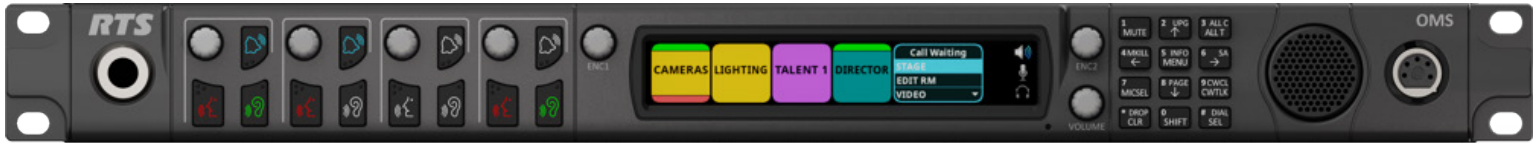


## OMS OMNEO Main Station



The OMS Main Station is the beginning of a new era of intercom systems called RTS Digital Partyline. This powerful single system bridges legacy analog partyline users who wish to migrate to digital functionality while using their existing equipment. Furthermore, OMS connects both wired and wireless intercom products. OMS represents an incredibly versatile and easy-to-use solution for a wide range of applications – a communications multi-tool for theaters, houses of worship, industrial, broadcast and event venues.

Using OMNEO, OMS interconnects with our digital matrix products including keypanels, ROAMEO wireless and digital beltpacks. OMNEO is an architectural approach to connecting devices that need to exchange information such as audio content or device control (Dante & control). In addition, it can serve as a stand-alone base station for ROAMEO, RTS's digital wireless communication solution based upon DECT.

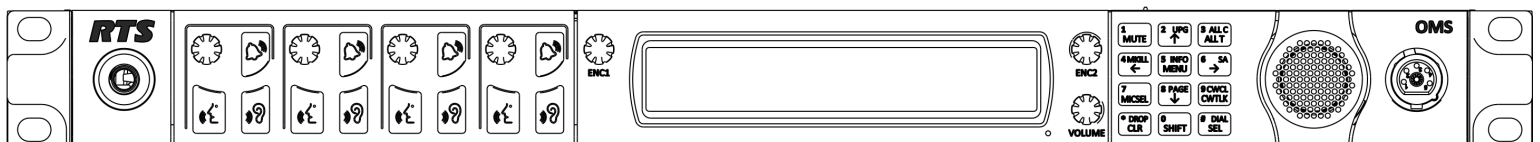
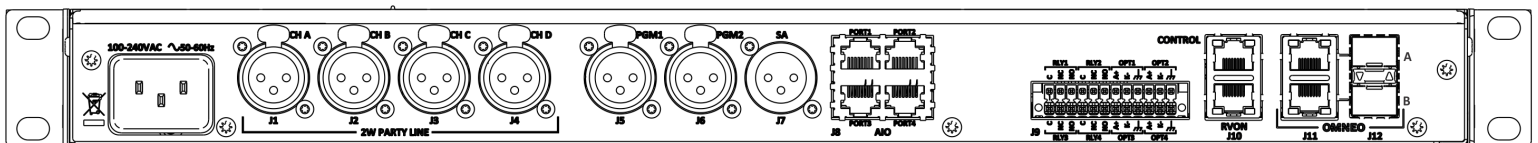
The OMS is available in five licensed models; Analog Only, Analog Plus, Basic, Intermediate and Advanced. The OMS allows for increased capacity and functionality as business needs grow.

The OMS has the easy-to-use RTS digital icon-based front panel display, along with a simplified menu structure to allow system configuration and control from the front panel and display.

## Features

- Supports up to 40 OMNEO or ROAMEO belt packs and up to 16 party lines. Ethernet connectivity through copper or fiber connections available.
- Supports 4 ports of analog AIO 4-wire and 4 ports of analog 2-Wire (RTS / Audiocom / Clear-Com formats supported). Auto nulling capability (echo cancellation) available on 2-Wire interfaces.
- Supports up to 8 keypanels (any mix of analog/OMNEO/RVON) depending upon product licensing. (Maximum 4 analog)
- Up to 4 RVON channels available with the Advanced license for remote networking with other RVON capable equipment. G.711, G.729ab and G.722 codecs supported.
- Includes stage announce output and additional OMNEO expansion audio ports reserved for connecting and networking with other OMS units. These expansion ports allow additional system capacity and partyline capability as part of a distributed system.

## Line Drawing



# Specifications

## Power Supply:

Type.....Locking IEC 320 C14 style connector  
 AC Input..... 100 VAC – 240 VAC, 60/50 Hz,  
 0.46 A / 0.24 A  
 Maximum Power  
 Consumption ..... 30 W (based on 120 VAC)

## Environmental:

Operating  
 Temperature ..... 32° F – 113° F (0° C – 45° C)  
 Storage  
 Temperature .....-4° F – 158° F (-20° C – 70° C)

## Dimensions:

19" w/ rack ears (17.56" w/o rack ears) W x 1.7" H x  
 7.72" D (including connectors)  
 (482.6 mm w/ rack ears [446.1 mm w/o rack ears] W x  
 43.7 mm H x 196.1 mm D [including connectors])

## Weight:

OMS chassis ..... 5.29 lbs (2.4 kg)

## AIO 4-Wire Analog:

Connectors .....4 RJ-45 connectors  
 Signal Format ..... Differential RX/TX audio with  
 differential RS-485 control data  
 Wiring Scheme ..... Both 568B & USOC supported  
 A/D and D/A Resolution ..... 24 bits  
 Max Input Level (balanced) .....20 dBu w/o clipping  
 Digital Input Gain ..... Programmable  
 (-20 dB – 20 dB)

Input Frequency  
 Response ..... +1 dB/-3 dB from 100 Hz – 20 kHz  
 THD+N (8dBu input,  
 unity gain) ..... 0.025% non-weighted@1 kHz  
 <0.075% non-weighted, 100 Hz – 20 kHz  
 Nominal Input Impedance..... >22 kΩ  
 Nominal Output Level .....8 dBu  
 Digital Output Gain ..... Programmable  
 (-20 dB – 20 dB)

Maximum Output  
 Level (balanced) .....20 dBu w/o clipping  
 Output Frequency  
 Response ..... +1 dB / -3 dB from 100 Hz – 20 kHz  
 Output Noise Floor ..... <-65 dBu  
 Crosstalk Isolation ..... >80 dB

PGM1 & PGM2.....3-pin XLR-F  
 Signal Format ..... Differential RX/TX audio  
 A/D Resolution..... 24 bits  
 Max Input Level (balanced) .....+20 dBu w/o clipping  
 Digital Input Gain ..... Programmable  
 (-20 dB – 20 dB)

Input Frequency  
 Response ..... +1 dB/-3 dB from 100 Hz – 20 kHz  
 THD+N (8dBu input,  
 unity gain) ..... 0.025% non-weighted@1 kHz  
 <0.075% non-weighted, 100 Hz – 20 kHz  
 Nominal Input Impedance..... >22 kΩ  
 Nominal Input Level .....8 dBu  
 Digital Input Gain ..... Programmable  
 (-20 dB – 20 dB)

SA (Stage Announce) (output).....3-pin XLR-M  
 Signal Format ..... Differential RX/TX audio  
 D/A Resolution..... 24 bits  
 Max Output Level (balanced) .....20 dBu w/o clipping  
 Digital Output Gain ..... Programmable  
 (-20 dB – 20 dB)

Maximum Output  
 Level (balanced) .....20 dBu w/o clipping  
 Output Frequency  
 Response ..... +1 dB / -3 dB from 100 Hz – 20 kHz  
 Output Noise Floor ..... <-65 dBu  
 Crosstalk Isolation ..... >80 dB

## 2-Wire Party Line Analog:

Connector ..... four 3-pin female XLR connectors  
 Modes/Port supported ..... RTS CH1, RTS CH2  
 Audiocom (4 channel)  
 Clear-Com (4 channel)  
 4W/2W Echo Return Loss ..... >45 dB

## Unbalanced Operation (RTS/Clear-Com)

Expected Termination Impedance ..... 200 Ω  
 Noise Contribution ..... <-70 dBu  
 THD+N (w/ nominal input).... <0.5%, 200 Hz – 7.3 kHz  
 Bridging Impedance..... >10 kΩ  
 CALL Signaling ..... 20 kHz (RTS mode)  
 12 VDC (Clear-Com mode)  
 MIC KILL Signaling ..... 24 kHz (RTS mode)

## Balanced Operation (Audiocom)

Expected Termination Impedance ..... 300 Ω  
 Noise Contribution ..... <-70 dBu  
 THD+N  
 (with nominal input) ..... <0.5%, 200 Hz – 7.3 kHz  
 Bridging Impedance..... >10 kΩ  
 CALL Signaling ..... 20 kHz (Audiocom mode)  
 MIC KILL Signaling ..... 24 kHz (Audiocom mode)

## General Purpose Input/Output Ports:

### Relays (4 Relays)

Type..... SPDT  
 Contacts ..... Common (C)  
 Normally Closed (NC)  
 Normally Open (NO)  
 Contact Rating..... 1A @ 30 VDC

### Inputs (4 Inputs)

Type .....Optically Coupled  
 Input Voltage..... 5 VDC – 12 VDC on A+  
**Note:** A+ is internally pulled to +5 VDC. Connect K-  
 to chassis ground to activate.

## Control Port:

Connector ..... RJ-45  
 Format ..... IEEE 802.3 compliant  
 Speed ..... 10/100/1000 Mbps  
 LEDs.....Speed and Link/Activity

## OMNEO Port (primary and secondary):

Maximum Capacity ..... 48 Full-duplex ports  
 Copper Connector Type ..... RJ-45  
 Format ..... IEEE 802.3 compliant  
 Copper Ethernet Speed ..... 100/1000 Mbps  
 LEDs.....Speed and Link/Activity  
 Fiber Connector Type .....Small Form  
 Factor Pluggable (SFP)  
 Multimode ..... Finisar FTLF8519P3BNL  
 500m / 2.125Gbps  
 Single Mode.....Finisar FTLF1421P1BTL  
 15km / 2.67Gbps  
 Fiber Speed ..... 100/1000Mbps  
 LEDs.....Speed and Link/Activity  
 LED Indicator..... Optical Signal Present  
**Note:** SFF-8472 fiber diagnostics supported

## RVON:

Compression	Bit Rate	Coding Delay	Playout Delay	Bandwidth	Sample Rate
G.711	64 kbps	125 μs	20-60 ms	160-224 kbps	8 k
G.729AB	8 kbps	10 μs	20-120 ms	32-112 kbps	8 k
G.722	64 kbps	4 μs	20-60 ms	160-224 kbps	16k

\* Data rate depends codec selection

**Note:** The Playout Delay and Bandwidth depend on  
 the configured amount of audio per packet.

## TFT Display:

Active Area ..... 120.10 mm (wide) x 18.77 mm (high)  
 Dot Resolution .....576 x 90 pixels  
 Color Resolution .....16-bit (64K) RGB color  
 View Angle .....80° (typical, all directions)  
 Protective Lens.....Anti-Glare / Anti-Reflective

## Agency Compliance:

- CE Compliant
- UL Certified
- PSE

# Order Information

<b>Order No.</b>	<b>Description</b>
OMS ANALOG 4M	Main station 4ch A4M headset
OMS ANALOG 4F	Main station 4ch A4F headset
OMS ANALOG 5F	Main station 4ch A5F headset
OMS BASIC 4M	Main station Basic 4ch A4M headset
OMS BASIC 4F	Main station Basic 4ch A4F headset
OMS BASIC 5F	Main station Basic 4ch A5F headset
OMS INTERMED 4M	Main station Intermed 4ch A4M headset
OMS INTERMED 4F	Main station Intermed 4ch A4F headset
OMS INTERMED 5F	Main station Intermed 4ch A5F headset
OMS PLUS 4M	Main station Analog Plus 4ch A4M headset
OMS PLUS 4F	Main station Analog Plus 4ch A4F headset
OMS PLUS 5F	Main station Analog Plus 4ch A5F headset
OMS ADVANCED 4M	Main station Advanced 4ch A4M headset
OMS ADVANCED 4F	Main station Advanced 4ch A4F headset
OMS ADVANCED 5F	Main station Advanced 4ch A5F headset

<b>Order No.</b>	<b>Description</b>
OMS_A to AP	SW Upgrade Analog to Analog Plus
OMS_A to BAS	SW Upgrade Analog to Basic
OMS_A to INT	SW Upgrade Analog to Intermediate
OMS_A to ADV	SW Upgrade Analog to Advanced
OMS_AP to BAS	SW Upgrade Analog Plus to Basic
OMS_AP to INT	SW Upgrade Analog Plus to Intermediate
OMS_AP to ADV	SW Upgrade Analog Plus to Advanced
OMS_BAS to INT	SW Upgrade Basic to Intermediate
OMS_BAS to ADV	SW Upgrade Basic to Advanced
OMS_INT to ADV	SW Upgrade Intermediate to Advanced
OM-MM FIBER	Multimode fiber module
OM-SM FIBER	Singlemode fiber module