

► DA1414

User Manual



REVA0_DA1414_User_Manual

Thank you for purchasing this product.

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.



Surge Protection Device Recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.



Eco Friendly Packaging

This product has been packaged with fully recyclable materials, including compostable bags. Please help us to help the environment.

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Introduction

AWAITING MARKETING INFO

FEATURES:

- 14 x 14 audio Matrix with Dante®, balanced / unbalanced analogue and USB audio
- Supports separation (mono) of all audio channels and independent control resulting in switching of up to 14x14 audio feeds
- Analogue audio inputs support both balanced and unbalanced audio + MIC line level signals
- MIC line level supports 48V Phantom power
- Selectable USB audio between USB-C and USB Type-B inputs with USB audio class 2.0 support
- Supports: volume, balance, high/low shelf, high/low pass filter, and 5 band parametic equalizer control per input and output (TBC)
- Supports 48kHz 24-bit sampling rate for A/D and D/A conversion
- Supports 44.1, 48 & 96 KHz sample rates @ 24 Bit
- Configurable Dante[®] device latency (supports 2, 3, 4, 5 or 10ms configurable using Dante[®] Controller)
- Features 2x Dante[®] LAN ports supporting network redundancy
- Supports AES67 RTP audio transport
- Supports power via PoE+ (Class 4 IEEE 802.3at) on Dante® Primary LAN connection or local power supply
- Control via front panel, RS-232, TCP/IP and web-GUI
- 1U design for 19" rack mount integration Rack mounting kit included

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Front Panel Description



Rear Panel Description



- Phantom Power Input Indicator displays which input has phantom power applied
- 2 4 x 3-pin Phoenix Connector Analogue Audio Inputs supports both balanced and unbalanced signals including 48V phantom power
- 3 USB Select Button selects which USB port is active
- USB-B Input Connector the LED will illuminate when this port is active
- USB-C Input Connector the LED will illuminate when this port is active

- 6 4 x 3-pin Phoenix Connector Analogue Audio Outputs supports both balanced and unbalanced signals
- 1 x 3-pin Phoenix Connector for RS-232 serial controlt
- I x TCP/IP RJ45 Port (Dante and PoE Enabled)
- I x TCP/IP RJ45 Port (Dante Enabled) the DA1414 will only allow 1 network connection at a time, the secondary RJ45 port is for network redundancy
- 📵 Reset Button
- 1 Mains C14 IEC Power Inlet
- Mains Power Switch



Contact: support@blustream.com.au | support@blustream-us.com | support@blustream.co.uk ______ 05

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Resetting the DA1414

To reset the DA1414 back to factory default, use a small instrument to press down the recessed button on the back of the unit labelled RESET. Hold for at least 10 seconds before releasing.

The reset process takes approximately 30 seconds.

Operation and Connections

Basic operation of the DA1414 can be achieved via the front and rear panel: connect the audio input and audio output devices, the TCP/IP port, and power to the rear of the unit:

- Buttons 1-4 will allow for configuration of the analogue audio inputs and phantom power
- The Menu Button will scroll through a few functions of the DA1414
- The menu can be navigated using the arrow, confirm and cancel buttons

For full configuration of the DA1414, the Dante Controller software and the in-built Web-GUI must be utilised.

Dante[®] Controller

The Dante[®] Controller software is required in order to setup and configure the DA1414 as well as control a Dante[®] network.

Audinate provide extensive training videos and documentation on their website, which can be found here: <u>http://www.audinate.</u> <u>com/products/software/dante-controller</u>

Upon connecting the DA1414 to a compatible network, the Dante[®] Controller software should automatically discover the device. The DA1414 will appear in the Dante[®] Controller as 'DA1414-xxxxxx'. On the Routing tab, audio can be routed as a matrix between Dante[®] transmitters and receivers in your system.



The DA1414 is shipped with its network settings set to obtain an IP Address automatically; if a DHCP server is present on your network, it will provide the DA1414 with an IP Address. If no DHCP server is present then the DA1414 will receive a default IP Address in the 169.254.xxx.xxx range.

Advanced Dante® Settings

Further settings of the DA1414 can be configured in the Dante[®] Controller software. Under the Device Info tab, select the DA1414 to open the Device View window.

Routing	De	evice Info	Clo	ck Status	Ne	twork Status		Events
Device A I	Model Name	Product Version	Dante Version	Device Lock	Primary Address	Primary Link Speed	Secondary Address	Secondary Link Speed
DA1414-273fd0	DA1414	1.0.1	1.3.3.5		10.0.0.103	1Gbps		Link down
					1		1	
1 devices			Multicast Audi	o Bandwidth: 0 I	ops	Event Log	Clock Status N	Nonitor

The sample rate and latency can be adjusted under the Device Config tab, while network settings and the IP address can be set under the Network Config tab..

Please note: That Dante[®] products can only transmit or receive audio from other Dante[®] products that are set up with the same sample rate. A mismatch in sample rate may stop audio from transmitting.

🔸 Dante Co	ontroller	- Device	View (DA141	14-273fd0)				-	
File Device	s View	Help							
€ ×	0	୍ୟ	⊞ 🖯		DA1414-273fd0		\checkmark		?
Receive	Tran	ısmit	Status	Latency	Device Config	Networ	k Config	AES	67 Config
Rename D	evice	DA141	4-273fd0				Арр	bly)
Sample Ra	te								
				Sample Rate	48k	~			
			Sa	mple Rate Pull-up:		\sim			
			This device	does not support s	ample rate pull-up co	onfiguration.			
Encoding					Clocking				
	I	Encoding:	PCM 24	~	Unicast Del	ay Requests:	Disabled		~
Device Lat	ency								
				Latency	: 2.0 msec	~			
Reset Devi	ce		\subset	Reboot	Clear Config				

Web-GUI - Log In and Initialisation

The following pages will take you through the operation of the units web-GUI. You must connect a TCP/IP RJ45 socket to your local network, or directly from your computer to the DA1414, in order to access the product's web-GUI. By default, the unit is set to DHCP; however, if a DHCP server (eg: network router) is not installed, the unit's IP address will revert to below details:

Default IP Address is: 192.168.0.200

Default Admin Username is: blustream

Default Admin Password is: @Bls1234

The DA1414 is able to be accessed via it's domain name if the IP address is not known: Default mDNS is: da1414.local

Login Page:

The web-GUI supports multiple users along with multiple user permissions as follows:

- Admin (Blustream)
- User Accounts

The Admin account allows full access to all functions and configuration of the unit. User accounts can be utilised, each with individual login detail and can be assigned permissions to specific areas and functions.

– Guest

When enabled, the control page can be accessed without logging in.

BLU STR E ∕∕∕∕∕~→	Login	
Control Login		O Power
	Select a user	
	Blustream	

Please note: the first time the Administrator logs into the web-GUI of the DA1414, the default password must be changed to a unique password. Please retain this password for future use. Forgetting the password will mean having to factory reset the unit, losing all prior network and configuration settings.

New password regulations requires passwords being set for products to be a minimum of 8 characters and contain a minimum of: 1 x uppercase letter, 1 x lowercase latter, 1 x symbol and 1 x number.



Login Page (continued)

Update Password	×
Blustream	
New password	
Confirm new password	
	Update Password

Guest Control Page:

When the Guest user is enabled, the control page is able to be accessed from the web-GUI without logging in. Depending on the permissions set, control for the Matrix, Phantom Power, Inputs & Outputs, DSP and Presets can be accessed from here.

Permissions can be set or revoked from the Users page when logged in, depending on the requirements of the installation. It is recommended to set permissions for the Guest user to avoid unwanted access and/or changes to the DA1414 system.

BLUSTR E A∕V∕∽→	Control
Control Login	Power
Control ~	
Analogue Input $$	
Dante Input $$	
USB Input V	
Input Group ∨	
Analogue Output $$	
Dante Output $$	
USB Output $$	
Output Group ∨	
Input PEQ ~	
Output PEQ ~	
Recall Preset	
Preset 1 Preset 2 Preset 3 Preset 4 Preset 5	Preset 6 Preset 7 Preset 8

Web-GUI - Control

After logging into the DA1414, the user will be directed to the Control page. Configuration of the matrix can be done here, as well as recalling presets as needed.



Routing Matrix:

For any audio sources connected to be able to output a signal, it must be routed in the Routing Matrix. Input channels are listed as columns along the x-axis, and output channels are listed as rows along the y-axis.

To route a signal, navigate the to the desired input channel. In the column under the input name, find the row that corresponds to the desired output channel, and press the button that intersects the desired column and row.

In the following examples, the x-axis will be labelled 1-14 left to right, and the y axis will be labelled 1-15 top to bottom.

- To route Analogue Input CH1 to Analogue Output CH1, select the button in position (1,1)
- To route Dante Input CH1 to Dante Output CH1, select the button in position (5,5)

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Routing Matrix (continued)

- To route Analogue Input CH1 to All Outputs, select the button in position (1,15)

	Analogue Input CH1	Analogue Input CH2	Analogue Input CH3	Analogue Input CH4	Dante Input CH1	Dante Input CH2	Dante Input CH3	Dante Input CH4	Dante Input CH5	Dante Input CH6	Dante Input CH7	Dante Input CH8	USB Input Left	USB Input Right
Analogue Output CH1														
Analogue Output CH2														
Analogue Output CH3														
Analogue Output CH4														
Dante Output CH1														
Dante Output CH2														
Dante Output CH3														
Dante Output CH4														
Dante Output CH5														
Dante Output CH6														
Dante Output CH7														
Dante Output CH8														
USB Output Left														
USB Output Right														
All Output														

- To route an input to multiple outputs, select the desired outputs in that input's column
- To route multiple inputs to a single output, utilisation of the bus is required (see page 11)

Recall Preset:

To recall a saved preset, simply press the desired preset button. Presets can be saved and configured from the preset page in the web-GUI.

Recall Preset									
Preset 1	Preset 2	Preset 3	Preset 4	Preset 5	Preset 6	Preset 7	Preset 8		

Web-GUI - Input

The Input page allows for adjustment and configuration of all input sources, including grouping options for ease of control. To change the name of an input, type a new name into the desired label for the corresponding input.

The input level sensitivity can be adjusted from -30dB to +30dB by using the corresponding slider for the desired channel. Fine-tuning of the sensitivity can be achieved by using the increment button **1** or the decrement button **3**, or by manually inputting the value **2**. The channel can be muted by pressing the mute button **4**.

Please note: The input gain adjustment is designed to adapt to different input amplitudes. When the input gain is adjusted beyond 0dB, if the incoming audio signal level is too high, it is possible to distort the input signal.



Channels can be linked as stereo pairs by pressing the CHx/CHx Stereo toggle.

Please note: If the stereo toggle is on, channels will be treated as a L/R stereo pair (i.e., CH1/CH2, CH3/CH4, etc.) and will apply changes made to the corresponding channel also.

Analogue Input:

The DA1414 supports both line level input and microphone input including 48V phantom power.

Phantom power can be enabled by toggling the Phantom Power switch for the desired channel.

WARNING: Phantom power has the potential to damage equipment that it isn't designed for. Always turn off phantom power, then plug in the microphone, and only then turn on phantom power if the microphone requires it. Always turn off phantom power before unplugging the microphone.

input CH1 -30dB -25dB -20dB -15dB -10dB -5dB 0dB 5dB 10dB 15dB 20dB 25dB 30dB 0 d input CH2 -30dB -25dB -20dB -15dB -10dB -5dB 0dB 5dB 10dB 15dB 20dB 25dB 30dB 0 d input CH2 -30dB -25dB -20dB -15dB -10dB -5dB 0dB 5dB 10dB 15dB 20dB 25dB 30dB 0 d input CH2 -30dB -25dB -20dB -15dB -10dB -5dB 0dB 5dB 10dB 15dB 20dB 25dB 30dB 0 d input CH2 -30dB -25dB -20dB -15dB -10dB -5dB 0dB 5dB 10dB 15dB 20dB 25dB 30dB 0 d					OFF	H1/CH2 Stereo	OFF CH	ntom Power	CH1 Phai
CH2 Phantom Power	10dB 15dB 20dB 25dB 30dB 0 dB	iB 10dB	OdB	-5dB	-10dB	-15dB	-20dB	-25dB	-30dB
input CH2 -30dB -25dB -20dB -15dB -10dB -5dB 0 dB 5dB 10dB 15dB 20dB 25dB 30dB 0 dB CH3 Phantom Power Imput CH3 -30dB -25dB -20dB -15dB -10dB -5dB 0 dB 5dB 10dB 15dB 20dB 25dB 30dB 0 dB input CH3 -30dB -25dB -20dB -15dB -10dB -5dB 0 dB 5dB 10dB 15dB 20dB 25dB 30dB 0 dB							OFF	ntom Power	CH2 Pha
CH3 Phantom Power CH3/CH4 Stereo CH3	10dB 15dB 20dB 25dB 30dB 0 dB	dB 10dB	OdB	-5dB	-10dB	-15dB	-20dB	-25dB	-30dB
-30dB -25dB -20dB -15dB -10dB -5dB 0dB 5dB 10dB 15dB 20dB 25dB 30dB 0 d					OFF	H3/CH4 Stereo	оғғ сн	ntom Power	CH3 Pha
	10dB 15dB 20dB 25dB 30dB 0 dB	dB 10dB	OdB	-5dB	-10dB	-15dB	-20dB	-25dB	-30dB
CH4 Phantom Power							OFF	ntom Power	CH4 Pha



Dante Input:

The DA1414 can route audio to and from other Dante audio devices.

This must be set in the Dante Controller App. Please refer to the Dante section of the manual.



USB Input:

The DA1414 can send and receive audio from a USB device. Connect the device to the either the USB-B or USB-C port and select the desired port on the web-GUI.

5B Input ^																
	Port Selec	t	USB-B		USB-C			Left/Right Ste	reo OFF							
USB Input Left	-30dB	-25dB	-20dB	-15dB	-10dB	-5dB	OdB	5dB	10dB	15dB	20dB	25dB	30dB	0 dB	×	i
USB Input Right	-30dB	-25dB	-20dB	-15dB	-10dB	-5dB	OdB	5dB	10dB	15dB	20dB	25dB	30dB	0 dB	*	i

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Input Group:

The grouping feature allows you to combine audio input channels resulting in a single volume and source control for multiple inputs. Up to four groups can be used simultaneously.

Use the channel toggles to assign inputs to a group; each channel can only be assigned to a single group.



Web-GUI - Output

The Output page allows for adjustment and configuration of all outputs, including grouping options for ease of control. To change the name of an output, type a new name into the desired label for the corresponding output.

The output volume can be set by moving the slider left or right for the desired channel.

Fine-tuning of the volume can be achieved by using the increment button ① or the decrement button ③, or by manually inputting the value ②. The channel can be muted by pressing the mute button ④.



A delay can set between 0ms and 50ms by using the delay slider above each output channel. This can be used to rectify lip sync and other similar issues.

Channels can be linked as stereo pairs by pressing the CHx/CHx Stereo toggle.

Please note: If the stereo toggle is on, channels will be treated as a L/R stereo pair (i.e., CH1/CH2, CH3/CH4, etc.) and will apply changes made to the corresponding channel also.

Analogue Output:

The supports both balanced and unbalanced audio output, including from devices connected to the Dante® network



Dante Output:

The DA1414 can route audio to and from other Dante audio devices.

This must be set in the Dante Controller App. Please refer to the Dante section of the manual.



USB Output:

The DA1414 can send and receive audio from a USB device. Connect the device to the either the USB-B or USB-C port, and ensure the desired port is active.



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Output Group:

The grouping feature allows you to combine audio output channels resulting in a single volume and source control for multiple outputs. Up to four groups can be used simultaneously.

Use the channel toggles to assign outputs to a group; each channel can only be assigned to a single group.



Web-GUI - DSP

The DA1414 features an in-built DSP featuring a graphic parametric equaliser (PEQ) with up to 8 bands. All input channels, output channels and group channels, can access the PEQ independently and save their equaliser settings to a custom preset.



Input/Output PEQ:

To modify a channel's PEQ settings, select the desired channel from the dropdown list. A graphic visualisation of the PEQ is shown, as well as parameters for precise control.

Please note: If the stereo toggle is on, channels will be treated as a L/R stereo pair (i.e., CH1 & CH2, CH3 & CH4, etc.) and will apply changes made in the PEQ to the corresponding channel.

There are 3 presets for the equaliser: Flat, Custom 1 and Custom 2.

- The Flat preset will disable the PEQ for that channel and cannot be edited.
- Custom 1 and Custom 2 allow the graphic equaliser to be edited: simply drag and drop the numbered bands on the graphic equaliser



Parameters:

If an EQ band is not required, press the band's label in the parameters section to disable it.

The filter type of the band can be change to the following filters:

Parametric

- Each parametric EQ (PEQ) allows you to make a cut or a boost to a band on the frequency spectrum. 'Freq' will set the centre frequency on the band which will be the centre of the bell shaped boost or cut.

Gain will set the amount of boost or cut being applied.

Q refers to how narrow or wide the boost or cut is. The higher the Q value, the narrower the bandwidth will be. Similarly, the lower the Q value, the wider the bandwidth will be.

A visual example showing the effect the Q value has on the shape of the curve is shown below.



Parameters (continued)

Low Pass Filter

– A Low Pass Filter removes high frequencies while allowing low frequencies to pass through.

Setting the 'Freq' will attenuate all frequencies above the set frequency.

The slope determines the rate of attenuation, measured in decibels (dB) per octave. Setting this to zero will disable the Low Pass Filter. Drastic attenuation over a small range of frequencies, or gradual attenuation over a larger range of frequencies, can be achieved by adjusting the slope.

High Pass Filter

- A High Pass Filter removes low frequencies while allowing high frequencies to pass through.

Setting the 'Freq' will attenuate all frequencies below the set frequency.

The slope determines the rate of attenuation, measured in decibels (dB) per octave. Setting this to zero will disable the High Pass Filter. Drastic attenuation over a small range of frequencies, or gradual attenuation over a larger range of frequencies, can be achieved by adjusting the slope.

Low Shelf

 A Low Shelf represents a flat raise or drop of all frequencies below the 'Freq' value. This leaves the frequencies above this spot untouched by the Low Shelf.

High Shelf

- A High Shelf represents a flat raise or drop of all frequencies above the 'Freq' value. This leaves the frequencies below this spot untouched by the High Shelf.

To quickly apply a DSP configuration, the Custom 1 and Custom 2 presets can be pre-configured and quickly changed to by pressing the corresponding button.

Press the Reset button to set the Custom 1 / Custom 2 preset back to it's original state.

Usage:

Using the DSP, it's possible to configure many different setups, e.g., a subwoofer channel by changing the Audio Mode from the Output page and using the Low Shelf to EQ the signal.



An example of a fully configured setup has been provided below:

Web-GUI - Preset

Once the DA1414 has been set up, the current configuration can be saved to a preset. If multiple presets are saved, they can be quickly switched between from the Preset page or the Control page.

A preset can be named by entering the name into the Preset Name field.

BLU	STRE		∕~►					Pre	eset				
Control	Input	□→ Output	ddd DSP	Preset	Users	Settings	System	Information	Update Password	Log Out			O ower
Presets													
		Preset Nam	e	· · · · · · · · · · · · · · · · · · ·			Preset Save	Preset [Delete	Preset Recall		 	
1		Preset 1					Save		Pelete	Recall			
2		Preset 2					Save		elete	Recall			
3		Preset 3					Save)elete	Recall			
4		Preset 4					Save)elete	Recall			
5		Preset 5					Save)elete	Recall			
6		Preset 6					Save)elete	Recall			
7		Preset 7					Save		elete	Recall			
8		Preset 8					Save)elete	Recall			

To save the current configuration to a preset, press the Save button.

The saved preset can now be recalled via the Recall button.

To delete a preset, press the Delete button.

Web-GUI - Users

The DA1414 can be set up with different levels of access to the web-GUI per user. Access can be restricted based on which channels the users can see and configure, and which presets the user can select, and which pages remain accessible.

Please note: A separate user should be set up and used after installation of the unit in order to prevent non-administrator users from changing settings and potentially damaging connected equipment.

8 8 8 8 8 8 8 8 8 8 8 9		
BLU STR E A∕∕∕∕-→	Users	
Control Input Bus Output DSP	Irigger Preset Verset Settings System Information	Update Log Out Power
		Users Help New User
Username Ena	bled Actions	
Guest	Permission	

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Web-GUI Users (continued)

To create a new user, press the New User button. Set a username and password and press Create.

Create User	×
Username	
Password	
Confirm Password	
	Create

The new user will appear in the list.

Username	Enabled	Actions
Guest		Permission
User1		Permission Delete Update Password

Press the Permissions button in order to modify the permissions for that user in a sub menu.

	Per	mission	
Control			
Matrix			
Phantom Power		<u> </u>	
Analogue CH1	Analogue CH2	✓ Analogue CH3	✓ Analogue CH4
Input			
		Analogue CH3	Analogue CH4
Dante CH1	Dante CH2	Dante CH3	Dante CH4
Dante CH5	Dante CH6	✓ Dante CH7	✓ Dante CH8
USB Left	USB Right	_	_
✓ Input Group 1	✓ Input Group 2	✓ Input Group 3	✓ Input Group 4
Output			
Analogue CHI			Analogue CH4
✓ Dante CH1	✓ Dante CH2	✓ Dante CH3	✓ Dante CH4
✓ Dante CH5	✓ Dante CH6	✓ Dante CH7	✓ Dante CH8
USB Left	USB Right	_	_
Output Group	A 🗹 Output Group E	3 🗹 Output Group (C 🗹 Output Group D
DSP			
✓ Input PEQ	Uutput PEQ		
Preset	Dresst 1	Dresst 2	Dresset 2
	Preset 1	Preset 2	Preset 3
Preset 4	Preset 5	Preset 6	Preset /
V Preset 8			
			Cancel Confirm
		•	
		•	
Arow		want to dal	ata Ucar12
Are y	ou sure you	Want to der	ete User I :

To enable / disable a user, press the respective toggle. To delete a user, press the respective Delete button.

To change the password for a user, press the respective Update Password button

Please note: Admin (blustream) and Guest user cannot be deleted. The guest user should either have permissions set or be disabled to prevent unwanted access, as they do not require credentials for control of the unit.

Web-GUI - Settings

Network settings for the DA1414 can be configured from this page, such as: IP settings, Telnet and mDNS.

The default network settings can be restored by pressing the Set Network Defaults button.

To save the current network configuration, press the Save button.

BLU STR E				Set	tings			
Control Input	Output DSP	Preset Users	Settings System	Information	Update Password			O Power
IP Setting								
IP Mode	Static	DHCP						
IP Address	10.0.0.103				Gateway	10.0.0.1		
Subnet	255.255.255.0				Telnet Port	23	Enable	
TCP Port	8000	Enab	le		Domain Name	DA1414	local	
			Set Netwo	rk Defaults	Save			

IP Settings:

- IP Mode
 - Static / DHCP
- IP Address
 - Disabled when in DHCP mode
- IP Subnet
 - Disabled when in DHCP mode
- TCP Port
 - Enable / Disable (default: 8000)
- Gateway
 - Disabled when in DHCP mode
- Telnet Port
 - Enable / Disable (default: 23)
- Domain name (mDNS)
 - mDNS is a protocol used in network environments to resolve hostnames to IP addresses within local networks without the need for a dedicated DNS server. The DA1414 is able to be accessed via the hostname if the IP address is not known. By default this is set to da1414.local

To restore network default settings, press the Set Network Defaults button.

Press the Save button to apply any changes made.

Web-GUI - System

The System page allows for configuration of the DA1414, enabling and disabling features, as well as firmware upgrading and factory resetting.



Power

Set the system power to on or off

Standby Mode

There are two standby modes that can be selected:

Sleep	the unit will power off but the API and web-GUI remain active
Standby	the DSP board remains powered allowing the signal sensing feature to power on the unit

Key Lock

Lock or unlock the front panel buttons

Front Panel Lights

Set the duration the LEDs on the front panel of the unit will remain on for. If the Include Power LED box isn't checked, it will act independently to the rest of the front panel LEDs.

Serial Baud Rate

Select the Baud Rate for the RS-232 Serial port 9600/19200/38400/57600/115200

MCU Update Browse your device for an MCU firmware file to upload to the unit.

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Web-GUI - System (continued)

DEP SDK Update Browse your device for a DEP firmware file to upload to the unit.

Factory Reset (Excludes Network Settings) Erases all settings, expect for network settings, and reboots the unit.

Factory Reset All (Includes Network Settings) Erases all settings and reboots the unit.

Reboot Reboots the unit.

Web-GUI - Information

The Information page displays the model name, serial number, web-GUI firmware version and MCU firmware version of the DA1414. It also displays network configuration, temperature and uptime data.

BLUSTR E A/V∕-→	Information
Control Input Output DSP Prest Users Settings System	Information Update Password Log Out Power
Status	
Model	DA1414
- Firmware Version	V1.0.1b/V2.0.0
DEP SDK	V1.3.3.5_20240910
- Hostname	DA1414
IP Address	10.0.0.103
Subnet Mask	255.255.255.0
Gateway	10.0.0.1
MAC Address	34:D0:B8:27:3F:D0
Temperature	49 °C
Uptime	0000:00:19:28

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Specifications

- Audio Input Connectors: 2x RJ45, female (1Gb Dante[™] Primary/Secondary network), 12-PIN Phoenix connector (4CH balanced/unbalanced analogue audio/MIC), USB-B, USB-C
- Audio Output Connectors: 2x RJ45, female (1Gb Dante[™] Primary/Secondary network), 12-PIN Phoenix connector (4CH balanced/unbalanced analogue audio/MIC), USB-B, USB-C
- RS-232 serial port: 1 x 3-Pin Phoenix connector
- TCP/IP Control: 2 x RJ45, female (1Gb Dante™ Primary/Secondary network)
- Casing Dimensions (W x D x H): 437mm x 245mm x 44mm
- Dimensions Including Connections (W x D x H): 437mm x 252mm x 44mm
- Shipping Weight: 3.5kg TBC
- Operating Temperature: 32°F to 104°F (0°C to 40°C)
- **Storage Temperature :** -4°F to 140°F (-20°C to 60°C)
- Power Supply: Internal 110-250V AC

NOTE: Specifications are subject to change without notice. Weights and dimensions are approximate.

Package Contents

- 1 x DA1414
- 9 x 3 pin 3.5mm pitch Phoenix connector
- 1 x 19" Rack Mounting kit
- 4 x Mounting feet
- 1 x Quick Reference Card
- IEC Power Cable(s)

Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

RS-232 Configuration and Telnet Commands

The DA1414 can be controlled via serial and TCP/IP.

The default RS-232 communication settings are:

Baud rate: 57600 Data bits: 8

Stop bits: 1

Parity bit: none

The following pages list all available serial / IP commands.

Commonly Used Serial Commands

There are several commands that are commonly used for control and testing:

STATUS	Status will give feedback on the switcher such as outputs on, type of connection, etc.
PON	Power on
POFF	Power off
OUTON/OFF	Toggling the main output ON or OFF as required
	Example: OUTON (This would turn the main output on)
OUT FRyy	(yy is the input)
	Example: OUT FR04 (This would switch the main output to source input 4)

Common Mistakes

- Carriage return: Some programs do not require the carriage return where as other will not work unless sent directly after the string. In the case of some Terminal software the token <CR> is used to execute a carriage return. Depending on the program you are using this token maybe different. Some other examples that other control systems deploy include \r or 0D (in hex)
- Spaces: Blustream commands do not require space between commands unless specified. There may be some programs that require spacing in order to work.
 - How the string should look is as follows: OUTON
 - How the string may look if spaces are required: OUT{Space}ON
- Baud rate or other serial protocol settings not correct

RS-232 Configuration and Telnet Commands (continued)

COMMAND	ACTION	COMMAND	ACTION	
?/HELP	Print Help Information		Decrease Input:xx Gain	
STATUS	Print System Status And Port Status		xx=[0]:All Input Ports xx=[118]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8,13:USB Input Left,14:USB Input Right,15-18:Input Group 1-4	
UPTIME	Print System Uptime			
TEMP	Print System Temperature	IN XX GAIN-yy		
PON	Power On, System Run On Normal State		yy=[110]:Steps	
POFF	Power Off, System Run On Power Save State		yy Can Be Empty(1 Step))	
PWLED FOLLOW ON/ OFF	ON:Set System Power LED Follow LCD Status OFF:Set System Power LED Not Follow LCD Status, In Power On State,Power LED Always On	IN xx MUTE ON/OFF	Set Input:xx Mute On Or Off xx=[0]:All Input Ports xx=[118]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8.13:USB Input Left.14:USB Input	
RESET	Reset System Settings To Default (Should Type "Yes" To Confirm, "No" To Discard)		Right,15-18:Input Group 1-4	
RESET ALL	Reset System And Network Settings To Default (Should Type "Yes" To Confirm, "No" To Discard)		Set Input:xx GEQ:yy To Preset:yy xx=[0]:All Input Ports	
REBOOT	Set System Reboot	IN xx EQ PRESET yy	xx=[118]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8.13:USB Input Left.14:USB Input	
STANDBY xx	Set System Standby Mode To xx xx=0:Sleep,1:Standby		Right,15-18:Input Group 1-4 yy=[13]:1:Flat,2:Custom1,3:Custom2	
KEY ON/OFF	Set System KEY Control On Or Off		Set Input:xx EQ L/R Lock/Unlock xx=[0]:All Inputs xx=[114]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8,13:USB Input Left,14:USB Input Right	
LCD ON/OFF/15/30/60	Set RS232 Baud Rate To xx bps xx=[16]:1:4800,2:9600,3:19200,4:38400,5:57600 ,6:115200	IN xx EQ LOCK ON/OFF		
USB PORT xx	Set USB Port To xx xx=[1,2]:1:USB-B,2:USB-C		Set Input:xx EQ yy On/Off xx=[0]:All Inputs xx=[118]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8,13:USB Input Left,14:USB Input Right,15-18:Input Group 1-4 yy=[08]:EQ Index 0:All Set Input: xx EQ vv To Type ww With FRQ yy GAIN zz Q aa xx=[0]:All Inputs xx=[118]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8,13:USB Input Left,14:USB Input Right,15-18:Input Group 1-4 vv=[08]:EQ Index 0:All ww=[15]:Filter Type:1:Parametric,2:Lowpass,3:Hi ghpass,4:Low Shelf,5:High Shelf yy=[2020000]:Frequency Value[Hz] zz=[-15+15]:Gain Value[dB](Step=0.1)	
IN xx NAME yy	Set Input: xx To Name: yy xx=[118]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8,13:USB Input Left,14:USB Input Right,15-18:Input Group 1-4 yy:Max 24 Characters	IN xx EQ yy ON/OFF		
IN xx CH LOCK ON/OFF	Set Input:xx L/R Channels Lock/Unlock xx=[114]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8,13:USB Input Left,14:USB Input Right Note:Only Adjacent Two Inputs Can Be Locked As One L/R Pair Likes Input 1/2 Or 3/4 Or USB Left/Right	IN xx EQ vv TYPE ww FRQ yy GAIN zz Q aa		
IN xx PHT ON/OFF	Set Input:xx Phantom Power On Or Off xx=[0]:All Analogue Input Ports xx=[14]:Analogue Input CH1-CH4			
IN xx GAIN yy	Set Input:xx Gain To yy xx=[0]:All Input Ports xx=[118]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8,13:USB Input Left,14:USB Input Right,15-18:Input Group 1-4 yy=[-30+30]:Input Gain,Step=1dB	IN xx EQ CLR	Set Input:xx EQ Clear xx=[0]:All Inputs xx=[118]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8,13:USB Input Left,14:USB Input Right,15-18:Input Group 1-4	
IN xx GAIN+yy	Increase Input:xx Gain xx=[0]:All Input Ports xx=[118]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8,13:USB Input Left,14:USB Input Right,15-18:Input Group 1-4 yy=[110]:Steps yy Can Be Empty(1 Step)			

RS-232 Configuration and Telnet Commands (continued)

COMMAND	ACTION	COMMAND	ACTION
Set Input Group:zz Includes yy zz=01:Input Group 1 zz=02:Input Group 2 zz=03:Input Group 3 zz=04:Input Group 4 yy[13]:Analogue CH1 In yy[12]:Analogue CH2 In yy[11]:Analogue CH3 In yy[10]:Analogue CH4 In yy[10]:Analogue CH4 In yy[9]:Dante CH1 In yy[6]:Dante CH2 In yy[6]:Dante CH3 In yy[6]:Dante CH3 In yy[6]:Dante CH3 In yy[6]:Dante CH4 In yy[2]:Dante CH3 In yy[2]:Dante CH3 In yy[6]:Dante CH3 In yy[6]:Dante CH4 In yy[6]:Dante CH3 In yy[6]:Dante CH4 In yy[6]:Dante CH5 In yy[1]:Dante CH6 In yy[2]:Dante CH8 In yy[1]:USB Left In yy[0]:USB Right In [bit]=1:Included [bit]=0:Excluded	Set Input Group:zz Includes yy zz=01:Input Group 1 zz=02:Input Group 2 zz=03:Input Group 3 zz=04:Input Group 4 yy[13]:Analogue CH1 In yy[12]:Analogue CH2 In yy[11]:Analogue CH3 In yy[10]:Analogue CH4 In yy[9]:Dante CH1 In yy[8]:Dante CH2 In yy[7]:Dante CH3 In yy[6]:Dante CH5 In	OUT xx VOL-yy	Decrease Output:xx Volume xx=[0]:All Output Ports xx=[118]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right,15-18:Output Group A-D yy=[110]:Steps yy Can Be Empty(1 Step)
		OUT XX MUTE ON/OFF	Set Output:xx Mute On Or Off xx=[0]:All Output Ports xx=[118]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right,15-18:Output Group A-D
	yy[4]:Dante CH6 In yy[3]:Dante CH7 In yy[2]:Dante CH8 In yy[1]:USB Left In yy[0]:USB Right In [bit]=1:Included [bit]=0:Excluded	OUT xx EQ PRESET yy	Set Output:xx PEQ:yy To Preset:yy xx=[0]:All Output Ports xx=[118]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right,15-18:Output Group A-D yy=[13]:1:Flat,2:Custom1,3:Custom2
OUT xx NAME yy	Set Output:xx To Name:yy xx=[118]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right,15-18:Output Group A-D yy:Max 24 Characters	OUT xx EQ LOCK ON/ OFF	Set Output:xx EQ L/R Lock/Unlock xx=[0]:All Outputs xx=[114]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right
OUT xx CH LOCK ON/ OFF	Set Output:xx L/R Channels Lock/Unlock xx=[114]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right Note:Only Adjacent Two Outputs Can Be Locked As One L/R Pair Likes Output 1/2 Or 3/4 Or USB Left/Right	OUT xx EQ yy ON/OFF	Set Output:xx EQ yy On/Off xx=[0]:All Outputs xx=[118]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right,15-18:Output Group A-D yy=[08]:EQ Index 0:All
OUT xx FR yy	Set Output:xx From Input:yy xx=[0]:All Output Ports xx=[114]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right yy=[114]:1-4:Analogue Input CH1-CH4,5-12:Dante Input CH1-CH8,13:USB Input Left,14:USB Input Right	OUT xx EQ vv TYPE ww FRQ yy GAIN zz Q aa	Set Output: xx EQ vv To Type ww With FRQ yy GAIN zz Q aa xx=[0]:All Outputs xx=[118]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right,15-18:Output Group A-D vv=[08]:EQ Index 0:All ww=[15]:Filter Type:1:Parametric,2:Lowpass,3:Hi ghpass,4:Low Shelf,5:High Shelf yv=[2020000]:Frequency Value[Hz]
	Set Output:xx Volume To yy xx=[0]:All Output Ports		zz=[-15+15]:Gain Value[dB](Step=0.1) aa=[0.0250]:Q Value(Step=0.01)
OUT xx VOL yy	12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right,15-18:Output Group A-D yy=[0100]:Volume Value	OUT xx EQ CLR	Set Output:xx EQ Clear xx=[0]:All Outputs xx=[118]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right,15-18:Output Group A-D
OUT xx VOL+yy	xx=[0]:All Output Ports xx=[118]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right,15-18:Output Group A-D yy=[110]:Steps yy Can Be Empty(1 Step)	OUT xx DLYT yy	Set Output:xx Delay Time To yy(ms) xx=[0]:All Output Ports xx=[114]:1-4:Analogue Output CH1-CH4,5- 12:Dante Output CH1-CH8,13:USB Output Left,14:USB Output Right yy=[150]:Delay Time,Millisecond

RS-232 Configuration and Telnet Commands (continued)

COMMAND	ACTION
OUT GROUP zz MEM- BER yy	Set Output Group:zz Includes yy zz=01:Output Group A zz=02:Output Group B zz=03:Output Group C zz=04:Output Group D yy[13]:Analogue CH1 Out yy[12]:Analogue CH2 Out yy[11]:Analogue CH3 Out yy[10]:Analogue CH4 Out yy[10]:Analogue CH4 Out yy[3]:Dante CH1 Out yy[3]:Dante CH2 Out yy[6]:Dante CH2 Out yy[6]:Dante CH4 Out yy[6]:Dante CH4 Out yy[5]:Dante CH5 Out yy[4]:Dante CH6 Out yy[2]:Dante CH7 Out yy[2]:Dante CH8 Out yy[1]:USB Left Out yy[0]:USB Right Out [bit]=1:Included [bit]=0:Excluded
PRESET xx STATUS	Print Preset Config Status xx=[18]:Select Preset Index
PRESET xx SAVE	Save Current Config To Preset:xx xx=[18]:Select Preset Index
PRESET xx APPLY	Recall Preset:xx Config To The Current Setting xx=[18]:Select Preset Index
PRESET xx DELETE	Delete Preset:xx From The System xx=[18]:Select Preset Index
PRESET xx NAME yy	Set Preset:xx To Name:yy xx=[18]:Select Preset Index yy:Max 24 Characters
NET DHCP ON/OFF	Set Auto IP(DHCP) On Or Off
NET IP xxx.xxx.xxx.xxx	Set IP Address
NET GW xxx.xxx.xxx. xxx	Set Gateway Address
NET SM xxx.xxx.xxx. xxx	Set Subnet Mask Address
NET TCPPORT ON/OFF	Set TCP/IP On Or Off
NET TCPPORT xxxx	Set TCP/IP Port
NET TN ON/OFF	Set Telnet On Or Off
NET TN xxxx	Set Telnet Port
NET RB	Network Reboot And Apply New Config!!!
NET DNS xxxx	Set DNS Domain Name To xxxx

Certifications

FCC Notice

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.

CAUTION - changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CANADA, INDUSTRY CANADA (IC) NOTICES

This Class B digital apparatus complies with Canadian ICES-003.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

CANADA, AVIS D'INDUSTRY CANADA (IC)

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003.

Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

CORRECT DISPOSAL OF THIS PRODUCT

This marking indicates that this product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.





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