

AeroX Audio105

Data Sheet



Communications
Device

1. Introduction

The AeroX Audio105 is an audio controller that allows digital voice files to be transmitted over ground to air radios. Furthermore, it allows users to append audio messages to be transmitted through multiple audio inputs/outputs. Thus, the AeroX Audio105 fulfills the hardware component of an Automatic Terminal Information Service (ATIS) that produces critical flight safety information in the form of an audible voice information stream that can be transmitted over a radio for pilots. The information transmitted are the weather conditions at the airport, as well as operational information, such as the current runway in use, available approaches, the state of the runway, and breaking conditions. Other information, such as if the airport has certain restrictions, can also be broadcasted through this system.



2. Features

- 48.3 cm (19 in) 2U rack mount.
- Computer controlled AeroX Audio105 with color LCD display for status and setup.
- Comprehensive PSU monitoring to facilitate automatic uninterrupted redundant fail-over in the event of a unit failing (redundant operation requires two AeroX Audio105s per audio stream).
- Analogue audio stream is output on five XLR / 3.5 mm jacks that can be connected to VHF/ UHF radio, Air Traffic Control tower, Legal recorders and may other analogue audio devices.
- 5 independent PTT volt free normally open / normally closed relay contacts that can be used to control VHF radio transmit and other devices, software allowing.
- XLR / 3.5 mm jack for analogue audio input is provided that allows recording of audio from VHF/UHF receivers and many other analogue audio sources.
- Support for a handheld PTT microphone on the front panel that can provide manual recording of audio messages.
- Loudspeaker and VU meter monitors selected audio source.
- Power source 115/230 VAC and or 11 to 24 VDC inputs for flexibility.
- Simple to use setup and firmware updates using USB memory stick.
- Ethernet port for communication with Campbell Aero™ controller.
- Runway or helipad light control relay contacts for Radio Operated Lighting Controller (ROLC) (contact Campbell Scientific for details).
- Auxiliary isolated digital input (contact Campbell Scientific for details).
- Options for telephone dial in audio message output and handset (contact Campbell Scientific for details).

3. Specifications

Case material:	Aluminium
Mount:	2U rack mount
Dimensions	
Front panel:	48.3 cm (19 in) width, 8.9 cm (3.5 in) height
Case:	43.2 cm (17 in) width, 8.1 cm (3.2 in) height, 27.9 cm (11 in) depth
Weight:	3.5 kg (7.7 lb)
Power requirements:	80 to 264 VAC @ 25 W typical, 40 W maximum, 50/60 Hz 11 to 24 VDC @ 25 W typical, 40 W maximum
Temperature:	-20 to +70 °C

NOTE:

The display limits operational temperature range to -20 to +70 °C, but a heater fitted on the display back can increase that range. Contact factory for more information.

Humidity:	0 to 100% RH, non-condensing
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3.1 Rear panel



AUDIO OUT terminal (CH1 to CH5):	Male 3-pin XLR 600 ohm balanced Transformer isolated Separate 3.5 mm, 3-pole jack to the right of the XLR
Adjustable audio level maximum:	+4 dBu, 1.23 V rms, 1.74 V peak, 3.48 V peak-to-peak

AUDIO IN:	Female 3-pin XLR 600 ohm balanced Transformer isolated Separate 3.5 mm, 3-pole jack to the right of the XLR
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Adjustable audio level maximum:	+4 dBu, 1.23 V rms, 1.74 V peak, 3.48 V peak-to-peak
PTT (push-to-talk):	5x Volt free, break before make, normally open / closed relay contacts (contact rating 50 V @ 1 A), NOT protected against overload +5 VDC, 100 mA limited output used with relay contacts to configure pull ups or pull downs.

Isolated auxiliary digital input:	3.5 to 12 V
LIGHTS terminal strip:	Four screw terminals Volt free, break before make, normally open / closed relay contacts (contact rating 50 V @ 1 A), NOT protected against overload

Redundant 9-pin D connector:	Signals between AeroX Audio105s to control redundant operation
USB port:	USB 2.0 compatible type-A socket
ETHERNET port:	RJ45 socket LAN

115/230VAC/25W-50/50HZ,
Main power inlet: 80 to 264 VAC
 IEC C14 socket
 50/60 Hz
 40 W maximum
 On/Off power switch

11-24VDC @ 25W, power input screw terminals: 40 W maximum, reverse polarity protected
 On/Off power switch

Special features:

HANDSET socket: Supports FAA handset with electret microphone including bias and speaker

VOICE MODEM socket: Telephone dial in voice modem

POWER/ERROR LED: Green
 Steady state when power on and status ok
 Flashing when power on but error detected. When this occurs, all VU LEDs will be continuously lit until the error is cleared.

LCD colour display: Show status
 Data entry dial allows set up changes
 Bright, high contrast
 Resolution: 800 x 480 pixels
 Dimensions: 95.0 mm (3.742 in) width, 53.9 mm (2.083 in) height

3.2 Front panel



MIC PTT: Supports Electret hand-held microphone with PTT button

Loudspeaker: Monitors selected audio source (user-adjustable audio volume)

VOL/DATA dial: Volume control
 Navigate menus and data entry

VU LEDs: Visual indication of selected monitor audio source

4. Compliance and testing

NOTE: Further details regarding compliance and testing are available upon request.

EMC compliance: EN 61326-1:2013 (CE) and BS EN61326-1:2013 (UKCA)

Electrical safety compliance: EN 61010-1:2010+A1:2019

5. Warranty

5-year standard warranty



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