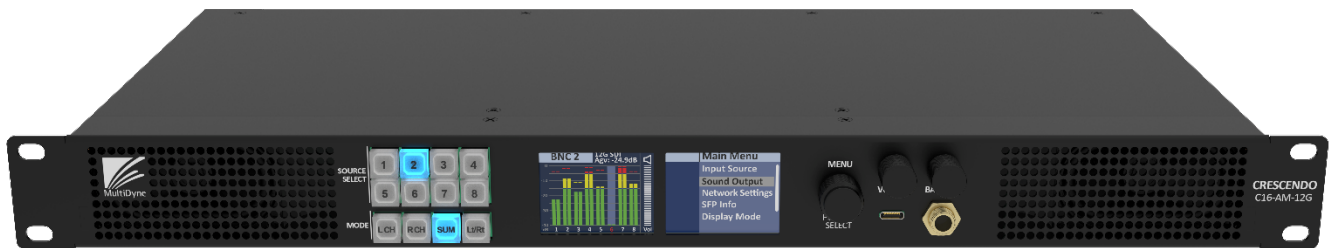




User Manual



Crescendo Series

C16-AM-12G Audio Monitor

Version 1.3

MultiDyne

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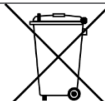


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2. Safety Info

- Do not use this apparatus near water.
- Clean only with lint-free dry cloth.
- Do not block any ventilation openings.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purposes of the grounding-type plug. A ground type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Install in accordance with the MultiDyne® installation instructions.
- Install all peripheral equipment (cameras, routers, etc.) in accordance with the manufacturer's instructions and safety requirements.
- Protect the power cord from being walked on or pinching particularly at plugs, convenience receptacles, and point where they exit from the apparatus.
- Only use attachments/accessories specified by MultiDyne®.
- Use only with the cart, rack, stand, tripod, bracket, or table specified by MultiDyne®, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Follow all local Electrical Codes for Grounding, Lightning Arrestment and Surge Protection. Unplug this apparatus during lightning storms or when unused for extended periods of time.
- All Electrical Work to the facility must be performed by a qualified Licensed Electrician. All local Electrical Codes must be followed and, if necessary, must be inspected by a Local or State Inspector.
- All servicing of MultiDyne equipment must be performed at the factory by a MultiDyne trained service technician or engineer.
- Throughout this manual, several Warnings and Cautions and Notes may be presented to alert the user to important safety or operating information.
- Always adhere to local building, safety and fire prevention codes during the installation and operation of this product.
- Use only power cords that were shipped with this product or specified for this product and certified for the country of use.
- Connect the unit only to a power source with the specified voltage rating.
- Unless otherwise stated in the Installation Instructions, and in adherence to local Electrical Codes MultiDyne® Equipment should only be plugged into a standard 15 amp dedicated circuit.

	Warning –indicate danger that requires proper procedures or practices to prevent injury or death to personnel.
	Cautions indicate proper procedures or practices to prevent damage to equipment or property.
	Warning –The safe operation of this product requires that a protective earth connection be provided. A grounding conductor in the equipment's mains supply cord provides this protective earth. To reduce the risk of electrical shock to the operator and service personnel, this ground conductor must be connected to an earthed ground. The mains plug shall remain readily operable.
	Warning –The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
	Warning - This symbol on the equipment indicates for use at altitudes not exceeding 2000 m.
	Warning - Contact your local authority for further details on the correct disposal of this waste, in accordance with your national legislation.



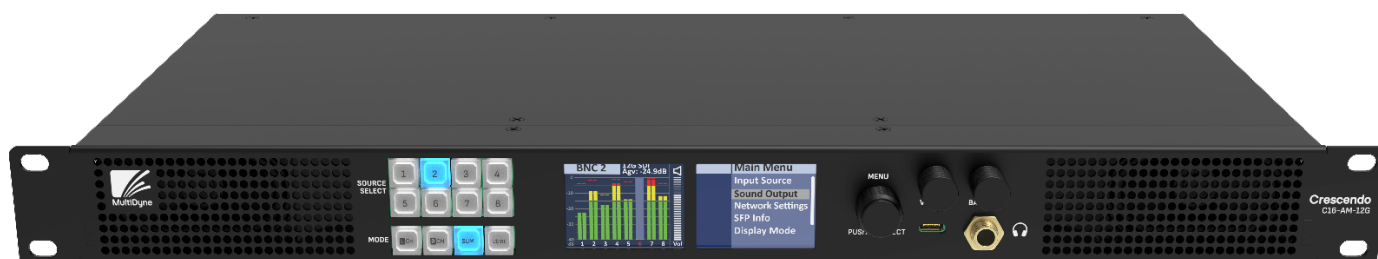
3. Overview

The C16-AM-12G is a 1 RU rack-mount audio monitoring unit designed for broadcast and production environments. The unit supports monitoring of embedded SDI audio, network audio streams, and analog audio inputs.

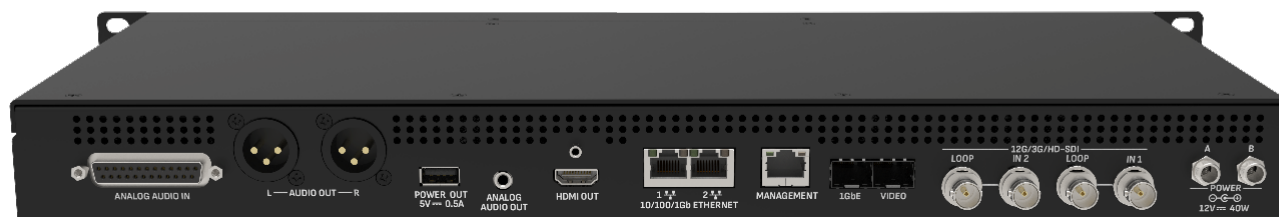
Two 12G-SDI inputs are provided for monitoring embedded audio from SDI signals. The unit supports 12G, 6G, 3G, HD. 16 embedded audio channels are extracted from the selected SDI input for monitoring. The optional module enables network audio monitoring for Dante, AES67 and SMPTE ST 2110-30 audio streams.

Additional inputs include eight balanced analog audio channels via a TASCAM compatible DB-25 connector. Audio output is available through internal speakers, headphone output, and XLR balanced analog outputs for connection to external speakers. The rear panel also provides a 3.5 mm audio jack and USB-A power output dedicated for Bluetooth transmitter dongle allowing easy wireless headphones connection.

C16-AM-12G Front



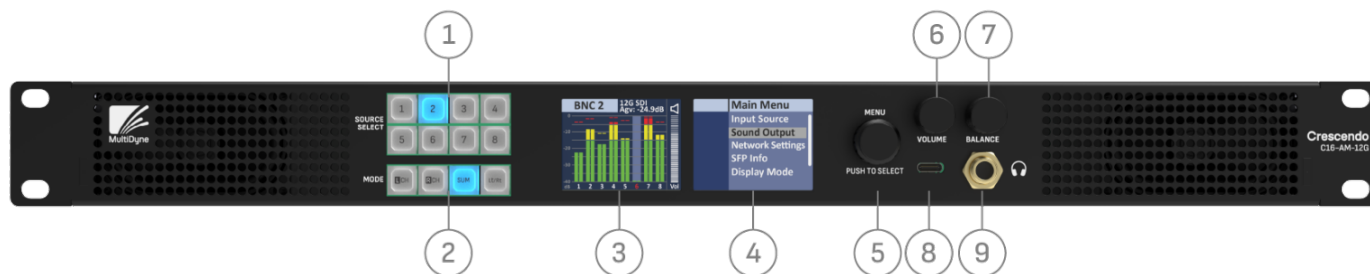
C16-AM-12G Rear





4. Interfaces

4.1. Front panel



4.1.1. Source Select Buttons

[1] Eight illuminated buttons labeled 1–8 are provided for selecting the audio channel pairs to be monitored. The active selection is indicated by button illumination.

4.1.2. Mixing Mode Buttons

[2] Four buttons labeled LCH, RCH, SUM, and Lt/Rt enable audio mixing.

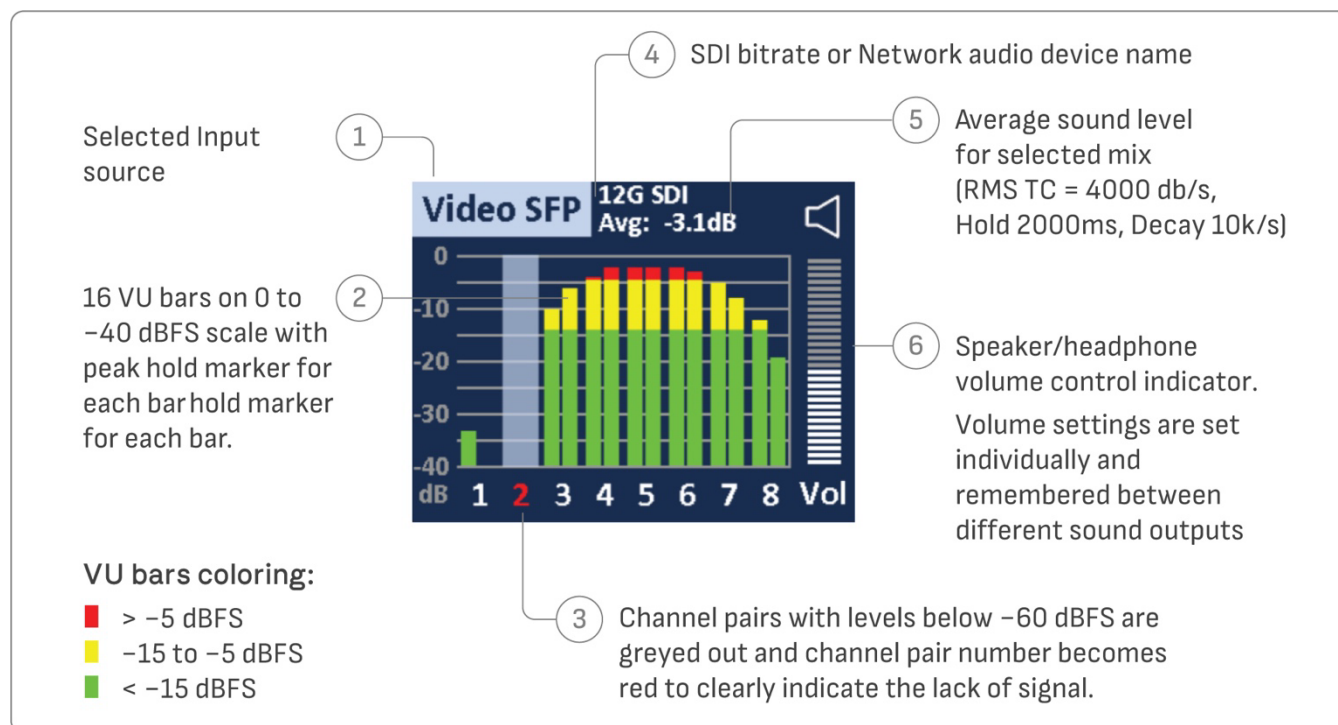
- LCH – Only left channels from all selected pairs are routed to the mix
- RCH – Only right channels from all selected pairs are routed to the mix
- SUM – Allows for up to 8 channel pairs to be summed and added to the mix.
- Lt/Rt – Left total/Right total 5.1 to stereo downmix. In this mode 3 subsequent channel pairs can be chosen:
 - Pair 1: Left, Right
 - Pair 2: Center, LFE (LFE is discarded in Lt/Rt mix)
 - Pair 3: Left surround, Right surround

SUM can be used together with LCH and RCH to sum left/right channels from more than 1 pair.



4.1.3. Audio Meter Display

[3] The left LCD display shows audio level meters and monitoring information for the selected input source.



4.1.4. Menu Display

[4] The right LCD display provides access to the system configuration menus and settings. Details of menu capabilities and navigation are described in chapter 5.

4.1.5. Menu Encoder

[5] A rotary encoder labeled MENU – Push to Select is used to navigate menu items and adjust configuration parameters. Rotating the encoder scrolls through menu options, and pressing the encoder confirms a selection.

4.1.6. Volume Control

[6] The VOLUME knob adjusts the monitoring level of the selected audio output. Press the knob to mute or unmute audio.

4.1.7. Balance Control

[7] The BALANCE knob adjusts the audio balance between the left and right stereo output. Press the knob to center the balance.



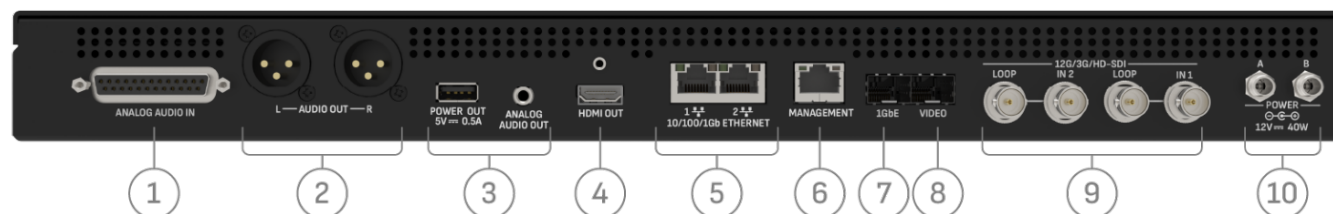
4.1.8. USB-C Port

[8] A USB-C port is located on the front panel and is used for firmware updates.

4.1.9. Headphone Output

[9] A 1/4-inch headphone jack is provided for headphones. When a plug is detected, the audio automatically switches to the headphones. At full volume the output level is 18 dBu to provide enough headroom for a wide range of headphones.

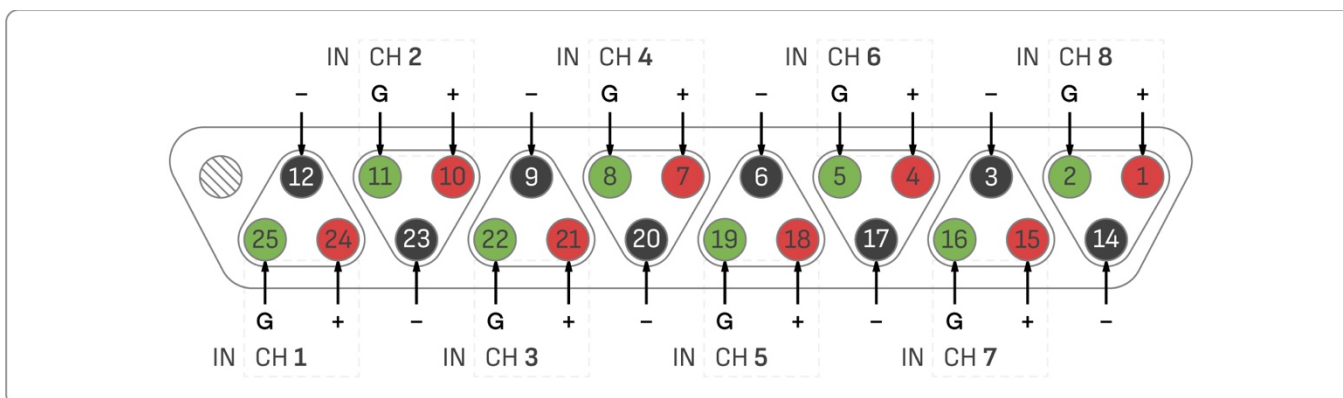
4.2. Rear panel



The rear panel provides signal inputs, monitoring outputs, network connections, and power interfaces for the C16-AM-12G.

4.2.1. Analog Audio Input

[1] A female DB-25 connector allows for 8 balanced analog input audio channels with a pinout compatible with the TASCAM standard. Inputs clip above 24 dBu.



A DB-25 connector provides multi-channel analog audio input for monitoring external analog audio sources.



4.2.2. XLR balanced analog audio output

[2] Two balanced 3-pin male XLR connectors provide left and right audio outputs for connection to external powered speakers or monitoring equipment.

4.2.3. 3.5 mm jack output + USB-A power

[3] A 3.5mm line level analog output jack and USB-A power output are dedicated for use with Bluetooth transmitter dongles allowing for easy wireless headphones/speakers connection.

4.2.4. HDMI Output

[4] An HDMI 2.0 connector outputs a video feed of the selected SDI input to an external display.

4.2.5. Audio Network Interfaces

[5] With the audio-over-IP option (C16-AM-12G-IP), two RJ45 Ethernet (10BASE-T, 100BASE-T, 1000BASE-T) ports will provide connectivity for audio-over-IP protocols supporting Dante, AES67, and SMPTE ST 2110-30 audio streams. Without the audio-over-IP option on board, both ports will operate the same as Management Port.

4.2.6. Management Port

[6] A separate dedicated RJ45 Ethernet (10BASE-T, 100BASE-T, 1000BASE-T) management port is provided for system configuration and network management. Devices on the same network as this port will be able to access and control the device using WebGUI, RESTful API and Ross DashBoard software.

For more information on remote access go to chapter 6.

4.2.7. Network SFP slot

[7] Supports 1.25GbE MSA Network SFPs. If the audio-over-IP (C16-AM-12G-IP) is enabled, this port will work as an Audio-over-IP interface. If not, it will work as a Management Port.

4.2.8. Video SFP slot

[8] Supports 3G and 12G 1 × RX non-MSA video SFPs. Video received using SFP in Video SFP slot can be selected as monitored input. If Video SFP is selected as the monitored input, then it will also be output on BNC loop 2.

4.2.9. SDI Inputs and loop outputs

[9] IN1 and IN2 BNC connectors are supporting 12G/6G/3G/HD-SDI video standards for embedded audio monitoring. For each input there is a loop out to pass the video cleanly to another piece of equipment down the line. Loop 2 is shared with Video SFP and will output SDI from selected input.

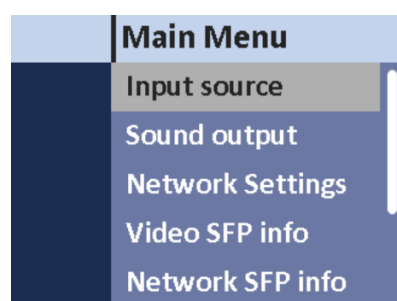


4.2.10. Power Input

[10] Dual 12 V DC power connectors provide redundant power input for the unit. The device should only be used with its dedicated PSU. Peak power consumption of the whole device is 35 W.

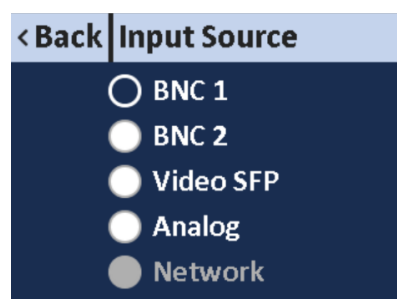
5. Menu and configuration

5.1. Top level menu



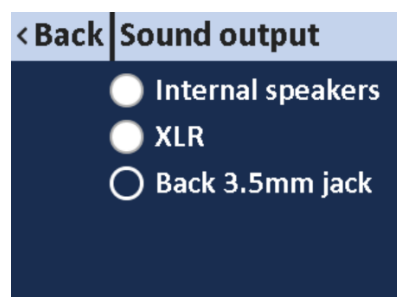
To enter/select any position rotate the MENU knob to highlight it and press the knob. To go back to the upper level menu, highlight the "<Back" option in the top-left corner and press the knob.

5.2. Input source



Input source tab enables quick switching between available audio inputs for monitoring. For Audio-over-IP (C16-AM-12G-IP) option, the Network Input source becomes available about 60 seconds after powering on the device, after network module initializes. Audio-over-IP configuration is described in chapter 7.

5.3. Sound Output



Sound output tab allows for choice between the Internal speakers, two balanced male XLRs for powered speakers and line level 3.5 mm jack dedicated for Bluetooth transmitter dongles. Switching the sound output to headphones is automatic when plug on front panel is detected.



5.4. Network Settings

< Back	Network Settings
	☒ Static ☐ DHCP
MAC	10:00:67:7A:0D:62
IP	192.168.50.54
Subnet Mask	255.255.255.255
Gateway	192.168.50.1

Network settings tab displays the device MAC address, IP, Subnet Mask and Gateway. These parameters are related to Crescendo audio monitor and not to Brooklyn 3 module used in C16-AM-12G-IP option which is a separate network entity and has its own MAC, IP etc. IP displayed here can be used for remote access to the device. IP can be configured as Static and set manually by the user, or assigned by DHCP server in the network.

5.5. Video/Network SFP Info

< Back	Video SFP Info
Vendor name	Multidyne
RX power	-2.40 dBm
Temperature	43.2°C

< Back	Network SFP Info
Vendor name	Multidyne
RX power	-3.32 dBm
TX power	2.03 dBm
Temperature	54.3°C

SFP Info tabs allow access to diagnostic parameters of inserted SFP modules.

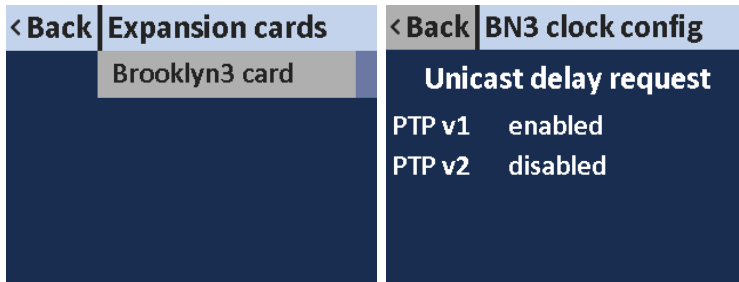
5.6. Display Mode

< Back	Display Mode
	☐ Dark
	☒ Light

Display Mode tab allows for two different color palettes to fit user preferences.

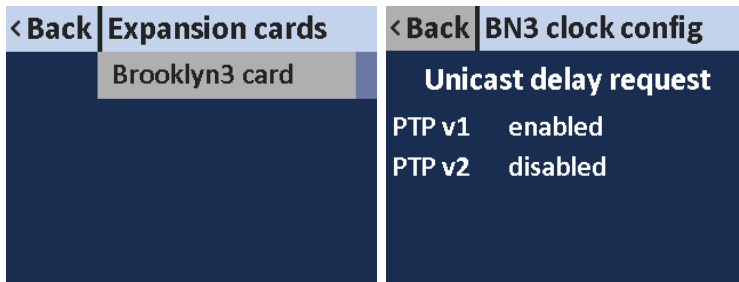


5.7. Expansion cards



Expansion cards tab lists all installed expansions and allows for configuration and diagnostics.

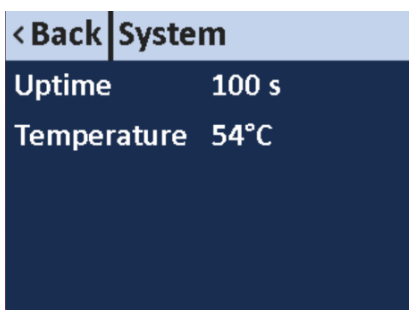
5.8. Presets



Presets tab displays list of all stored presets. The device supports up to **eight presets**. Each preset stores the current audio and alert settings. Presets can be recalled using the **Source Select** buttons labeled **1** to **8**. Pressing and holding a button for approximately **2 seconds** loads the corresponding preset, if it exists.

From the on-device menu, a preset can be loaded or deleted. In the Web GUI and using RESTful API, presets can be created, edited, loaded, and deleted.

5.9. System



System tab displays time since powering on and processor core temperature.



5.10. About

About tab displays details about firmware build present on the device.

< Back About	
Manufacturer	Multidyne
MCU FW rev	1.1.1
Commit	f3f2913
Build Date	Jun 19 2026
Build Time	08:38:45

6. Remote access

6.1. WebGUI

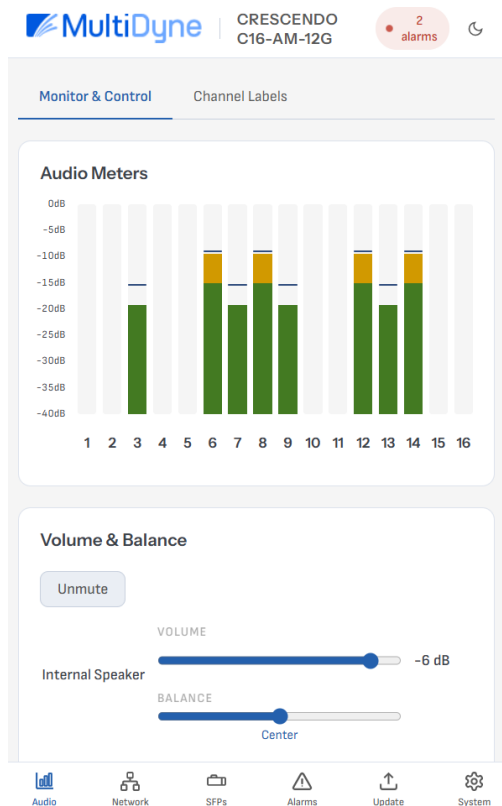
WebGUI allows for full and extended remote control over the C16 Audio Monitor. To access WebGUI, enter the assigned IP address (chapter 5.4) in a browser on a device in the same network as C16 Management Port (chapter 4.2.6). All configuration set in WebGUI will be reflected on device's displays and illuminated buttons in real time. Depending on whether the WebGUI is displayed on standard or on a mobile vertical screen, menu tabs will be displayed on the left side or at the bottom of the screen. Moon/sun symbol in a top right corner allows for dark/light mode toggle.



Desktop view:

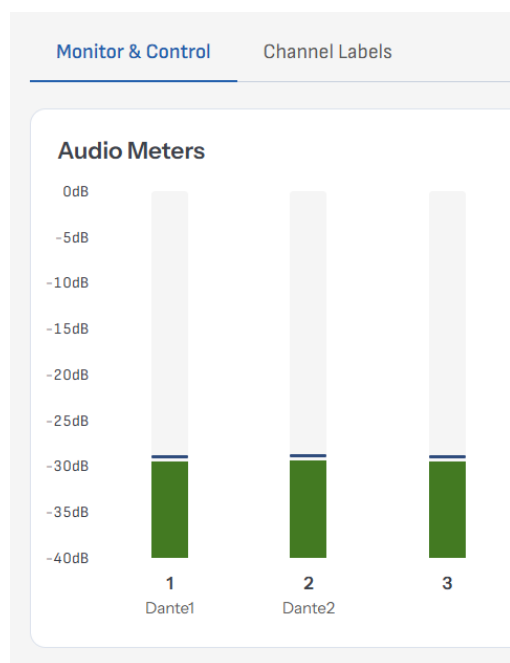


Mobile view:





6.1.1. VU Meters and Channel labels



VU meters for all 16 channels are displayed in “Audio” tab with same coloring and scale as locally (chapter 4.1.3). In “Channel Labels” section, individual user-friendly names can be configured for each channel and saved separately for each input. Labels are displayed below the channel number.

Channel Labels

AUDIO SOURCE
Select the input source to edit its channel labels.

BNC 1 BNC 2 Video SFP Analog **Network**

CH 1 Dante1	CH 2 Dante2	CH 3 Channel 3	CH 4 Channel 4
CH 5 Channel 5	CH 6 Channel 6	CH 7 Channel 7	CH 8 Channel 8
CH 9 Channel 9	CH 10 Channel 10	CH 11 Channel 11	CH 12 Channel 12
CH 13 Channel 13	CH 14 Channel 14	CH 15 Channel 15	CH 16 Channel 16

Save Labels

6.1.2. Basic control

All local configuration options are available using WebGUI. In “Audio” tab user can find independent volume and balance sliders for each sound output, Audio source selection, mix configuration reflecting illuminated buttons on front panel, and sound output selection. Network, SFPs and System tabs provide access to the same configuration and information as local Network (chapter 5.4), SFP (chapter 5.5) and System (chapter 5.9) menu positions.



MultiDyne CRESCENDO C16-AM-12G 2 alarms

Audio

- Network
- SFPs
- Alarms
- Firmware update
- System

Volume & Balance

Internal Speaker
VOLUME: 0 dB to -60 dB (slider at -20 dB)
BALANCE: L to R (slider at Center)

XLR
VOLUME: 0 dB to -60 dB (slider at -30 dB)
BALANCE: L to R (slider at Center)

Rear 3.5mm Jack
VOLUME: 0 dB to -60 dB (slider at -30 dB)
BALANCE: L to R (slider at Center)

Front Jack
VOLUME: 0 dB to -60 dB (slider at -30 dB)
BALANCE: L to R (slider at Center)

Audio Source

BNC 1 BNC 2 Video SFP Analog **Network**

Audio Mode & Pairs Selection

MODE: **Normal** Sum Lt/Rt

PAIRS: **1** 2 3 4 5 6 7 8

CHANNEL SELECT: **Stereo** Left only Right only

Audio Output

Internal Speakers XLR Rear 3.5mm Jack

6.2. RESTful API

The device exposes a RESTful API that can be used to configure and monitor its operation. The full API specification is available in OpenAPI/Swagger format at:

<http://<device-ip>/api/v1/docs.yaml>



6.3. ROSS DashBoard

Device can be added to ROSS Dashboard app using “New TCP/IP Dashboard connect/OpenGear Device” window, entering IP and using “Detect Frame Information” option for automatic settings.

New TCP/IP Dashboard Connect/openGear Device

TCP/IP DashBoard Connect/openGear Device

This wizard allows you to create a connection to a DashBoard Connect or openGear Device through TCP/IP. The wizard should be used when your device is not automatically detected by DashBoard.

IP Address: 192.168.50.87 Detect Frame Information

☒ Automatically track updates to frame information

Display Name: C16-AM-12G

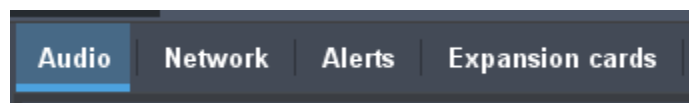
Protocol: ☒ OGP ☐ JSON

Port: 5253

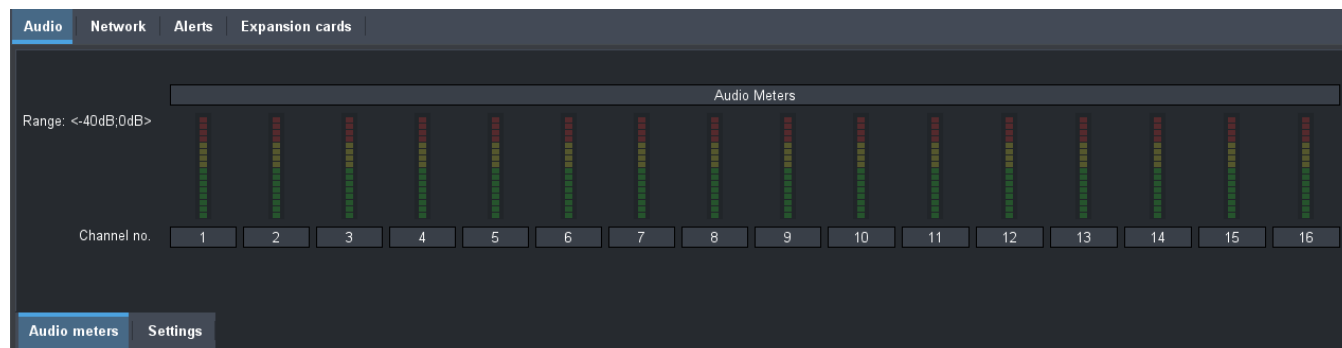
☒ Remember connection settings for this frame

Finish Cancel

C16-AM-12G Dashboard is divided into four screens:



“Audio” screen provides channel level information (Audio meters tab) and source selection + mixing configuration (Settings tab).





Audio | Network | Alerts | Expansion cards

Audio source & output

Audio Source: Network
Audio Output: Internal Speakers
Current Audio Output: Front Jack

Audio Mode & Pairs Selection

Audio mode: L/Rt
Audio channel select: Stereo

Pair no.	1	2	3	4	5	6	7	8
Active audio pairs	Active	Active	Active	Inactive	Inactive	Inactive	Inactive	Inactive

Volume & Balance

Global Mute: Mute

Internal Speaker	XLR	Rear 3.5mm jack	Front Jack
Volume (dB): -60 to 0	Volume (dB): -60 to 0	Volume (dB): -60 to 0	Volume (dB): -60 to 0
Balance: 0	Balance: -30	Balance: -30	Balance: -30

Audio meters | **Settings**

Network screen allows network diagnostics and IP configuration.

Audio | **Network** | Alerts | Expansion cards

MAC Address: FC:C2:3D:33:FA:43

Current IP Settings

IP Address: 192.168.50.87
Subnet Mask: 255.255.255.0
Gateway: 192.168.50.1

Click **Apply** to save the user settings and make them take effect.
Click **Cancel** to revert to the previous settings.

IP assignment: ☐ Static ☒ DHCP

The following network settings are only for static IP mode.

User IP Settings

IP Address: 192.168.50.154
Subnet Mask: 255.255.255.0
Gateway: 192.168.50.1

Apply
Cancel



"Alerts" screen displays current alert status (Active alerts) and allows for configuration of each alert type (Alerts Configuration)

Audio

Network

Alerts

Expansion cards

The red dot indicates an active alert, and the gray dot indicates an inactive alert

Alert name	Active	Alert uptime
MCU over temperature	☐	0
SDI1 not locked	☐	0
SDI2 not locked	☐	0
Audio over-clipping	☐	0
Audio silence	☐	0

Active alerts

Alerts Configuration



Audio | **Network** | **Alerts** | **Expansion cards**

MCU temperature warning

Triggers when MCU temperature exceeds the threshold. Clears when it drops below the lower limit.

Enable ☒

Trigger above (°C)

Clear below (°C)

SDI1 input lock

Triggers when the SDI1 input fails to lock to an incoming signal.

Enable ☐

SDI2 input lock

Triggers when the SDI2 input fails to lock to an incoming signal.

Enable ☐

Audio over-clipping

Triggers when the audio level exceeds the clipping threshold on any monitored channel. Clears when the level returns below the threshold.

Enable ☐

Trigger above (dBFS)

Channel no.

Enabled Channels

☒

☒

☒

☒

☒

☒

☒

☒

☒

☒

☒

☒

☒

☒

☒

☒

Audio silence

Triggers when the audio level falls below the silence threshold on any monitored channel. Clears when the level rises back above the threshold.

Enable ☐

Trigger below (dBFS)

Channel no.

Enabled channels

☒

☒

☒

☒

☒

☒

☒

☒

☐

☐

☐

☐

☐

☐

☐

☐

Active alerts

Alerts Configuration



7. Audio over IP

This chapter is relevant to C16-AM-12G-IP only.

Audio-over-IP capabilities are based on Audinate Brooklyn 3 module. C16 Audio Monitor can subscribe to maximum of 16 channels using Dante, ST 2110-30 or AES67 standards. Brooklyn 3 module has separate firmware that

7.1. Configuration – Dante Controller

Brooklyn 3 module is fully configurable using free official Audinate Dante Controller app.

Dante Controller manual:

https://dev.audinate.com/GA/dante-controller/userguide/webhelp/content/front_page.htm

7.2. Configuration – Remote

WebGUI/ROSS DashBoard Brooklyn 3 configuration is coming in a future update.

Device, network and clock info can be displayed “Expansion cards” tab.

8. Alerts

8.1. WebGUI/ROSS DashBoard Alert configuration

Alert settings are located in “Alerts” tab in WebGUI and “Alerts” screen . In “Configuration” sections there are several alarm types that can be enabled with individual thresholds where applicable. When alarm is enabled and conditions are met, pop-up window will appear on C16 Menu Display and stay until dismissed. List of active alarms with timestamps is visible in “Active Alarms” section. For WebGUI There is also a status indicator visible at all times in the top-right corner showing number of active alarms. Clicking the indicator reveals an active alarms list.



Audio

Network

SFPs

Alarms

Firmware update

System

Active Alarms

Configuration

Active Alarms

TIME	DESCRIPTION
10:27:45	SDI1 input is not locked
10:27:45	SDI2 input is not locked

2 alarms

ACTIVE ALARMS

SDI1 input is not locked

10:27:45

SDI2 input is not locked

10:27:45

The red dot indicates an active alert, and the gray dot indicates an inactive alert

Alert name	Active	Alert uptime
MCU over temperature		0
SDI1 not locked		0
SDI2 not locked		0
Audio over-clipping		0
Audio silence		0

8.2. Alert WebSocket endpoint

The device exposes a WebSocket endpoint for real-time alerts:

ws://<device-ip>/alerts

For example: **ws://192.168.50.87/alerts**.

Clients receive a stream of JSON messages, one alert event per WebSocket message:

```
{  
  "alert": "mcuTemperature",  
  "event": "activated",  
  "raised-at": 461,  
  "payload": { "temperature": 61 }  
}
```



Fields

- **alert** – alert type:
 - *mcuTemperature*
 - *sdi1NoLock*
 - *sdi2NoLock*
 - *audioOverClipping*
 - *audioSilence*
- **event** – alert state change:
 - *activated* – alert condition appeared.
 - *cleared* – alert condition disappeared.
 - *disabled* – alert turned off in configuration.
 - *updated* – alert still active, payload changed.
- **raised-at** – time in seconds since device power-up when the event occurred.
- **payload** (optional) – extra data, depending on alert type:
 - *mcuTemperature*:
`"payload": { "temperature": 61 }`
 - *audioOverClipping*, *audioSilence*:
`"payload": { "affectedChannels": [1, 3, 5, 7] }`
List of affected channel indices.
 - *sdi1NoLock*, *sdi2NoLock*
No payload is provided.

9. Firmware Update

Firmware update packages are provided by the manufacturer.

The C16-AM-12G supports 3 methods of firmware update:

- With PC connected to the USB-C port located on the front panel
- Using WebGUI
- Using RESTful API



9.1. USB-C firmware update

Firmware update using USB-C port requires firmware file with “.uf2” extension provided by the manufacturer.

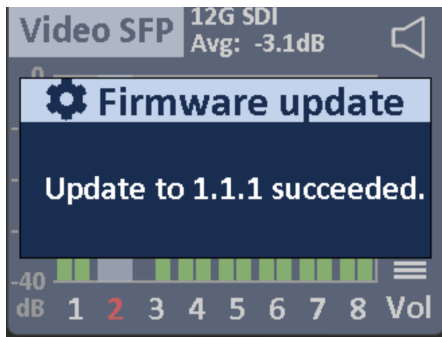
- Connect a Windows/Linux/macOS device using USB-C cable to powered-on Crescendo Audio Monitor.
- A new drive should be discovered named C16_UPDATE



- Copy “.uf2” firmware file to C16_UPDATE
- The Crescendo display will show messages about progress of update.



- Do not power off or navigate menus until “Update to X.X.X is successful” is displayed on C16.

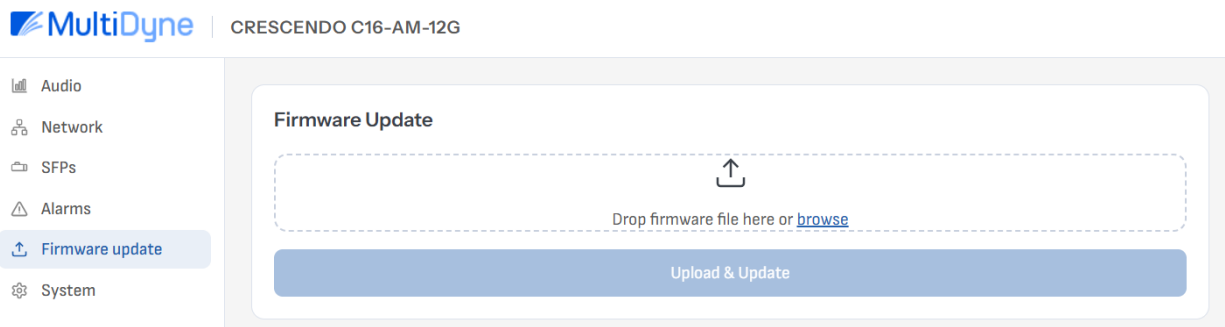




9.2. WebGUI firmware update

Firmware update using the WebGUI requires firmware file with “.bin” extension provided by the manufacturer.

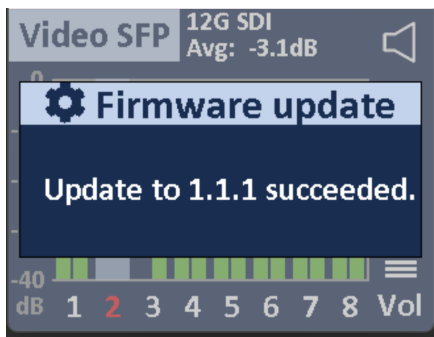
- Access WebGUI by entering IP found in C16 network settings in a browser on a device on the same network.
- Choose the “Firmware update” tab in menu on the left.



- Drag and drop or browse for “.bin” firmware update file.
- ‘Upload & Update’ button, wait for upload to complete.

✓ Update successful — device is rebooting 100%

- Do not power off or navigate menus until “Update to X.X.X is successful” is displayed on C16.





10. Technical Specifications

10.1. Interfaces

Parameter	Specification
SDI Inputs	2 × BNC, 1 × 12G Video SFP slot
SDI Formats	HD-SDI, 3G-SDI, 6G-SDI, 12G-SDI
SDI Outputs	2 × BNC loop outputs with cable drivers
Network Interfaces	3 × RJ45 Ethernet, 1 × 1GbE network SFP slot
Network Audio Standards (C16-AM-12G-IP only)	Dante, AES67, SMPTE ST 2110-30
SFP Interface	2 SFP slots for optional 12G SDI or network module
Video Output	HDMI 2.0, Type A, feedback of selected BNC1/BNC2/SFP SDI input
USB Interface (front panel)	USB 2.0 USB-C (firmware update only)
Display Type / Resolution	2 × 2" LCD Transflective 320 × 240 px display, 160° viewing angle
Remote control	WebGUI RESTful API ROSS DashBoard

10.2. Audio

Parameter	Specification
DB25 Analog In (4.2.1)	• Input clip level 24 dBu • 32 bit ADC • Frequency response +/- 0.2 dB (20 Hz - 20 kHz) • THD+N < 0.05% (20 Hz - 20 kHz) • Dynamic range > 90 dB • SNR > 95 dB



XLR Outputs (4.2.2)	• 24 dBu signal level at max volume (clip @ 24 dBu) • Passband gain +/- 0.5 dB (20 Hz - 20 kHz) • Frequency response +/- 0.2 dB (20 Hz - 20 kHz) • THD+N < 0.05% (20 Hz - 20 kHz) • SMPTE / DIN 45403 IMD < 0.04% • Dynamic range > 90 dB • SNR > 95 dB
1/4-inch headphone jack (4.1.9)	• 18 dBu signal level at max volume • Passband gain +/- 0.5 dB (20 Hz - 20 kHz) • Frequency response +/- 0.2 dB (20 Hz - 20 kHz) • THD+N < 0.05 % (20 Hz - 20 kHz) • SMPTE / DIN 45403 IMD < 0.04 % • Dynamic range > 90 dB • SNR > 95 dB
3.5mm Output (4.2.3)	• 4 dBu signal level at max volume • Passband gain +/- 0.5 dB (20 Hz - 20 kHz) • Frequency response +/- 0.2 dB (20 Hz - 20 kHz) • THD+N < 0.05% (20 Hz - 20 kHz) • SMPTE / DIN 45403 IMD < 0.04 % • Dynamic range > 85 dB • SNR > 85 dB
Internal speakers	• 2 x stereo speakers (2 W rated, 4 W maximum, 220 Hz - 20 kHz) • 1 x mid/low-frequency center speaker (limited to max 5 W output, 75 Hz - 16 kHz) • Speakers crossover at 800 Hz • 82 dBA @1 kHz max volume
Audio channels	• 16
Mixing modes	• Left only • Right only • Lt/Rt 5.1-to-stereo downmix • Sum

10.3. Mechanical and power

Parameter	Specification
Form Factor	1 RU standard 19" with mounting brackets
Dimensions	• Width 48.3 cm with mounting brackets • Depth 21 cm (24.3 cm with front panel encoders and back panel connectors)
Weight	2 kg (without PSU)
Power Input	• 12 VDC, 35 W (Use only with original MultiDyne MDS050-P120 PSU) • Second power input for redundancy



10.4. Additional notes

NOTICE REGARDING IMAGE RETENTION / BURN-IN

Please be aware that displaying static images on the screen for extended periods can cause **image retention** (also known as "ghosting" or "burn-in"). This is a characteristic behavior of liquid crystal display (LCD) technology and does not indicate a manufacturing defect. For LCD displays, burn-in is not permanent and should recover after leaving the device powered-off for 48 hours.

10.5. Regulatory compliance

United States (FCC Compliance)

- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
 - (1) This device may not cause harmful interference, and
 - (2) this device must accept any interference received, including interference that may cause undesired operation
- Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 - Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canada (ISED Compliance)

- CAN ICES-003 (B) / NMB-003 (B)
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

European Union (CE Compliance)

This product complies with the essential requirements and other relevant provisions of the EMC Directive 2014/30/EU and the RoHS Directive 2011/65/EU.

This equipment has been tested and found to comply with the limits for Class B Information Technology Equipment / Multimedia Equipment according to EN 55032 and EN 55035 standards, making it suitable for use in residential, commercial, and light-industrial environments.



Cable & Interface Requirements

To ensure continued compliance with FCC, ISED, and CE electromagnetic compatibility (EMC) limits, connection to external digital interfaces (such as HDMI, USB, or Ethernet) must be made using high-quality shielded cables. Using unshielded cables may lead to radio or television interference and void the compliance status of this product.

11. Ordering Codes

Parameter	Specification
C16-AM-12G	12G-SDI 16 Channel Embedded Audio Monitor. 1 RU; Includes External Power Supply
C16-AM-12G-IP	12G-SDI 16 Channel Embedded Audio Monitor with Audio-over-IP option (Dante, ST2110-30, AES67). 1 RU; Includes External Power Supply
C16-AM-BN3	Hardware and firmware upgrade from C16-AM-12G to C16-AM-12G-IP
C16-PSU	Redundant power supply

12. Technical Support

For Technical Support, contact support@MultiDyne.com

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