

DBP (DIGITAL BELTPACK)

RTS introduces DBP – new member of the RTS Digital Partyline intercom product family

DBP is a four-channel/four-button wired beltpack that runs on PoE (Power over Ethernet 802.3af and 802.3at) and connects using OMNEO IP technology (Dante, AES70 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.

HYBRID FUNCTIONALITY



Operate DBP in partyline mode with OMS (OMNEO Main Station) or in portable keypanel mode with an RTS matrix (ODIN/ADAM) – one device covers it all

DAISY CHAINING



Connect DBP to a PoE switch via OMS/ODIN/ADAM and up to six DBPs can be daisy chained together

USER FRIENDLY



Lightweight and ergonomic design with full-color icon-based menu navigation for quick setup and intuitive operation

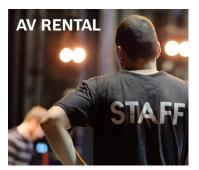
ENGINEERING EXCELLENCE

Patent-pending design aesthetics make DBP comfortable and easy to use. Though lightweight and compact, the unit's robust construction ensures it is ready for the toughest working environments. DBP's over-molded ergonomic volume knobs and rubber enclosure detailing provide extra grip and drop resistance, and it is IP53 rated for protection against dust and water spray.







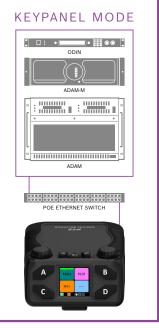


COMPREHENSIVE CONNECTIVITY

DBP's PoE-driven design gives it an unmatched level of scalability and makes it easy to add new users. In and Out PoE ports (two etherCON locking RJ45 connectors) allow up to six DBP devices to be daisy-chained together from the same PoE switch port when used in partyline mode. Up to 40 DBPs can be connected to an OMS, allowing for the creation of an extensive digital partyline system – all in addition to the other wired and wireless devices OMS supports. Depending on the matrix model/configuration, up to 64 DBPs can be connected to a single OMI card for ADAM matrices, and up to 128 DBPs can be connected to one ODIN.



PARTYLINE MODE OMS OMS POE ETHERNET SWITCH











I/O OVERVIEW

While its control layout will be immediately familiar to partyline users, DBP offers a user experience that will exceed expectations. Its intuitive icon-based menu navigation system is presented via a full-color, sunlight-readable TFT display with anti-reflective lens, making configuration quick yet precise for users of all levels, in any light conditions. TALK and LISTEN capability for up to four simultaneously active partylines (i.e. access to a pool of up to 16 partylines) is controlled via four large backlit channel buttons, which can also be assigned for dedicated resources such as relay control.

DBP's digital audio technology provides increased fidelity and a lower noise floor in comparison to analog. Both 3.5 mm TRRS and XLR connectors are provided for connecting headsets, with three different XLR options available: 4-pin female, 4-pin male and 5-pin female (supporting stereo audio for different feeds on the left and right headphones). Incoming CALL notifications are via audible alerts or haptic vibration.

DBP also supports Bluetooth® audio connectivity, making it easy to bring other kinds of devices into the system.



Covered USB port for Bluetooth® connectivity





GENERAL SPECIFICATIONS

Please visit **rtsintercoms.com** for more detailed technical information



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NEW! The latest member of the RTS Digital Partyline intercom product family

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Lightweight and ergonomic design with full-color icon-based menu navigation for quick setup and intuitive operation

OMS (OMNEO MAIN STATION)



A hybrid IP/digital/analog main station for partyline intercom systems and the core component of RTS Digital Partyline

A BRIDGE FROM ANALOG TO DIGITAL AND IP



Analog partyline users can enter the world of IP communications while extending the working life of their legacy equipment

SCALABLE



Available in five configurations to grow with the user's needs – upgrade via software license updates

VERSATILE







Converts between up to four different formats: OMNEO (Dante, AES70 and more), RVON, four-wire AIO and two-wire





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Lanyard loop Bluetooth® connectivity Belt clip



GENERAL SPECIFICATIONS

Width x height x depth	3.94" x 5.51" x 2.64" (100 mm x 140 mm x 67 mm)
Weight	0.75 lbs (340 g)
Power supply	DC PoE 802.3af / 802.3at
Max power	4.0 W (based on PoE DC input)
Operating temperatures	32° F – 122° F (0° C – 50° C)
Storage temperatures	-4° F – 158° F (-20° C – 70° C) with 15% – 90% relative humidity
Compliance	CE compliant, UL certified

Covered USB port for

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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.



	1						
WIDTH X HEIGHT X DEPTH	`	482.6 mm (446.1 mm w/o rack ears) x 43.7 mm x 196.1 mm (including connectors) 19" (17.56" w/o rack ears) x 1.7" x 7.72" (including connectors)					
WEIGHT	5.29 lbs (2.4 kg	5.29 lbs (2.4 kg)					
AC INPUT	100 VAC - 240 V	100 VAC - 240 VAC, 60/50 Hz, 0.46 A / 0.24 A					
MAX POWER	30 W (based or	120 VAC)					
OPERATING TEMPERATURES	0° C - 45° C (32	0° C – 45° C (32° F – 113° F)					
STORAGE TEMPERATURES	-20° C - 70° C (-20° C - 70° C (-4° F - 158° F)					
COMPLIANCE	CE compliant, l	CE compliant, UL certified, PSE					
	ANALOG	ANALOG PLUS	BASIC	INTERMEDIATE	ADVANCED		
DIGITAL BELTPACKS SUPPORTED	0	0	20	20	40		
MAX OMNEO DEVICE CONNECTIONS	0	0	20	20	40		
ROAMEO BELTPACKS SUPPORTED	0	0	0	20	40		
RVON PORTS	0	0	0	0	4		
KP CAPACITY	0	4 (analog only)	4	4	8		
FIBER SUPPORT	No	No	No	Yes	Yes		
ANALOG TWO-WIRE (RTS/AUDIOCOM/CC)	4	4	0	4	4		
2W LOOP THRU	Yes	Yes	N/A	Yes	Yes		
PROGRAM INPUTS			2				
STAGE ANNOUNCE		1					
GPI / RELAY		4 GPI / 4 relays					
2W AUTO-NULLING	Yes	Yes	N/A	Yes	Yes		
NUMBER OF CONFERENCES	4	16	16	16	16		
2W MIXING / ROUTING	No	Yes	No	Yes	Yes		
FOUR-WIRE AIO PORTS	No	4 ports	No	4 ports	4 ports		
AUDIO EXPANSION (TIE LINES)	No	8 ports	8 ports	8 ports	8 ports		

Please visit **rtsintercoms.com** for more detailed technical information

RTS DIGITAL PARTYLINE

RTS Intercom Systems

ENGINEERING EXCELLENCE

Patent-pending design aesthetics make DBP comfortable and easy to use. Though lightweight and compact, the unit's robust construction ensures it is ready for the toughest working environments. DBP's over-molded ergonomic volume knobs and rubber enclosure detailing provide extra grip and drop resistance, and it is IP53 rated for protection against dust and water spray.

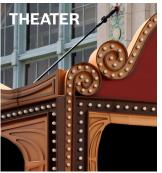




BROADCAST





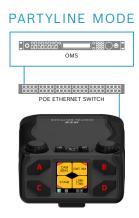


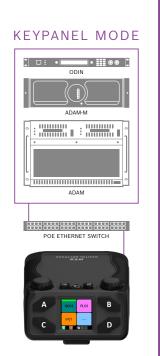
DBP COMPREHENSIVE CONNECTIVITY

DBP's PoE-driven design gives it an unmatched level of scalability and makes it easy to add new users. In and Out PoE ports (two etherCON locking RJ45 connectors) allow up to six DBP devices to be daisy-chained together from the same PoE switch port when used in partyline mode. Up to 40 DBPs can be connected to an OMS, allowing for the creation of an extensive digital partyline system – all in addition to the

other wired and wireless devices OMS supports. Depending on the matrix model/configuration, up to 64 DBPs can be connected to a single OMI card for ADAM matrices, and up to 128 DBPs can be connected to one ODIN.







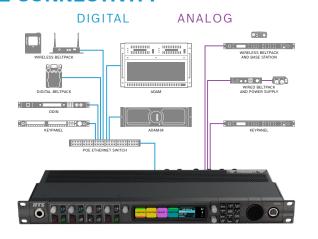
OMNEO IP TECHNOLOGY

Incorporating Dante (audio transport), AES70 (device control) and more – OMNEO allows OMS to interconnect with RTS Digital Matrix products (including ADAM, ADAM-M, ODIN, KP series keypanels and ROAMEO DECT wireless) and forthcoming new members of the RTS Digital Partyline family. OMS can therefore provide a path from legacy equipment to the latest technology, allowing users to migrate to the flexibility of an IP infrastructure without the complexity of a matrix system – all while protecting the investment value of their existing analog partyline hardware.

OMS COMPREHENSIVE CONNECTIVITY

Software upgrades allow for increased capacity and functionality as needs evolve. Users requiring both analog and digital should upgrade to OMS Intermediate or OMS Advanced.

The fully equipped OMS Advanced version allows the user to convert between four different formats:
OMNEO, RVON, four-wire AIO and two-wire. Up to 40 OMNEO devices may be connected, including ROAMEO beltpacks (for which OMS can also serve as a standalone base station),



up to eight keypanels and up to 16 partylines. OMS Advanced supports four channels of RVON (RTS Voice Over Network) via RTS KP series keypanels, for robust remote networking with other RVON-capable equipment (RVON Trunking not supported). G.711, G.722 and G.729AB codecs are supported.



Technical Data Sheet

Innovating the Future of Global Communications

DBP

Digital Belt Pack

The Digital Belt Pack (DBP) is one of RTS' initial offerings in the wired digital party line solution space. The DBP provides TALK and LISTEN capability for up to four configurable audio conferences. In addition, the keys can be assigned for dedicated resources such as relay control.

When operating as a digital party line device, the DBP connects to the OMNEO Main Station (OMS). The DBP can also be connected directly via OMNEO to any of RTS' matrix products. This includes OMI cards in ADAM (or ADAM-M) frames or OMNEO ports on ODIN frames. When connected to an RTS OMNEO matrix, the DBP acts as a wired, 4-button keypanel. The DBP automatically determines the correct mode of operation (digital party line connection to OMS or keypanel connection to the matrix) at power on.

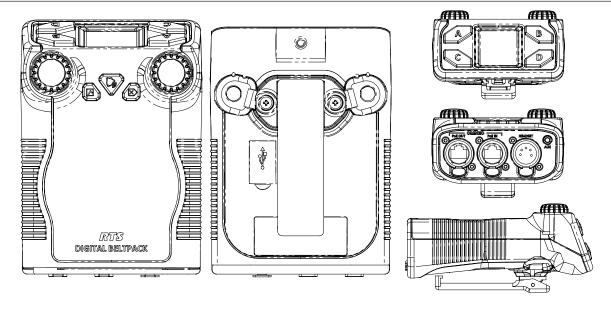
The DBP recovers power over an 802.3af or 802.3at compliant switch. One Ethernet port (PoE In) connects to PoE compliant power sourcing equipment. A second port (PoE Out) is available for daisy chain connections to other DBPs. The DBP comes in a rugged, over-molded enclosure which is IP-53 compliant. It has a full-color TFT display and an icon-based menu interface which allows for local configuration of key customer preferences.



Features

- Incorporates both XLR and 3.5mm TRRS connectors for headsets which are available in 3 different headset XLR options: 4-pin female, 4-pin male, and 5-pin female. The 5-pin female headset supports stereo audio.
- PoE powered via an 802.3af or 802.3at managed switch or PoE injector. Contains a PoE In and PoE Out port which allows up to 6 DBPs to be daisy-chain connected to the same PoE(+) switch port.
- Supports Bluetooth audio connectivity using either an IO Gear GBU522 dongle or an LM Technologies LM506 dongle.
- DBP can be connected to the OMNEO main station (Digital Partyline) or an OMNEO capable matrix (OMI card or ODIN).
 DBP can support up to four active Party Lines. 40 DBPs can be connected to OMS (based on the model), 64 DBPs can be connected to one OMI card (based on the model), 128 DBPs can be connected to one ODIN (based on the model).
- Incoming CALL notifications via audible alerts or haptic vibration.

Line Drawing



Specifications

Innovating the Future of Global Communications

Approved dongles......IO Gear GBU522

 Dot Resolution
 240 x 240 pixels

 Color Resolution
 16-bit (64K) RGB color

 View Angle
 80° (typical, all directions)

 Protective Lens
 Anti-Glare / Anti-Reflective

LM Technologies LM506

Power Supply: DC PoE Maximum Power	
maximum on or	4.0W (PoE DC Input)
Environmental:	
Operating Temperature	4° F – 113° F (-20° C – 45° C)
Storage	5% to 90% relative humidity
0	-4° F – 158° F (-20° C – 70° C) 15% to 90% relative humidity

Dimensions:

5.51 in. (140mm) L x 3.94 in. (100mm) W x 2.64 in. (67mm) D

Weight:

Microphone Pre-Amplifier:

XLR Input: Electret Mic Input Dynamic Mic Input Frequency Response (LEC disabled) Frequency Response (LEC enabled)	50 dBu Nominal 120 Hz to 20 kHz
3.5mm Input:	-42 5 dRu Nominal

		enabled		.120 Hz to 7.4 kHz

Bluetooth Input:
Frequency Response70 Hz to 3.4 kHz

Headphone Amplifier:

XLR Headphone Response (150 Ohm load).	30 Hz to 19 kHz
3.5mm Headphone Response (32 Ohm load))50 Hz to 19 kHz
Bluetooth Headphone Response	30 Hz to 3.4 kHz

Aux In

Nominal Input	4.3 dBu
Frequency Response (600 Ohm load)	50 Hz to 20 kHz



F.01U.380.825 - DBP Technical Manual

F.01U.394.663 - DBP Quick Install Guide

F.01U.380.819 - OMS Installation Manual

F.01U.380.820 - OMS Technical Manual - https://products.rtsintercoms.com/binary/OMS_om_F01U380820_en.pdf

Aux Out

Approvals:CE CompliantUL Certified

OMNEO Ports (PoE In and PoE Out):

F.01U.345.091 - ODIN Installation Manual

F.01U.345.086 - ODIN Technical Manual - https://products.rtsintercoms.com/binary/F01U345086.pdf

F.01U.273.977 - OMI Quick Start Guide - https://products.rtsintercoms.com/binary/F01U273977.pdf

F.01U.261.047 - OMI Technical Manual - https://products.rtsintercoms.com/binary/F01U261047.pdf

Order Information

Order No.	Description
DBP 4M	IP 4ch beltpack 4M headset
DBP 4F	IP 4ch beltpack 4F headset
DBP 5F	IP 4ch beltpack 5F headset

The specification information is subject to change without notification. Brand names mentioned are the property of their respective companies

Bosch Security Systems, LLC | 12000 Portland Avenue South | Burnsville, Minnesota 55337 U.S.A. Form Number: F.01U.380.824 Rev 03

Date: May 2021





SPECIFICATIONSDIGITAL BELTPACK

GENERAL REQUIREMENTS

PURPOSE

Digital Beltpack shall address the need for a reliable and simple IP solution for interconnecting multiple users in a chain or star topology and allow them to communicate over a partyline or a matrix intercom. The beltpack receives its DC power from a Power over Ethernet switch operating on 802.3af and 802.3at standards. Power over Ethernet output is available to power beltpacks individually and/or in a daisy chain up to six beltpacks. The beltpack shall operate with cable lengths up to 100m from the power source to the last beltpack in the chain. Electrical signals on the beltpack system shall be transmitted over CAT5E cable or better with a 13-ohm resistance or less.

CAPACITY

The Digital Beltpack shall support four channels of audio. It shall access 16 conferences when operating with an IP main station in a digital partyline mode and can access all available IP ports when operating with a matrix to operate like a digital intercom keypanel. Ethernet connectivity shall be available through copper connections with etherCON connectors.

FORM FACTOR

The Digital Beltpack shall be in a rugged, over-molded enclosure, which is IP-53 compliant. The physical dimensions shall not exceed the follow: 140mm (5.51 in) Length x 100mm (3.94 in) Width x 67mm (2.64 in) Depth. The weight of the beltpack shall not exceed 340 g (.75 lbs.)

AMBIENT OPERATING TEMPERATURE

The Digital Beltpack shall operate at an ambient temperature up to -4° F to 113° F (-20° C to 45° C) 5% to 90% relative humidity.

MECHANICAL STRUCTURE

The Digital Beltpack shall have a top panel user interface featuring a color display capable of displaying information about the unit, two rotary encoders with push-function, channel controls, menu controls, and call signal. The bottom of the unit shall have the set of connectors specified below.

FRONT AND TOP PANEL FEATURES

TOP PANEL DISPLAY PROPERTIES

The display shall have the active area of at least 27.72 mm x 27.72 mm. The dot resolution must be 240 x 240 pixels, with a color resolution 16-bit (64K) RGB color. The luminance of the display shall be user-adjustable. The display technology shall be TFT. Display viewing angle shall be 80 degrees, vertically and horizontally.

TOP PANEL DISPLAY GUI

The features of the Digital Beltpack shall be available through an icon-driven Graphical User Interface (GUI) where individual user-configurable functions are selectable from hierarchically organized menus. It is possible for the user to navigate through the menus and select individual items using the front panel rotary knobs and/or menu buttons.

REAR AND BACK PANEL REQUIREMENTS

REAR PANEL FEATURES

The Digital Beltpack shall have a rear panel that uses etherCON connectors for PoE in, PoE out, XLR headset connector, and a 3.5mm TRRS headset connector. The XLR headset connector shall be a male or female four-pin or a female five-pin connector (all three versions shall be available). The microphone input on the XLR headset connector must be able to support both dynamic and electret microphones automatically. The beltpack shall be equipped with volume control knobs to adjust the headphone listen level.

BACK PANEL FEATURES

The Digital Beltpack shall have a removable belt clip and two metal rings for a lanyard attachment. The beltpack shall have a recessed USB port with cover that supports third-party Bluetooth dongles.

OPERATIONAL REQUIREMENTS

CHANNEL CONTROLS

The Digital Beltpack shall have buttons for Call, Menu Select/Back, and Channel Talk with backlight and shall be similar in material and "touch-and-feel", including amount of tactile feedback. It shall have button combination to toggle Listen on and off when operating with a matrix. The Digital Beltpack shall have rotary encoders for volume/program.

When the Call button is actuated, an alert signal shall be generated in the beltpacks of other users connected to the same partyline. The alert shall be signaled with an optional audible tone and optional vibration of the beltpack itself. When the Talk button is actuated, the headset microphone audio is transmitted to the beltpack of other users. An LED on the Channel Talk button shall indicate to the user which partyline is active as well as in indication on the TFT display.

The beltpack must support the following options: Incoming Call Beep, Call Vibration, Mic Kill, and Key Mode.

Incoming Call Beep shall have two available settings; On, or Off. When On, the beltpack shall generate an audible alert in the headset, upon incoming call. When Off, the audible alert shall be disabled. The beltpack must be able to receive calls on all channels. Call Vibration shall have three available settings; Off, Low, and High. When On, an incoming call shall generate a beltpack vibration, also known as 'buzzer'. When Off, this feature shall be disabled.

Mic Kill shall have three available settings; On, Off, or Send. When On, the beltpack shall disable the microphone when it receives a reserved pilot tone from another beltpack. When Off, the beltpack shall ignore any incoming pilot tone to disable the microphone. When Send is selected, the beltpack shall generate the reserved pilot tone on the party line. The pilot tone shall consist of a pre-defined frequency selected to be outside of the audible spectrum, above 20 kHz.

Key Mode shall have four available settings; On, Off, Latching, or Momentary. When On, the beltpack microphone shall always be on. When Off, the beltpack microphone shall always be off. When Latching is selected, a Talk button depress shall result in the beltpack switching the microphone input from on to off, or from off to on. The microphone then remains in that mode until the next button depress occurs. When Momentary is selected, the microphone shall be on only while the button is depressed. When the button is released, the beltpack shall switch the microphone to off.

MENU CONTROLS

The Digital Beltpack shall have an icon-based menu that supports and visually shows parameters for Setup, Display, Bluetooth, Audio, Call Alerts, and Info.

The Setup menu shall include parameters for Network Configuration, Key Modes, PIN Authentication, Service Tests, Key Assignments, and Offers to the beltpack. Service Tests shall include a Factory Reset. Factory Reset shall have two available settings; Reset or No Reset. When Reset is selected, the beltpack shall revert all settings to the values their default (factory) settings, and the effect of any user programming shall be void. When No Reset is selected, Reset shall not be performed.

Display menu shall include parameters for Display Mode, Brightness, Screen Saver, and Screen Flip. Display Mode shall have three available settings; Normal, Dim, and Dark. Normal shall operate at 76% brightness, Dim at 26% brightness, Dark at 0% Brightness.

Bluetooth menu shall allow for pairing Bluetooth headset and mobile devices.

Info menu shall display client, bootcode, DSP, and software versions as well as serial number and MAC Address.

Call Alerts menu shall include parameters for enabling Call Beep and Call Vibration.

Audio menu shall include parameters for Headset, Sidetone, Echo Canceller, Mixing Signals, Input Output level control, Noise Gate, Mic Select, Mic Type, Hot Mic, and Mic Kill.























