users can select based on their application.

KP-Series users may now connect to matrices equipped with a suitable RVON interface, such as the RVON+ for ADAM/ADAM-M, or an ODIN via G.722 high quality audio codec (requires optional G.722 software license for KP-Series) in addition to the standard G.711 and G.729 codecs. The codec can also be installed on all RTS keypanels with an Ethernet connection.

ODIN and/or ADAM/ADAM-M equipped with RVON+ have all three codecs on board right away, allowing for high quality audio long distance tie-lines between matrices, which is often used for trunking applications.

**VLINK.** VLink is an IP-software multi-channel / multi-access communications solution that intelligently connects to RTS intercoms, creating the optimal fusion of hardware and software capabilities. **Learn more on Page 12.**

# RTS
# KEYPANELS

RTS keypanels represent the ultimate in compact, fully-programmable user stations. KP-Series keypanels deliver superior digital audio using the Bosch-developed OMNEO which includes Audinate's Dante audio over IP technology, via either copper or fiber. The KP-Series provides high-quality audio, free of noise, delay and other artifacts present in older technologies. The family includes a rich set of connectors as standard, including GPIO and rear connection. As with other RTS products, emphasis has been placed on backward compatibility with previous generations of matrices including analog technology.

KP-Series keypanels utilize the latest generation of wide angle TFT displays, providing superior clarity, resolution and longer display life, along with high-quality readability under a variety of lighting conditions.

The OMNEO media networking architecture has full support for ST 2110, AES67, as well as the broadly available Dante™ from Audinate.

## KP-SERIES

- OMNEO Open Media Networking Standard – the new KP-Series is future-proof and so is your communication. The unparalleled flexibility features automatic hardware recognition plus the technology of OMNEO, so you get full backward compatibility and easy scalability.

- Out with the old, and in with the more intuitive. The new design and an enhanced user interface enable easier understanding and improved operation. The software provides simple and intuitive navigation of menus, with the most commonly used features easily accessible.

- Advanced Signal Processing and AD/DA – get high-quality audio transmission every time. The new keypanel family features two echo cancellation modes, plus quick AD/ DA conversion – ensuring ultra-low latency and reducing noise, echo, delay and other artifacts present found in older technologies.

- User-Friendly, High-Res Color Display – get high quality, inside and out. The new KP-Series keypanels feature a unified design, with better color, contrast, resolution and viewing angle for an improved visual experience. Plus, multiple controls through ergonomically-designed levers. Pushbutton versions are also available.

- Backward compatibility – all KP-Series keypanels are compatible with older technologies such as analog audio.

- Standardized connectors – all previous hardware connector options (RC, GPIO, and ancillary items) are now standard on the 4000 and 5000 series of KP-Series products.

- Enhanced navigation menus – optimized for ease of use.

- High-performance Audio and Control Software Packages for KP-5032 and KP-4016 keypanel models including the DKP-4016 desktop keypanel. The software packages new features like keypanel mirroring, voicemail, customization, and more.

- Reduced power consumption – the power utilization of the KP-Series keypanels is reduced to almost fifty percent compared to older keypanels.

# KP-SERIES KEYPANELS

**DKP-4016**
16-POSITION HD COLOR DISPLAY DESKTOP/WALL-MOUNT KEYPANEL

**KP-5032***
32-POSITION HD COLOR DISPLAY KEYPANEL

**KP-3016**
ONE RACK UNIT KEYPANEL, 16 OPERATION KEYS WITH ANALOG AND IP (OMNEO/DANTE OR RVON) MATRIX INTERFACE

**KP-3016A**
ONE RACK UNIT KEYPANEL, 16 OPERATION KEYS WITH ANALOG MATRIX INTERFACE ONLY. DOES NOT SUPPORT RVON OR OMNEO.

**KP-4016***
16-POSITION HD COLOR DISPLAY KEYPANEL

**EKP-3016**
ONE RACK UNIT EXPANSION KEYPANEL,16 OPERATION KEYS FOR KP-3016 AND KP-3016A

**EKP-4016***
16-POSITION HD COLOR DISPLAY EXPANSION PANEL

Connect up to 6 (KP-5032) or up to 7 (KP-4016) expansion panels for a maximum of 128 talk / listen keys.

**DKP-3016**
16-POSITION HD COLOR DISPLAY DESKTOP/WALL-MOUNT KEYPANEL

Also available as a wall mount version, the DKP-3016W.

*Available in lever key or pushbutton

## KEYPANEL COMPARISON

| Family | KP-3016A | KP-3016 | DKP-3016 | DKP-4016 | KP-4016 | KP-5032 | KP-4016 PB | KP-5032 PB |
|---|---|---|---|---|---|---|---|---|
| Form factor | 1RU | | DKP/WM | | 1RU | 2RU | 1RU | 2RU |
| Input device | Lever | | | | | | Pushbutton | |
| Talk | Lever | Lever | Lever | Lever | Lever | Lever | Pushbutton | |
| Listen | Lever | Lever | Lever | Lever | Lever | Lever | LSTN + Pushbutton | |
| Keys (KP / DP) | 14 | | 16 | | 14 | 32 | 14 | 32 |
| Keys (Exp) | 16 | | Not applicable | | 16 | | | |
| Cross Point Vol. | Knob | | | Lever | Lever | Lever | Pushbutton + Aux knob | |
| Anti-glare lens | No | | Yes | | Yes | | | |
| Dialing pad | No | | | | Yes | | | |
| TCP/IP Layer 3 Dante compatible | No | | Yes, OMNEO | | | | | |
| Redundant IP conn. | No | | Yes: RSTP, glitch free, and ST 2022-7 | | | | | |
| Front self-sensing hdst inp. | Yes | | | | | | | |
| Power (W), nominal | 8 | 11 | 25 | | 12 | 13 | 12 | 13 |
| Aux inputs | No | | | 1 | 2 standard, 8 with software license | | | |
| Ext mic input | No | | | | Yes | | | |
| Hdst connector | 1 | | 2 | | 2 | | | |
| Line out / mic out GPIO-connector | No | | Yes | | | | | |
| Power supply | External | | Internal | | External | | | |
| Output for ext. speaker | No | | | | Yes | | | |
| OMNEO (RJ-45) | No | | 1 | | 2 | | | |
| OMNEO (for SFP) | No | | | | 1 | | | |
| Backward compatible | Yes | | | | | | | |
| Firmware can be upgraded | Yes | | | | | | | |
| Accepts RVON codec firmware | No | | Yes | | | | | |
| Enhanced feature licensing | No | | | | Yes | | | |

**DIGITAL BELTPACK KEYPANEL MODE.**
Digital Beltpack (DBP) also has a Keypanel Mode within the RTS ecosystem.
**Learn more on Page 38.**

## UPGRADES

Audio and Control Software Packages for KP-5032 and KP-4016 keypanel models including the DKP-4016 desktop keypanel. The software packages add features like keypanel mirroring, voicemail, customization, RVON G.722 via firmware license, and more.

## ACCESSORIES

**MCP-90-X**
ELECTRET GOOSENECK MICS

The MCP-90-x gooseneck mics are the standard gooseneck intercom mic for all RTS keypanels. Available in various length from 0" to 18". All versions use a electret mic element.

- MCP-90-0 (0")
- MCP-90-8 (8")
- MCP-90-12 (12")
- MCP-90-18 (18")

**WKP-1***
WALL-MOUNT KEYPANEL

WKP-1 offers simplified operation and integrates seamlessly with RTS digital intercom systems. The physical size and weather-resistant design provides a flexible and robust intercom system. WKP-1 fits a standard US dual gang electrical box.

***NOT AVAILABLE IN ALL REGIONS.**
Contact RTS for more information.
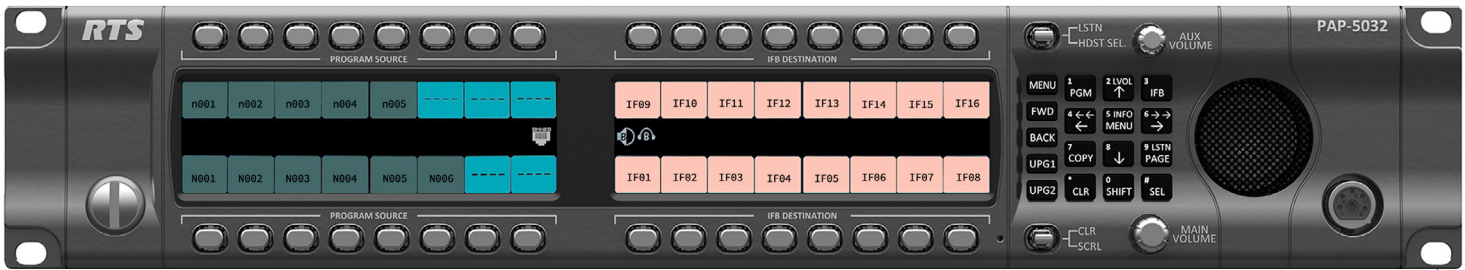
# DIGITAL MATRIX PERIPHERALS

RTS offers a full line of peripheral products to complete your communications system, including interfaces to party-line intercoms, telephone lines, and relays. Accessories also include control panels for IFB levels and assignments, panels for adjusting system audio levels, and microphones.

TIF-PRO2

OEI-2

PAP5032

## TIF-PRO2
### VOIP TELEPHONE INTERFACE

A replacement for the successful SIP-ISDN, the TIF-PRO2 provides increased IP/digital/analog connection density in a compact half-rack-unit form factor. The device offers seamless interoperability with the latest RTS IP/digital keypanels and matrices, along with legacy IP/digital/analog RTS intercom hardware. It comes equipped with two SIP IP lines, each with a 64 Kbps data rate.

## OEI-2
### OMNEO IP EXTERNAL INTERFACE

The OEI-2 enables connectivity between analog audio sources and legacy RTS keypanels and an OMNEO network. This allows users to maintain existing infrastructure and the equity of their original equipment investment while updating to high-performance OMNEO media networking architecture. Utilizing standard IP Ethernet infrastructure, OMNEO-equipped products can be assembled into networks of 2 to 10,000 cooperating devices that share common control systems. OMNEO sets new industry standards for audio communications by offering unparalleled scalability and future-proof expandability; studio-quality synchronized multichannel audio;the most robust, reliable, and secure control protocol suite available; ultra-low latency; and the support of DHCP protocols. The compact, mountable OEI-2 is designed for quick installation and easy operation, and supports all RTS analog keypanels.

## PAP-5032
### OMNEO-CAPABLE PROGRAM ASSIGN PANEL

The PAP-5032 provides the user with the ability to assign multiple program sources to over 16 different IFB destinations. The PAP-5032 can be extended to up to 64 program sources and 64 IFB destinations via standard EKP expansion panels. The PAP-5032 works with ADAM, ADAM-M, and ODIN matrix systems.

**Software options:**

▶ TIF-PRO2 2-channels PSTN upgrade.
▶ 2 x RX and 2 x TX AES67 channels (DANTE/RAVENNA compatible via SAP)
▶ Configuration & operation for additional workplaces (one license is already included in the system delivery).

**Interfaces**

| Model name | Description |
|---|---|
| ARNI E & ARNI S | Audio routed network interface |
| DSI2008 | Digital system-to-system adapter |
| FMI-4 | Multiplexer with 4 RTS four-wire intercom ports |
| FMI-8 | Multiplexer with 8 RTS four-wire intercom ports |
| GPIO-16 | General purpose input/output interface |
| OKI-2 | OMNEO keypanel interface card-2 |
| RVON-I/O | VoIP interface for KP-32 classic keypanels |
| TIF2000A | Single-line digital telephone interface |
| TIF4000 | Multi-line telephone interface |

# LICENSE-FREE
# WIRELESS KEYPANEL

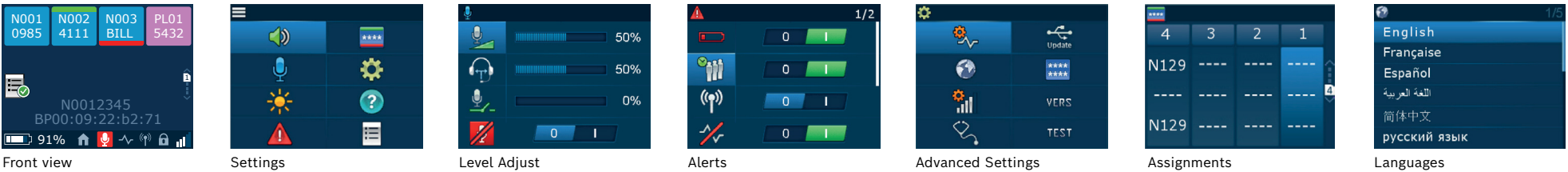The ROAMEO wireless intercom system from RTS is a professional, easy-to-use and future-proof solution based on the license-free DECT (Digital Enhanced Cordless Telecommunications) standard. ROAMEO provides high-quality audio and a large number of simultaneous users across wide areas over a seamlessly integrated digital wireless beltpack and associated access points. ROAMEO can solve a series of communication challenges by operating like a wireless keypanel in the field which is easy to use and easy to expand. Additionally, wireless beltpacks can be directly addressed as part of a wired RTS matrix intercom system.

Reply

Call Waiting Window

Clear

Talk/Listen
for four channels

Volume

320x240 pixel
color display

Navigation
Buttons

5-pin XLR
headset connector

USB port

Power jack

On/Off

3.5mm aux
input connector

Headset
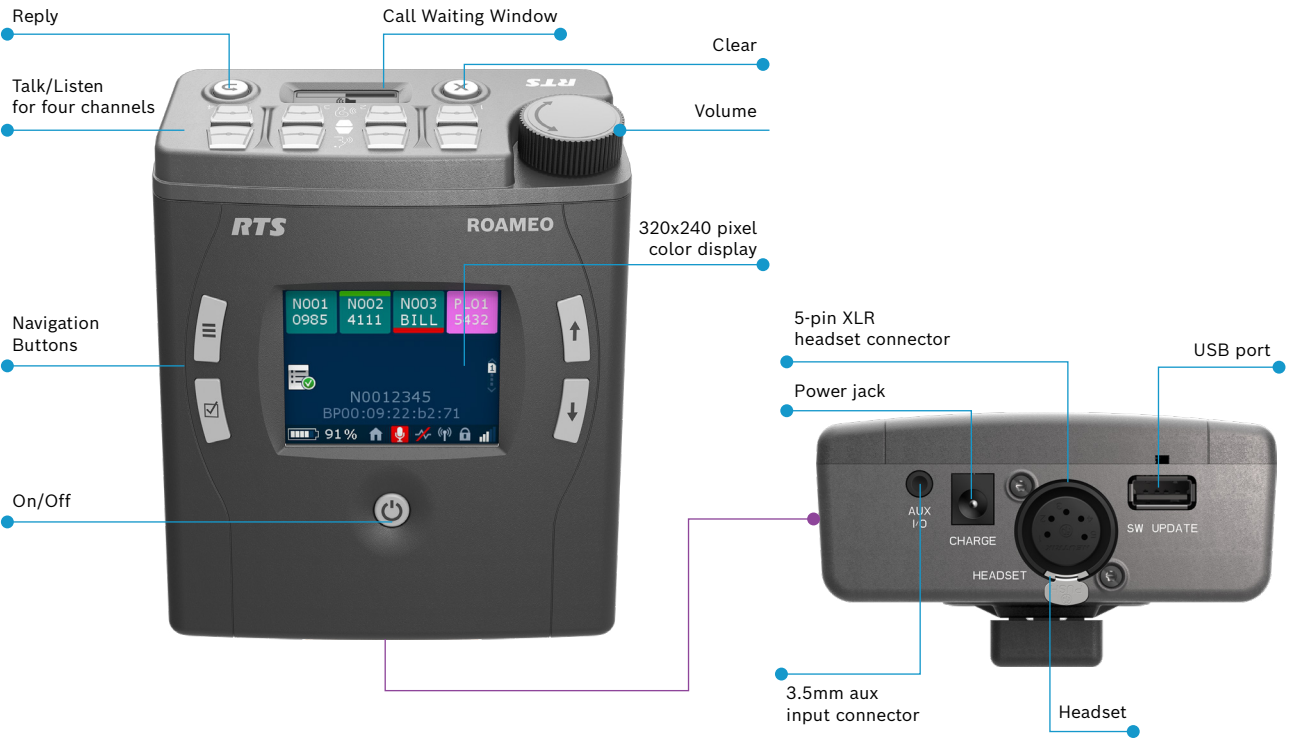
## ROAMEO
**TR-1800 & AP-1800**

ROAMEO provides a superior user experience – the system can be easily configured in a multi-language set-up via scroll lists on the TR-1800 beltpacks or using the control software AZedit, which allows users to configure the complete intercom system on one screen.

Thanks to its large color LED-display and intuitive icon-based menu structure, the TR-1800 beltpack is very easy to set up and operate. With its lightweight, durable housing, the beltpack features the smallest enclosure in its class and is protected against dust and light rain.

Front view

Settings

Level Adjust

Alerts

Advanced Settings

Assignments

Languages

| Model name | Description |
|---|---|
| AP-1800 | Access point 1.92 – 1.93 GHz |
| AP-1800 EU | Access point 1.88 – 1.90 GHz |
| TR-1800 | Beltpack 1.92 – 1.93 GHz |
| TR-1800 EU | Beltpack 1.88 – 1.90 GHz |
| TR-1800 Holster | Holster for TR-1800 & TR-1800 EU |
| 24-PSE | Spare power supply for TR-1800 & TR-1800 EU |
| ANT1800 | Spare antenna (qty 1) for AP-1800 & AP-1800 EU |
| AP1800 MT BRKT | Pole mount kit for AP-1800 & AP-1800 EU |
| BP-240 | Spare Lithium battery for TR-1800 & TR-1800 EU |
| IP06S60 | Ultra high-power 90 W POE injector / 60 W POE splitter |

## AP-1800
### LICENSE-FREE 5/10CH DEVICE

Connection to a digital matrix is easily established via a single Ethernet cable; the access points can be daisy-chained. The AP-1800 access point is IP-53 rated with a durable aluminum enclosure and designed for a minimum of spatial requirements on vertical or horizontal wall surfaces. The AP-1800 access points convert the DECT signals into Dante-compatible OMNEO IP-technology, thereby providing the highest interoperability, flexibility, reliability and resilience.

## POE SPLITTER
### 12V 60W POE POWER KIT FOR AP-1800

The PoE Power Kit for the AP-1800 is a full 60W, industrial, PoE (Power over Ethernet) splitter solution that splits out DC power from the DC + data of the Ethernet network, which eliminates the need for a local power supply. This adds PoE functionality to non-PoE devices that have a power consumption up to a full 60W. The PoE splitter is perfect for network devices that need higher power.
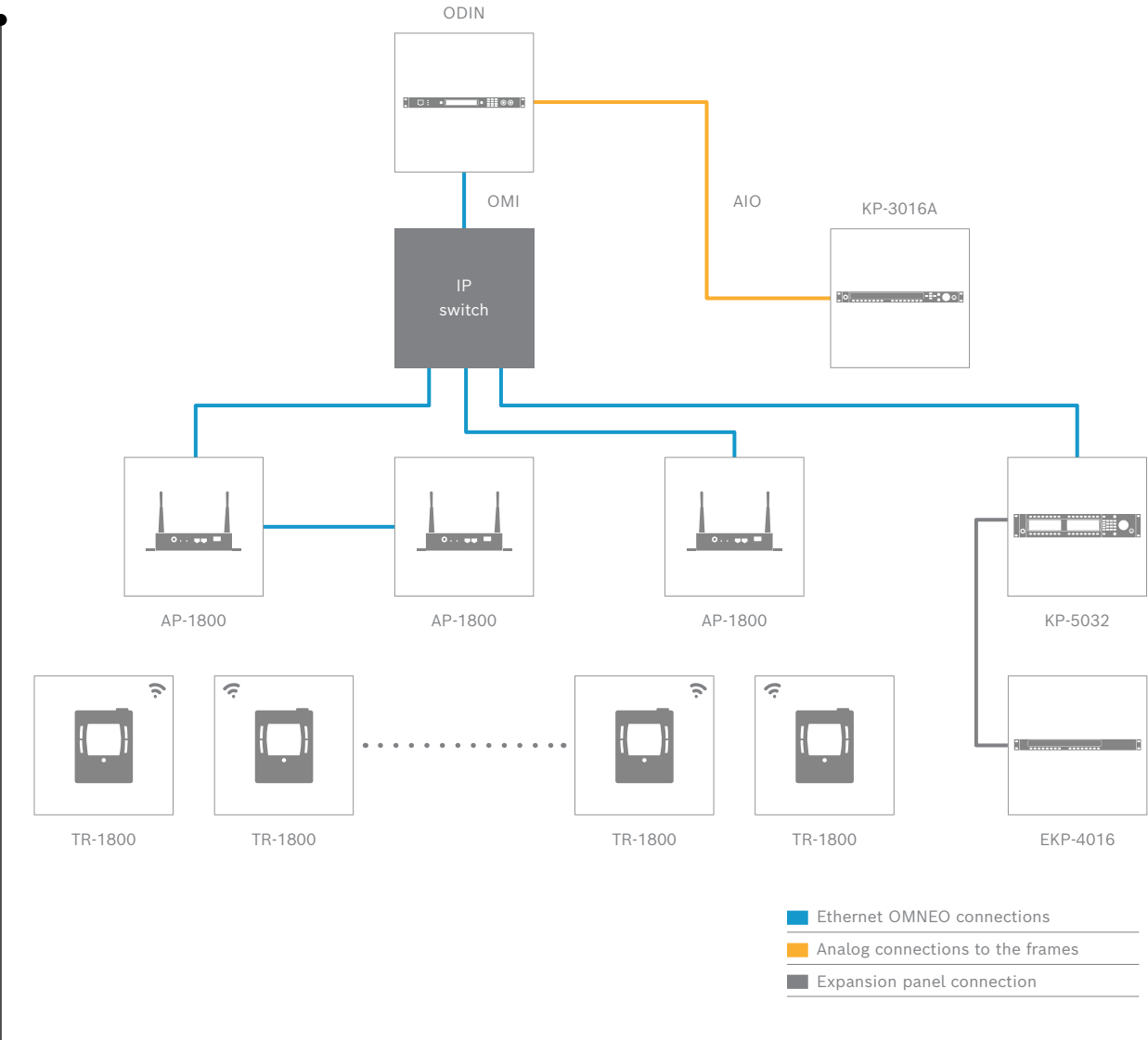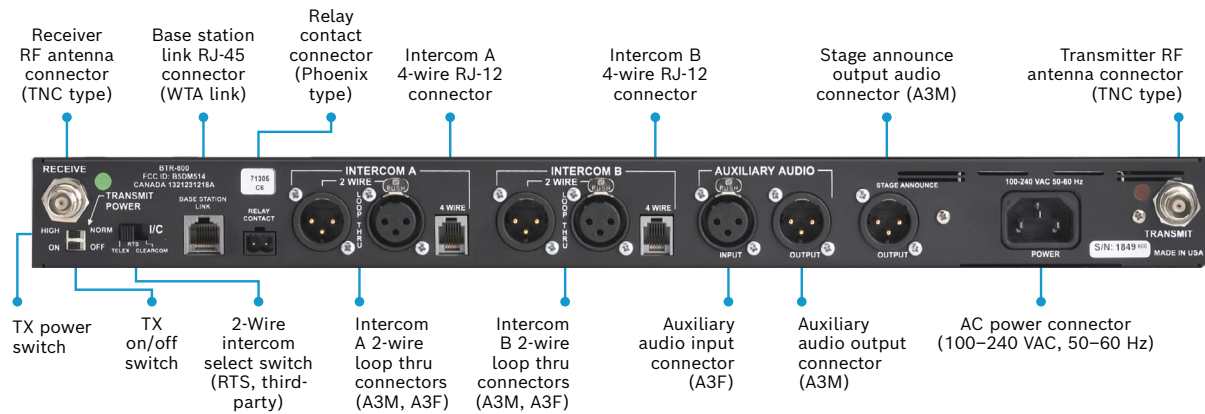
## EXPANDING THE SYSTEM

ROAMEO's cellular structure can cover a wide area with superior audio and seamless roaming between the individual cells. Each cell requires an AP-1800 access point and covers a specified area and number of beltpacks, depending on the audio codec used. Each AP-1800 has a built-in IP switch that adds multiple streams together in the same cable and will configure itself automatically. Users can easily expand the coverage area by adding additional access points, while additional wireless beltpacks can be directly addressed as part of a wired RTS matrix intercom system.

Users can easily expand the coverage area by adding additional access points, while additional wireless beltpacks can be directly addressed as part of a wired RTS matrix intercom system. Depending on the audio codec used, users can select between a higher emphasis on voice quality (G.722 enhanced bandwidth with 7k audio) or a more efficient use of the radio spectrum with a higher number of beltpacks (G.726 narrow-band).

The DECT-based ROAMEO system is an environmentally friendly system without any dangerous emissions at low radiation. It is compliant with the US environmental regulation N33.6.

ODIN

OMI · AIO · KP-3016A

IP switch

AP-1800 · AP-1800 · AP-1800 · KP-5032

TR-1800 · TR-1800 · TR-1800 · TR-1800 · EKP-4016

■ Ethernet OMNEO connections
■ Analog connections to the frames
■ Expansion panel connection

# UHF
# WIRELESS
# INTERCOMS*

**Receiver RF antenna connector (TNC type)** · **Base station link RJ-45 connector (WTA link)** · **Relay contact connector (Phoenix type)** · **Intercom A 4-wire RJ-12 connector** · **Intercom B 4-wire RJ-12 connector** · **Stage announce output audio connector (A3M)** · **Transmitter RF antenna connector (TNC type)**

**TX power switch** · **TX on/off switch** · **2-Wire intercom select switch (RTS, third-party)** · **Intercom A 2-wire loop thru connectors (A3M, A3F)** · **Intercom B 2-wire loop thru connectors (A3M, A3F)** · **Auxiliary audio input connector (A3F)** · **Auxiliary audio output connector (A3M)** · **AC power connector (100–240 VAC, 50–60 Hz)**

**Rear view of BTR-800**

## BTR-800*
### UHF SYNTHESIZED WIRELESS INTERCOM 2CH BASE STATION

The RadioCom BTR-800 UHF-synthesized wireless intercom systems offer the ultimate in reliable, high-performance, high fidelity full-duplex communications. The BTR-800 system includes the BTR-800 frequency-agile base station, working with up to four TR-800 or TR-825 frequency-agile beltpacks. The BTR-800 base station provides full-duplex communications with the beltpacks.

## TR-800*
### UHF WIRELESS INTERCOM 2CH BELTPACK

Individual volume controls also allow for easy level adjustment. The TR-800 has an all metal cast magnesium case, an LCD based graphical user interface, stage announce activation, wireless talk around (ISO) activation, enhanced ClearScan, detachable antennas and an auto-sensing headset connector that automatically switches between electret and dynamic headset mics.

## TR-825*
### UHF WIRELESS BINAURAL INTERCOM 2CH BELTPACK

The RTS TR-825 is a Two-channel UHF frequency-agile wireless beltpack for use with the BTR-800. The TR-825 is a dual listen and dual talk beltpack, allowing you to listen to "Tech" in one ear and "Production" in the other. Individual volume controls also allow for easy level adjustment. The TR-800 has an all metal cast magnesium case, an LCD based graphical user interface, stage announce activation, wireless talk around (ISO) activation, enhanced ClearScan, detachable antennas and an auto-sensing headset connector that automatically switches between electret and dynamic headset mics.

**\*NOT AVAILABLE IN ALL REGIONS.**
**BTR-800/TR-800/TR-825:** 470–608 MHz, 614–722 MHz in 18 MHz TX and RX bands. Licensing of this equipment is the user's responsibility and ability to license depends on the user's classification, user's application and frequency selected. Contact RTS for more information.

| Model name* | Description |
|---|---|
| TR-80N | UHF narrow band synthesized wireless intercom 2CH portable beltpack |
| TR-82N | UHF narrow band binaural synthesized wireless intercom portable 2CH beltpack |
| AB-2 | Universal bracket for ¼ wave antenna with 10' coax cable |
| ACS-101 | Broadband antenna combiner-splitter |
| ALP 600M | ALP-600 telescoping antenna mast |
| ALP-450 | UHF directional antenna |
| ALP-600 | UHF bi-directional antenna |
| ALP-600B | ALP-600 antenna bracket kit |
| ALP-700 | Bi-directional log periodic antenna. Covers 470-760 MHz. |
| APS1 COMB_SPLT | Broadband antenna combiner-splitter |
| BC800NM4* | Four-bay charger with NiMH battery packs |
| BP800NM | NiMH battery pack |

# WIRELESS IFB*

## BTR-80N*
**UHF NARROW BAND SYNTHESIZED WIRELESS INTERCOM 2CH BASE STATION**

The RTS BTR-80N Narrow Band 2-Channel UHF Synthesized Wireless Intercom System is a revolutionary product offered in today's ever-changing and shrinking RF environment. Providing an unprecedented 25 kHz of modulated band width, the BTR-80N narrow band system will allow more users per channel in the cramped UHF spectrum. The BTR-80N provides excellent audio performance and provides all of the standard features of the award winning RTS BTR-800 system, such as DSP digital processing and Intelligent Power Control.

**The TT-16 is designed to provide a convenient wireless link to on-air talent in the studio or in the field at remote locations. Operating in the low band VHF 64-68 MHz range (TV CH3 and 4), the units operate reliably at distances of over 750 feet. In unoccupied television channels, up to five TT-16 transmitters will operate simultaneously within the same location.**

## TR-16*
**16CH BROADCAST WIRELESS IFB TRANSMITTER**

The TR-16 is designed with a 3.5mm earphone connector, to be used with standard IFB earpieces such as the RTS Telethin announcers earpiece systems or any other 8-500 earphone. The TR-16 receiver features a selectable high frequency boost control to equalize the high frequency loss associated with the use of behind the collar acoustic tubes and earphone drivers.

## TT-16*
**16CH BROADCAST WIRELESS IFB TRANSMITTER**

A backlit LCD display allows the user to select the RF channel used, change Hi-Low RF transmit power, select intercom input source and adjust the input levels. A new feature, Enhanced Dynamic Range (EDR), greatly improves the signal to noise ratio, and works with the TR-16 talent receiver to provide clearer, more dynamic audio.

**\*NOT AVAILABLE IN ALL REGIONS.**
BTR-80N/TR-80N/TR-82N: 482–722 MHz (TV 16 to TV 36 and TV 38 to TV 52). Licensing of this equipment is the user's responsibility and ability to license depends on the user's classification, user's application and frequency selected. Contact RTS for more information.

**\*NOT AVAILABLE IN ALL REGIONS.**
Contact RTS for more information.

**CLEAR.
COMPACT.
COMPATIBLE.**

DSPK-4

DIGITAL BELTPACK

OMS

| VERSATILE | A BRIDGE FROM ANALOG TO DIGITAL AND IP | SCALABLE |
| --- | --- | --- |
| Dante OCA AES67 SMPTE OMNEO onboard | | |

| DAISY CHAINING | USER FRIENDLY | HYBRID FUNCTIONALITY |
| --- | --- | --- |

# RTS DIGITAL PARTYLINE

**RTS Digital Partyline is a versatile and cost-effective product family that connects IP, digital, and analog devices with high-quality digital audio and a user-friendly experience. It differs from other systems in the market by bridging all standards and formats. Utilizing OMNEO IP technology, it can interconnect with various RTS Digital Matrix products and legacy equipment, allowing users to transition to an IP infrastructure without the complexity of a matrix system while preserving their existing analog partyline hardware. Suitable for AV rental, broadcast, entertainment, houses of worship, and theaters.**

Channel volume control
Channel call button — Encoder 1 — Encoder 2 — Keypad — Speaker

Panel mic connector
Channel listen button — Color display — Reset hole
Channel talk button — Main volume control — Headset connector

Stage announce output — GPIO connector — Control port — Dual OMNEO SFP provision

Power connector — Two-wire analog partyline connectors — Program inputs — Four analog input/output connector — RVON connector — Dual OMNEO RJ45 connectors
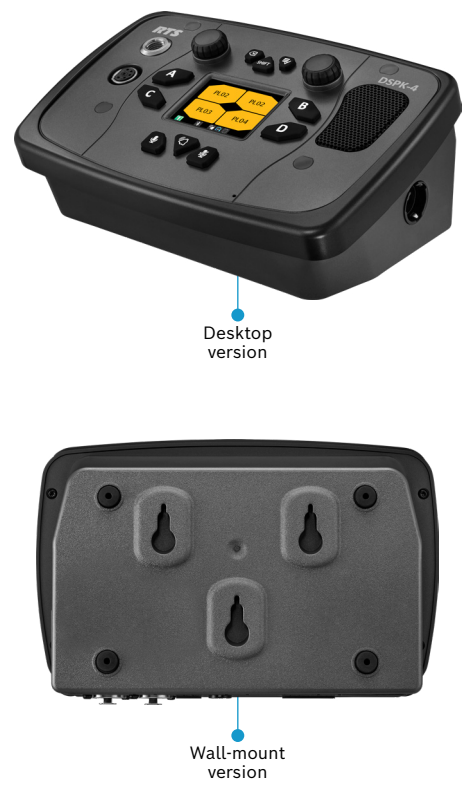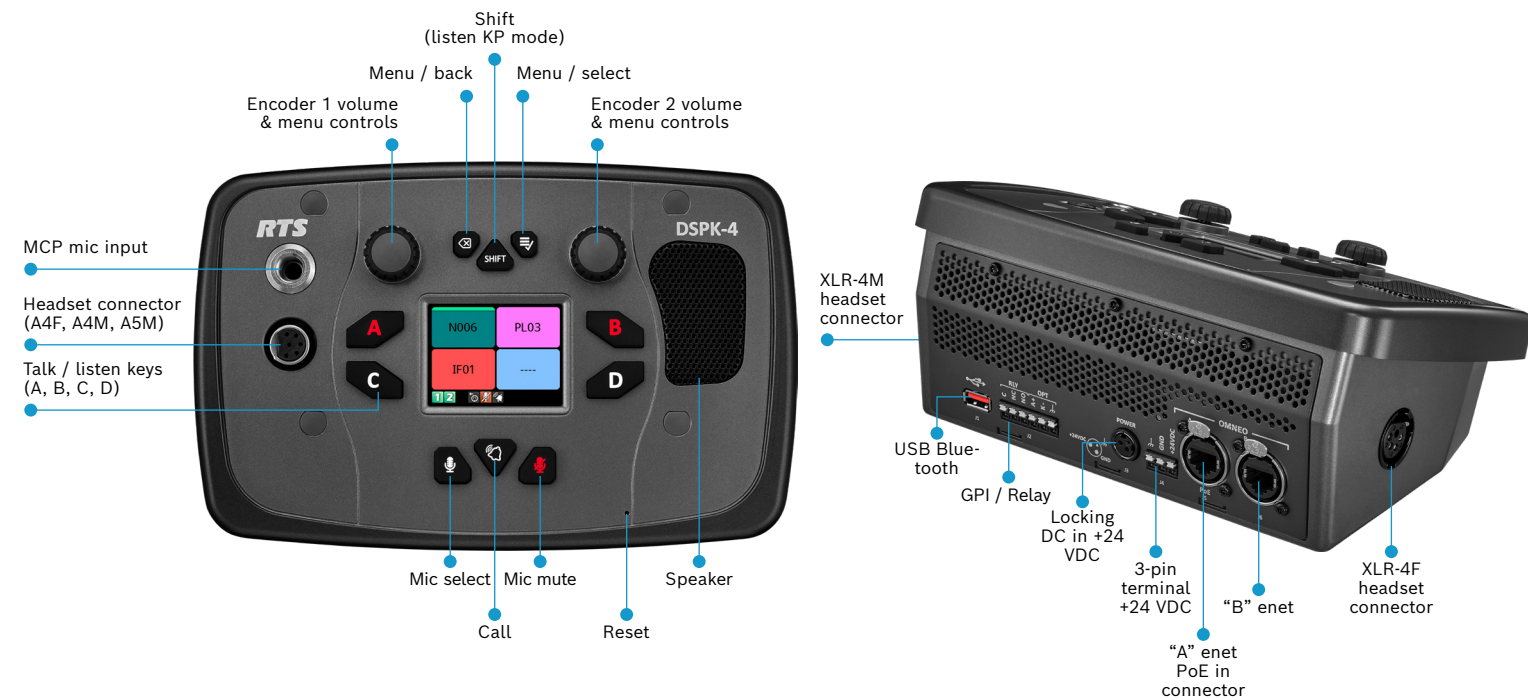
# OMS
## OMNEO MAIN STATION

OMS is a communications multi-tool for a wide range of customers, including theaters, houses of worship, broadcast, AV rental, industrial facilities and entertainment/event venues. It is available in five licensed configurations to suit the user's budget and application requirements: Advanced, Intermediate and Basic digital (each with OMNEO); Analog Plus and Analog (main station options for analog-only partyline systems).

Presented in a compact 1RU enclosure, OMS is a uniquely versatile and cost-effective solution capable of interconnecting both wired/wireless and IP/digital/analog devices. Full TCP/IP connectivity is supported. Whereas current systems on the market offer analog-only, digital-only, proprietary or non-Dante-compatible products, OMS encapsulates the RTS philosophy of bridging all standards and formats.

# DSPK-4

Shift
(listen KP mode)

Menu / back     Menu / select

Encoder 1 volume
& menu controls

Encoder 2 volume
& menu controls

MCP mic input

Headset connector
(A4F, A4M, A5M)

Talk / listen keys
(A, B, C, D)

DSPK-4

N006    PL03

IF01    —

A    B
C    D

Mic select    Mic mute    Speaker

Call    Reset

XLR-4M
headset
connector

USB Blue-
tooth

GPI / Relay

Locking
DC in +24
VDC

3-pin
terminal
+24 VDC

"B" enet

"A" enet
PoE in
connector

XLR-4F
headset
connector

Desktop
version

Wall-mount
version

Flush-mount
version

## DSPK-4
**DIGITAL SPEAKER STATION**

The DSPK-4 is ideal for new users or current partyline users looking to grow from analog systems into the superior sound quality and flexible connectivity of digital/IP communications, in verticals such as broadcasting, theaters/live entertainment, houses of worship, educational facilities, industrial facilities, event production and AV rental. Because it offers both digital partyline and matrix keypanel modes, DSPK-4 also offers excellent ROI for customers with existing RTS matrix intercom equipment. For example, users such

as broadcast networks and industrial facilities can expand their comms inventory cost-effectively with RTS Digital Partyline – all while continuing to leverage the scalability of their existing matrix equipment. And, in addition to increased fidelity and a lower noise floor in comparison to analog, the DSPK-4's Dante™ digital audio quality permits natural conversation levels and dynamics, free from feedback and latency – all of which can add value by ensuring communications run smoothly during day-to-day operations.
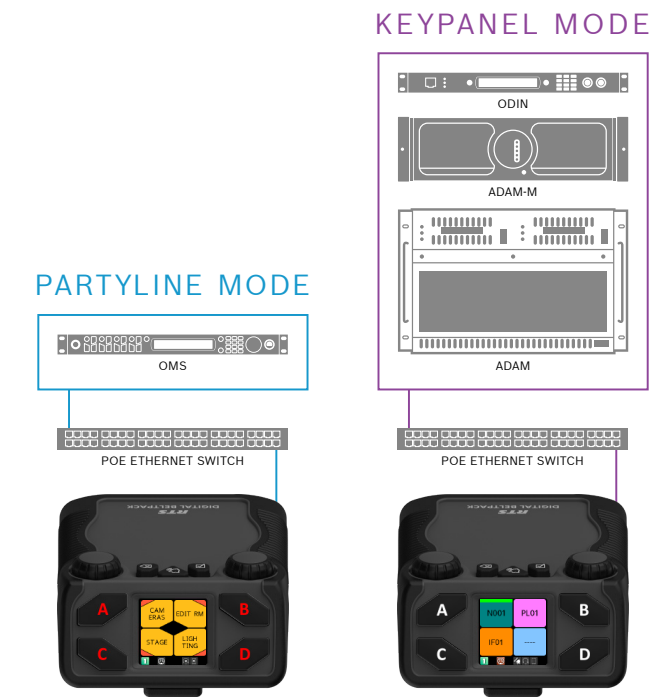
# DBP

Talk keys (A,B,C,D)

Display screen

Lanyard loop

Master &
key B and
D volume
control

Master &
key A and
C volume
control

Select
button

CLR / back
button

Call button

DIGITAL BELTPACK

PoE out
connector

AUX
connector

Belt clip

Covered
USB port for
Bluetooth®
connectivity

Headset connector
(4-pin female and
male options also
available)

PoE in
connector

## DBP
**DIGITAL BELTPACK**

The DBP provides TALK and LISTEN capability for up to four configurable audio conferences. It runs on PoE (Power over Ethernet 802.3af and 802.3at) and connects using OMNEO IP technology (Dante, and more). Its unique hybrid design supports both digital partyline and matrix keypanel modes: for use as a digital partyline device, DBP connects to an OMS; for use

as a portable keypanel, including functionality like point-to-point communication, DBP can be connected to any RTS digital/IP matrix product using OMNEO – including OMI cards in ADAM/ADAM-M frames or OMNEO ports on ODIN frames. DBP automatically selects the correct mode of operation (digital partyline/OMS or keypanel/matrix) when connected and switched on.

**KEYPANEL MODE**

ODIN

ADAM-M

ADAM

**PARTYLINE MODE**

OMS

POE ETHERNET SWITCH

POE ETHERNET SWITCH

# RTS TWO-WIRE

RTS TW's innovative intercom systems have been the industry standard "can't fail" communications system for over 30 years. Our 2-channel on standard microphone cable technology offers users a distinct competitive advantage. With countless installations in studio broadcast, remote production, board rooms, theaters, arenas, stadiums, training facilities and many venues, we have the time proven technology that professionals rely on to stay connected.

## POWER SUPPLIES

The power supplies are the heart of the partyline system, providing operating voltage to beltpacks and user stations. RTS' unique, short-circuit reset feature and unparalleled mechanical engineering ensure reliable, trouble-free operation.

## INTERFACES

Two-wire/four-wire interfaces connect two-wire intercom lines to four-wire systems.

## USER STATIONS

Rugged and dependable RTS two-wire intercom user stations form the widest variety of stationary communications stations in the industry. RTS two-wire intercom user stations are the perfect choice for a wide range of applications regardless of what physical profile is required.

## PS-20
### POWER SUPPLY

The RTS PS-20 is the RTS Two-Wire Intercom power supply. The PS-20 features two- and four-channel operation, RTS monitoring, two-channel program input, audio linking, and three-mode operation: RTS 2-channel, RTS 4-channel and Clear-Com mode.

It also has high power output, which will increase the number of user stations and beltpacks which can be connected substantially.

○ Analog system-to-system adapter

○ 2CH user station

# SYSTEM COMPONENTS

| Model name* | Description |
| --- | --- |
| PS-20 | Power supply |
| 4025A | 1x4 25 pair, 50-pin passive splitter |
| BOP-1000 | 19" blank mounting frame |
| BOP220 | Breakout panel |
| LMS-325 | 5-watt modular amplified loudspeaker |
| MCS-325 | 5-watt passive modular loudspeaker |
| SAP612 | Source assignment panel |
| TW-5W | 1x5 2CH 3-pin XLR-type passive splitter |
| TW-7W | 1 female XLR-3 into 7 male XLR-3 out |
| MCP-1, MPC-2, MPC-3, & more | Various rack mount kits for rack mounting of devices |

**\*NOT AVAILABLE IN ALL REGIONS.**
Contact RTS for more information.

# TWO-WIRE BELTPACKS

RTS Two-Wire Intercom beltpacks are mechanically engineered to be rugged and dependable and provide maximum voice intelligibility.

## SYSTEM COMPONENTS

| Model name | Description |
|---|---|
| 4030 | 2CH IFB beltpack |
| 4030M | 1CH IFB beltpack "passive device" adapter |
| BP-325 | 2CH binaural programmable beltpack with wired intercom ports |
| BP-4000 | 1CH portable universal beltpack headset station for mobile users |
| BP-5000 | 2CH portable universal beltpack headset station for mobile users |
| IFB-325 | 1CH IFB beltpack |

## BP-325
### 2CH BINAURAL PROGRAMMABLE BELTPACK

The BP-325 is a portable beltpack for use with RTS Two-Wire intercom systems. The BP-325 is a binaural (stereo) programmable two-channel beltpack with program-input capability. The BP-325 is for use with a dynamic microphone only.

## BP-4000
### 1CH PORTABLE UNIVERSAL BELTPACK HEADSET STATION FOR MOBILE USERS

The BP-4000 universal beltpack is a 1-channel portable user station compatible with RTS, Audiocom, and Clear-Com party line systems. The BP-4000 has a mode-sensing system configuration, meaning the beltpack can determine what type of system it is installed into and configure itself according to that system. The BP-4000 can be ordered with either a 4-pin male, 4-pin female, or a 5-pin female XLR connector providing, a wide-range of headset options.

## BP-5000
### 2CH PORTABLE UNIVERSAL BELTPACK HEADSET STATION FOR MOBILE USERS

The BP-5000 universal beltpack is a 2-channel portable user station compatible with RTS, Audiocom, and Clear-Com party line systems. The BP-5000 has a mode-sensing system configuration, meaning the beltpack can determine what type of system it is installed into and configure itself according to that system. The BP-5000 can be ordered with either a 4-pin male, 4-pin female, or a 5-pin female XLR connector providing, a wide-range of headset options.

# AUDIOCOM
# BALANCED
# INTERCOM*

**Audio balanced intercom systems, utilizing industry-leading balanced audio system structure and highly configurable and expandable modular designs, are utilized in virtually every kind of application and venue throughout the world.**

## PS-4001*
**4CH POWER SUPPLY**

The PS4001 power supply supplies four isolated channels of intercom system phantom power to down line components. The PS4001 may be combined with an ES4000A expansion station to create additional intercom channels when using a US2002/PS2001L or US2000A/SPS2001 master station configuration. The PS4001 can also be used as a standalone power supply to provide power to four independent partyline channels. Rack mountable in a variety of modular configurations with one of several optional rack mount kits. Clear-Com compatible.

**\*NOT AVAILABLE IN ALL REGIONS.**
Audiocom products may not be available for purchase in your particular country or locality. Check with your local RTS authorized dealer, distributor or other representative for the availability of specific products and services in your area.

## BP-4000 A4M
**1CH PORTABLE UNIVERSAL BELTPACK HEADSET STATION FOR MOBILE USERS**

The BP-4000 universal beltpack is a 1-channel portable user station compatible with RTS, Audiocom, and Clear-Com party line systems. The BP-4000 has a mode-sensing system configuration, meaning the beltpack can determine what type of system it is installed into and configure itself according to that system. Multiple programming options are available. To simplify programming, voice prompts guide the user through the menus.

## BP-6000
**UNIVERSAL BELTPACK**

The BP-6000 is a portable user stations compatible with Audiocom and Clear-Com party line systems. The BP-6000 is a 2-channel beltpack equipped with a mode-sensing system configuration, meaning the beltpack determines what type of system it is installed into and configures itself according to the system. Dynamic and electret headset microphones are supported. The loop and line connection both use 6-pin Switchcraft connectors.

## IFB-1000
**1CH BELTPACK**

Portable, single-channel, listen-only beltpack. High-quality audio receive circuit. Rugged low-profile metal case with sturdy belt clip. Recessed volume control. Power on indicator. One 3-pin XLR connector for partyline connection. ¼" phone jack for earphone or earset. Uses same cables and wall plates as BP-4000 and BP-6000. Powered from partyline.

## ICW-6*
**WINDOW INTERCOM**

The ICW-6 represents the ultimate in reliable, rugged, and flexible security and ticket booth communications equipment. Unique audio-shaping circuitry and enhanced VOX (Voice Threshold Level Activation) operation ensure maximum voice intelligibility is achieved. Installation is quick and easy with out 2-piece, super rugged, maintenance-free polycarbonate enclosure.

**\*NOT AVAILABLE IN ALL REGIONS.**
Contact RTS for more information.

# INTERCOM
# HEADSETS
# & EARSETS

## LIGHTWEIGHT
### HEADSETS

The RTS lightweight headsets provide users with an ideal combination of functionality and comfort. The double-sided PH-44 and single-sided PH-88 models offer users an efficient and durable standard headset, one that has become an industry standard. The LH-300 single-sided and LH-302 double-sided models add a headband pad and leatherette ear cushions for additional comfort.

## FULL-CUSHION
### HEADSETS

The PH Series full-cushion intercom headsets have moderate noise isolation and an easily-positioned mic adjusting ball joint. The HR Series features a moleskin covered headband and clamping force adjustment feature designed to distribute pressure evenly over each ear. Both the PH and HR series are durable and offer the ultimate in day-long comfort. They are popular with users in a wide variety of applications.

## MONITOR
### HEADPHONES

The HR-1L & HR-2L are medium-weight, noise reduction headphones with a noise reduction rating of 21 dB. The headsets effectively reduce noise and are suitable for use in moderately noisy environments. All models feature a unique, soft padded headband design that distributes ear cushion pressure evenly over each ear.

## ANNOUNCER
### EARSETS

The popular RTS earsets are precisely designed for inconspicuous listening while on camera. Used by nearly all major television networks and stations, we have surpassed industry standards. The extremely efficient miniature driver element requires only nominal operating power and enables the announcer to hear program cues while working with a live microphone. The units are also suitable for many other applications such as live theater script prompting.

## HS-6A PTT
### HANDSET

The HS-6A is a telephone-style handset that offers a push-to-talk switch, dynamic earphone and dynamic microphone. It is supplied with a metal hanger bracket for vertical storage and is compatible with most user stations. The HS-6A is terminated with an A4F plug. Available in white or black.

# LIGHTWEIGHT HEADSETS

## PH-44
**DUAL-SIDED HEADSET**

## PH-88
**SINGLE-SIDED HEADSET**

The PH-44 and PH-88 headsets have become the industry standard for broadcast communication, offering an efficient and durable headset. A flexible boom allows microphone adjustments to your preferred side.

## PH+ SERIES

### PHS
**SINGLE-SIDED PASSIVE NOISE-CANCELING HEADSET**

### PHD
**SINGLE-SIDED ACTIVE NOISE-CANCELING HEADSET**

The PH+ series is the latest innovative, lightweight headset line offered by RTS. A noise-canceling microphone with a semi-rigid, fully adjustable boom for precise positioning ensures clear communication. The high-quality wide band dynamic earphones are covered in a leatherette material for better fit, isolation and frequency response, while the large, leatherette headband pad provides day-long comfort.

## LH-300
**SINGLE-SIDED ACTIVE NOISE-CANCELING HEADSET**

## LH-302
**DUAL-SIDED ACTIVE NOISE-CANCELING HEADSET**

The LH-300 and LH-302 are lightweight headsets ready for the long workday. High quality, dynamic earphones combined with a noise-canceling microphone provide clear communication throughout the entire production day. Soft, pliable ear-cushions and a headband pad offer a better fit, isolation and frequency response.

# PREMIUM FULL CUSHION HEADSETS

### HR-1
**SINGLE-SIDED**

### HR-2
**DUAL-SIDED HEADSET**

The HR Series of headsets are available in single-sided or dual-sided applications. This medium-weight, passive noise reduction headset has a dynamic noise-canceling microphone. With a noise reduction rating of 21dB, it is suitable for use in a moderately noisy environment.

The ergonomic, moleskin-covered headband design distributes the ear cushion pressure evenly over the entire ear with no pressure points, ensuring hour of comfortable wear. The headset also folds into a compact form for ease of transport and storage.

These headsets are offered with A4F, A4M and A5M connector types. A pigtail option is also available. The HR FTM versions of this headset offer flip-up-to-mute technology for added user convenience.

# INDUSTRIAL HEADSETS

### PH-16
**SINGLE-SIDED HEADSET**

The PH-16 is a dual-sided monaural headset with noise-canceling dynamic microphone. It fits under a helmet and has an EPA rated NRR of 24dB. The dynamic receivers have special mounting which resist shock, vibration and acoustic feedback.

The PH-16 ear cups are foam lined for added noise attenuation. The vented, foam-filled ear cushions combine comfort with good acoustic seal. For convenience and economy, the receivers and ear cushions are field repairable. Each headset features an adjustable flexible boom for optimum microphone placement.

The PH-16 is available with A4F, A4M and A5M connector types.

### PH-1, PH-2, PH-3
**ROBUST AND DURABLE MEDIUM-WEIGHT HEADSETS**

This durable and rugged line of RTS headsets are medium-weight with foam-filled cushions that offer a light feel with moderate isolation from ambient noise. The dynamic noise-canceling mic is easily positioned with a unique ball joint for continuous adjustability.

PH-1 = Single Side; A4F, A4M, A5M, Pigtail
PH-2 = Double Side Mono; A4F, A4M, Pigtail
PH-3 = Double Side Stereo; A5F, A5M

# CRITICAL COMMUNICATION

## ANNOUNCER EARSETS

The popular RTS earsets are precisely designed for inconspicuous listening while on camera. Used by nearly all major television networks and stations, we have surpassed industry standards. The extremely efficient miniature driver element requires only nominal operating power and enables the announcer to hear program cues while working with a live microphone. The units are also suitable for many other applications such as live theater script prompting.

## HS-6A
### HANDSET

The HS-6A is a telephone-style handset that offers a push-to-talk switch, dynamic earphone and dynamic microphone. It is supplied with a metal hanger bracket for vertical storage and is compatible with most user stations. The HS-6A is terminated with an A4F plug.

| Features | PH-44 | PH-88 | LH-300 | LH-302 | PHS | PHD |
|---|---|---|---|---|---|---|
| Headset Type | Double | Single | Single | Double | Single | Double |
| Noise-Canceling Microphone | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Flexible, Rotating Microphone | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Connector Options | A4F, A4M, A5M, A6M PTT, 2x3.5mm | A4F, A5M, A4M, A6M PTT, 2x3.5mm | A4F, A4M, A5M | A4F, A4M, A5M | A4F, A4M, A5M | A4F, A4M, A5M |
| Ear Cushioning | Foam | Foam | Leatherette | Leatherette | Large, Soft Leatherette Cushions | Large, Soft Leatherette Cushions |
| Adjustable Headband | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Headband Cushion | - | - | Small | Small | Large | Large |
| Headset Weight (with cord) | ~5.1 oz | ~4.6 oz | ~5.2 oz | ~6 oz | 6.3 oz | 7.8 oz |
| Speaker Impedance | 300 Ω | 300 Ω | 150 Ω (A4F, A4M); 300 Ω (A5M) | 150 Ω (A4F, A4M); 300 Ω (A5M) | | 150 Ω (A4F, A4M); 300 Ω (A5M) |
| Speaker Sensitivity | 109dB | 109dB | 99 ((150 Ω) 100 SPL/mW (300 Ω)) | 98 ((150 Ω) 100 SPL/mW (300 Ω)) | 98 ±4 dBSPL @ 1 kHz & 1 mW (150 Ω) 100 ±4 dBSPL @ 1 kHz & 1 mW (300 Ω) | 98 ±4 dBSPL @ 1 kHz & 1 mW (150 Ω) 100 ±4 dBSPL @ 1 kHz & 1 mW (300 Ω) |

Flexible, reliable, and scalable IP intercom.

## That's #theRTSdifference

For information on any of the products featured in this catalog, you can reach us at **info@rtsintercoms.com**
Please visit the RTS website at: **www.rtsintercoms.com**

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## RTS
**Intercom Systems**