MPA1 Audio Monitoring Range Installation and Operation Manual Version 1.2

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Version History

Issue	Date	Change Details
1	01/02/18	Preliminary Guide
2	05/10/18	Version 1.0
3	25/1/19	Version 1.1 – Added MPA1 SOLO 8 and MPA1 MIX 8
4	1/10/19	Version 1.2 – Added Analogue, AES and GPIO Pinout Information

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Introduction

The MPA1 Range of Audio Monitors provide high-quality confidence monitoring in a compact 1RU design. At just 100mm deep and less than 4kg, MPA1 Audio Monitors are ideally suited for environments where space and weight is a premium, such as OB Trucks and Flyaways.

Designed for ease of use, all MPA1 Audio Monitors can be controlled directly from the front panel, or remotely over an Ethernet network using a suitable Web-Browser or control system using SNMP.

This manual covers the following Audio Monitoring Products within the MPA1 Range:

MPA1-SOLO-SDI	MPA1-MIX-SDI
MPA1-SOLO-MADI	MPA1-MIX-MADI
MPA1-SOLO-DANTE	MPA1-MIX-DANTE
MPA1-SOLO-8	MPA1-MIX-8

The MPA1-SOLO variants provide instantaneous selection and monitoring of any incoming audio source, whilst the MPA1-MIX variants also allow for multiple monitor mixes, comprising up to 8 audio pairs, to be created, stored and recalled with ease.

Front Panel for MPA1-SOLO Variants

Front Panel Layout for MPA1-MIX-Variants

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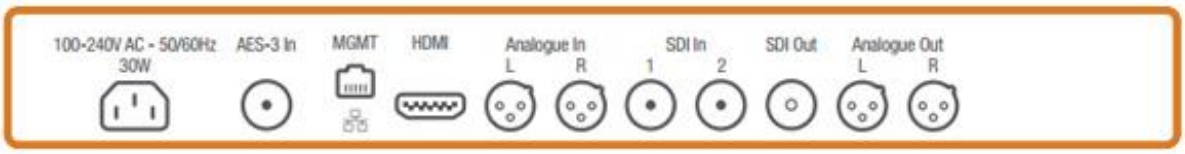
MPA1-SOLO-SDI Installation

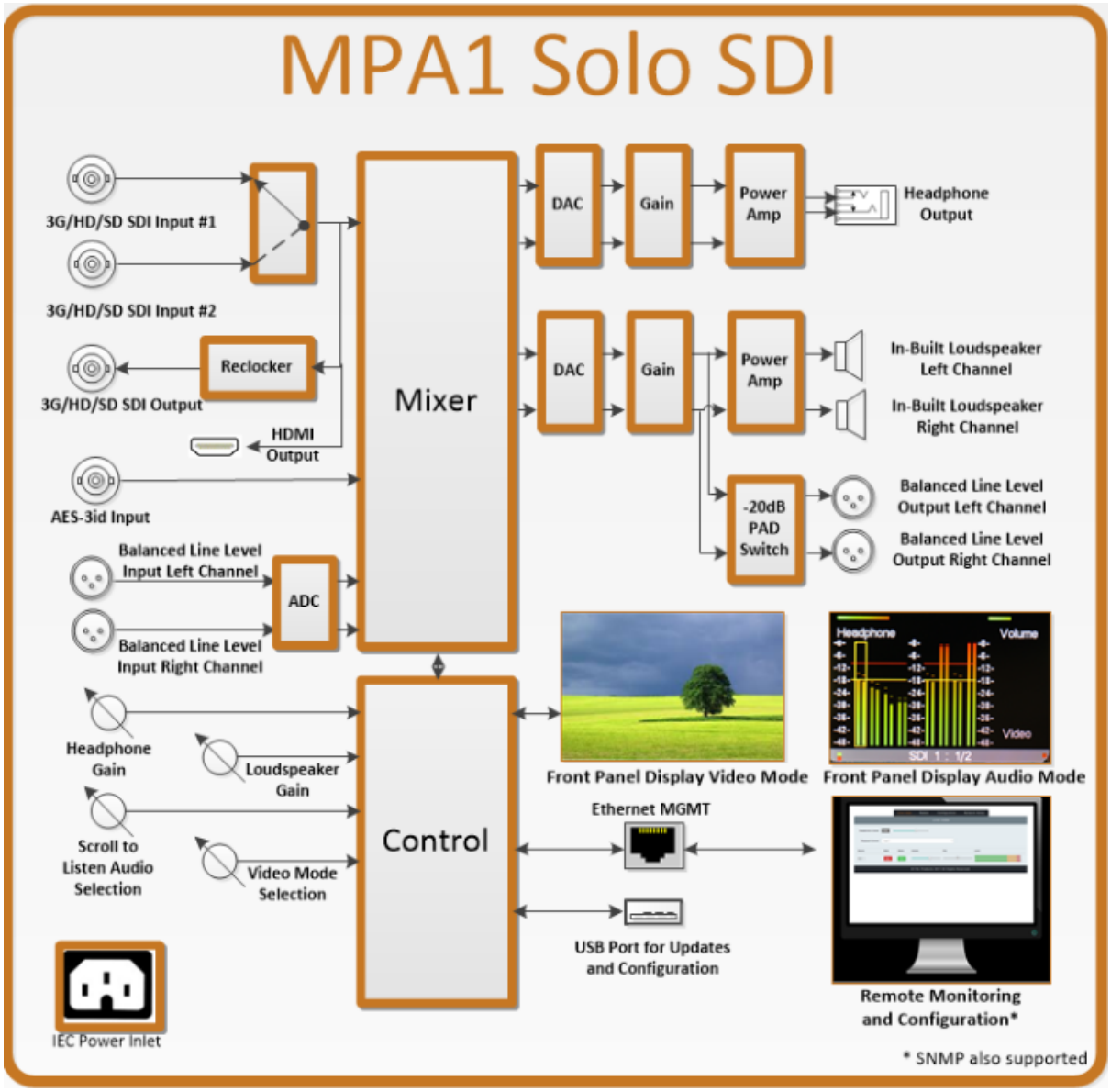
The MPA1 Audio Monitoring Range has been designed to be quick and easy to install, requiring minimal installation effort. Input and output connectivity for each MPA1 Model can be seen below:

MPA1-SOLO-SDI



Product	Inputs	Outputs	Other
MPA1-SOLO-SDI	2 x 3G/HD/SD-SDI 1 x AES3 (75 ohm) 2 x Analogue Inputs (Balanced)	1 x 3G/HD/SD-SDI (reclocked) 2 x Analogue Outputs (Balanced) 1 x Headphone Output 1 x HDMI Monitoring Output	1 x 1Gig/E Ethernet Port (Management and Control) 1 x USB Port (Software Updates and Configuration) 1 x IEC Power Inlet

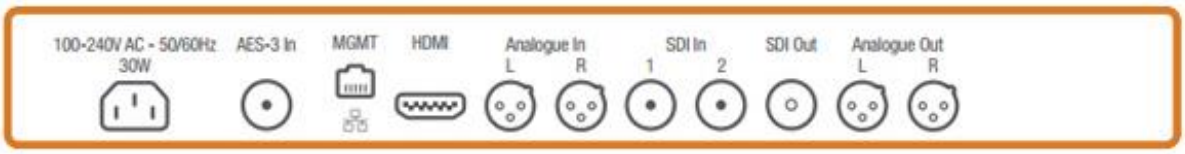
MPA1-SOLO-SDI Functional Schematic



MPA1-MIX-SDI Installation

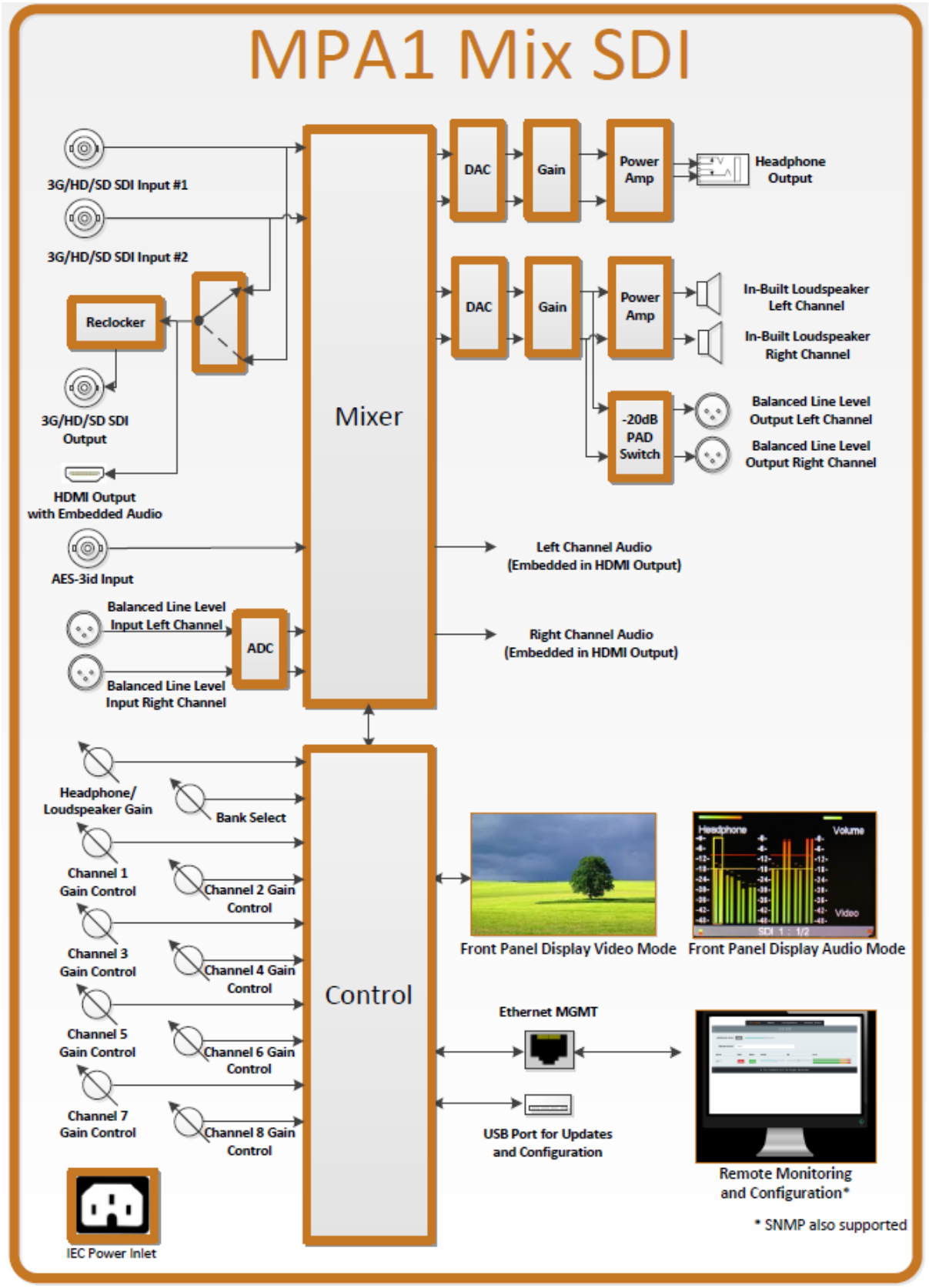
The MPA1 Audio Monitoring Range has been designed to be quick and easy to install, requiring minimal installation effort. Input and output connectivity for each MPA1 Model can be seen below:

MPA1-MIX-SDI



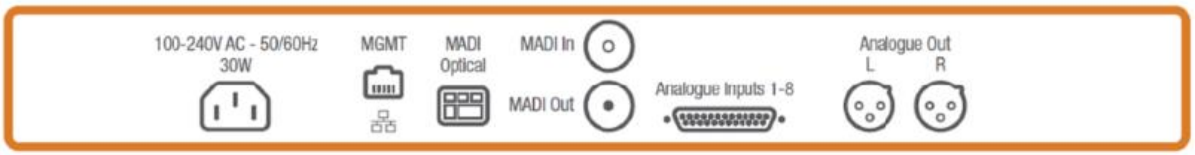
Product	Inputs	Outputs	Other
MPA1-MIX-SDI	2 x 3G/HD/SD-SDI 1 x AES3 (75 ohm) 2 x Analogue Inputs (Balanced)	1 x 3G/HD/SD-SDI (reclocked) 2 x Analogue Outputs (Balanced) 1 x Headphone Output 1 x HDMI Monitoring Output	1 x 1Gig/E Ethernet Port (Management and Control) 1 x USB Port (Software Updates and Configuration) 1 x IEC Power Inlet

MPA1-MIX-SDI Functional Schematic



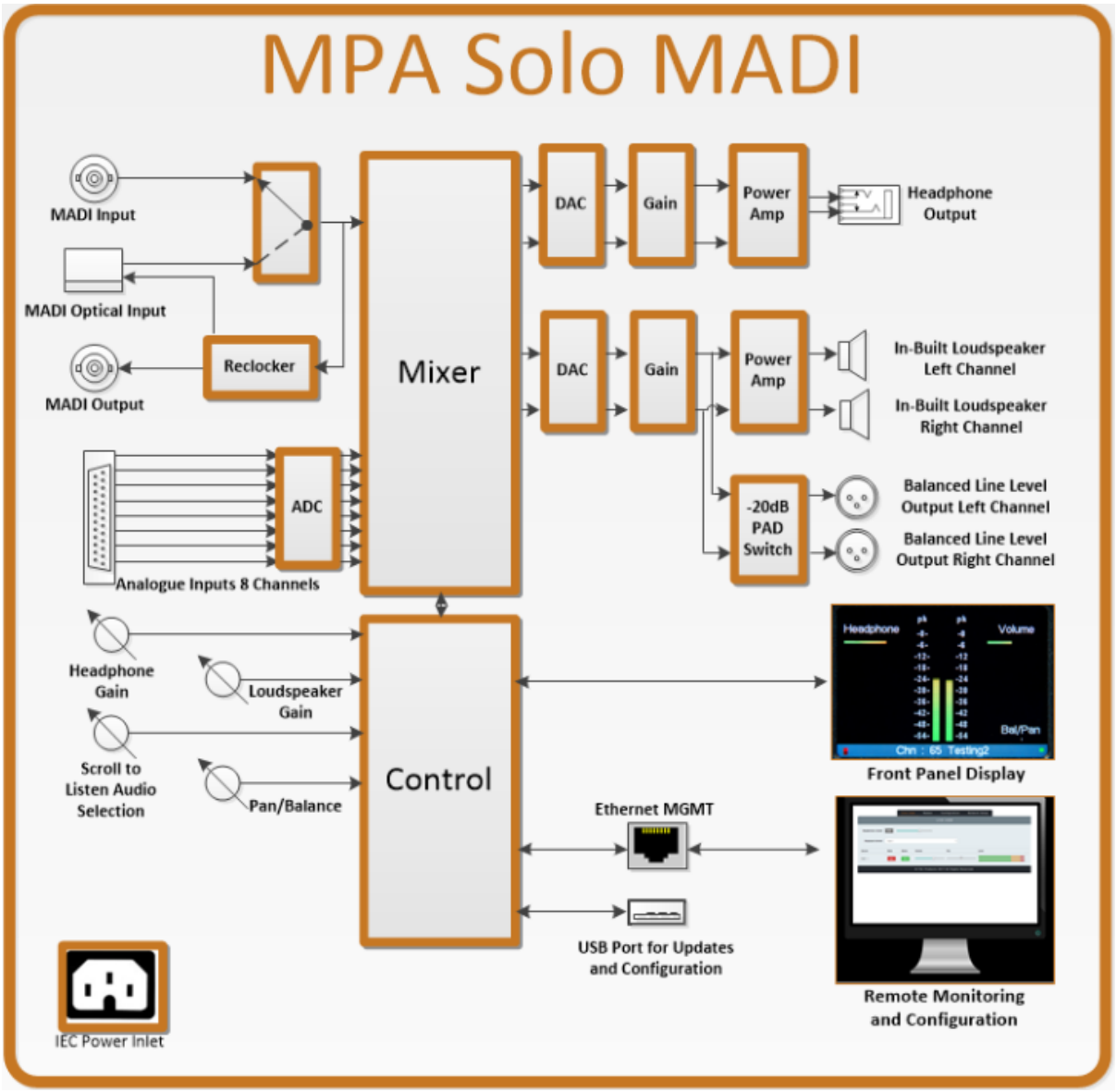
MPA1-SOLO-MADI Installation

MPA1-SOLO-MADI



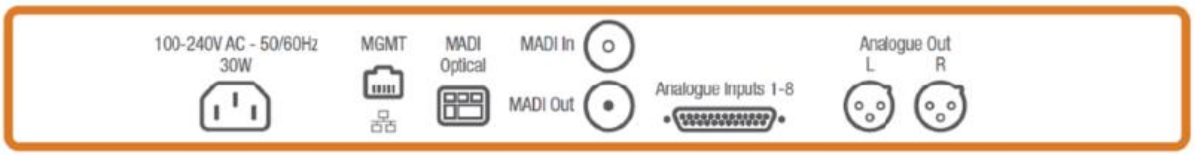
Product	Inputs	Outputs	Other
MPA1-SOLO-MADI	1 x MADI (75 ohm) 1 x MADI (SFP cage for optional SFP module) 8 x Analogue Inputs (Balanced)	1 x MADI (75 ohm) reclocked 2 x Analogue Outputs (Balanced) 1 x Headphone Output	1 x 1Gig/E Ethernet Port (Management and Control) 1 x USB Port (Software Updates and Configuration) 1 x IEC Power Inlet

MPA1-SOLO-MADI Functional Schematic



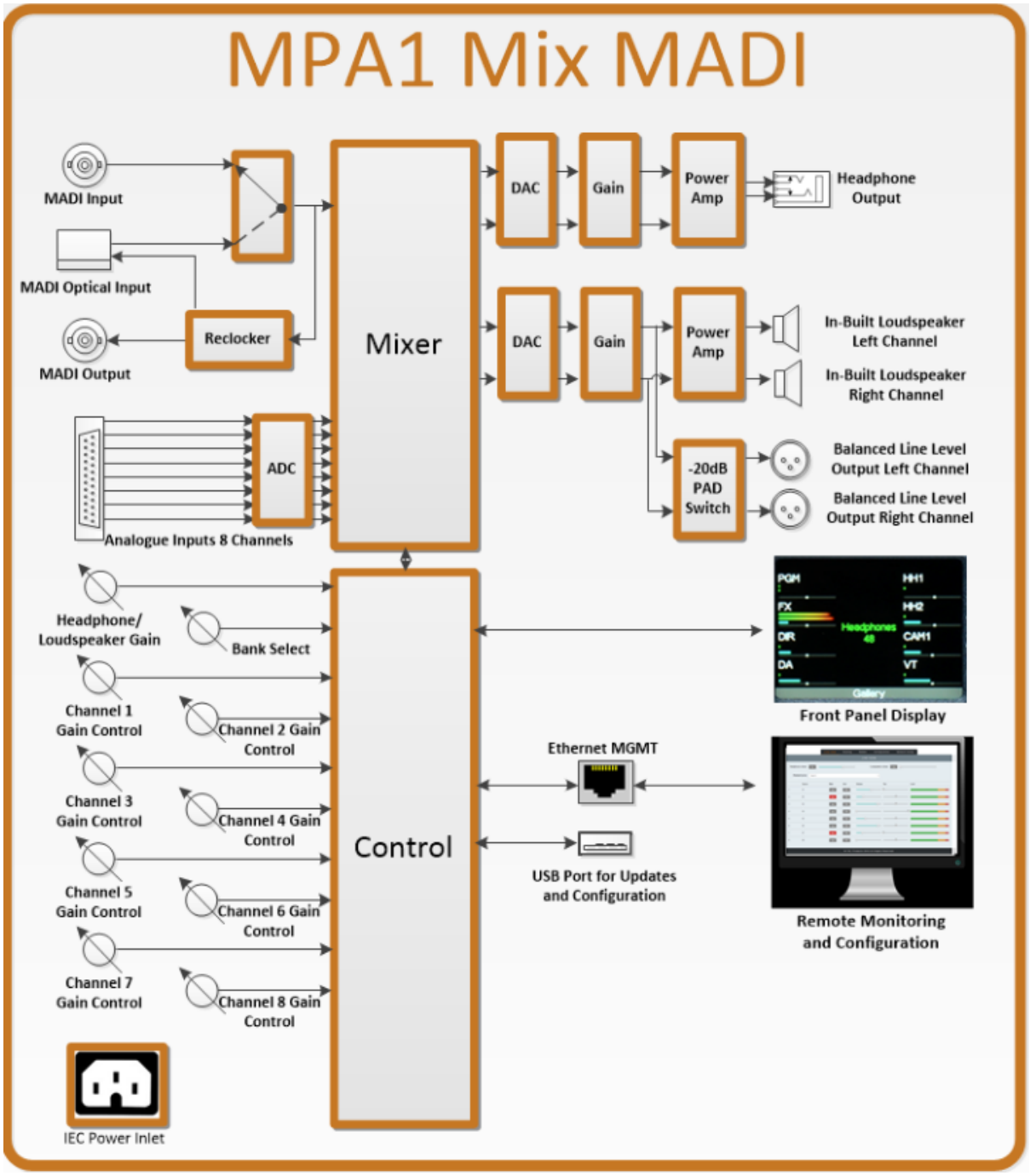
MPA1-MIX-MADI Installation

MPA1-MIX-MADI



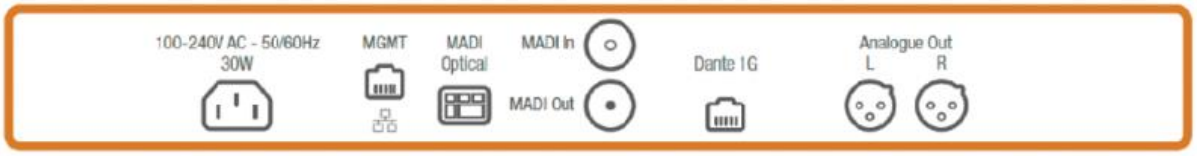
Product	Inputs	Outputs	Other
MPA1-MIX-MADI	1 x MADI (75 ohm) 1 x MADI (SFP cage for optional SFP module) 8 x Analogue Inputs (Balanced)	1 x MADI (75 ohm) reclocked 2 x Analogue Outputs (Balanced) 1 x Headphone Output	1 x 1Gig/E Ethernet Port (Management and Control) 1 x USB Port (Software Updates and Configuration) 1 x IEC Power Inlet

MPA1-MIX-MADI Functional Schematic



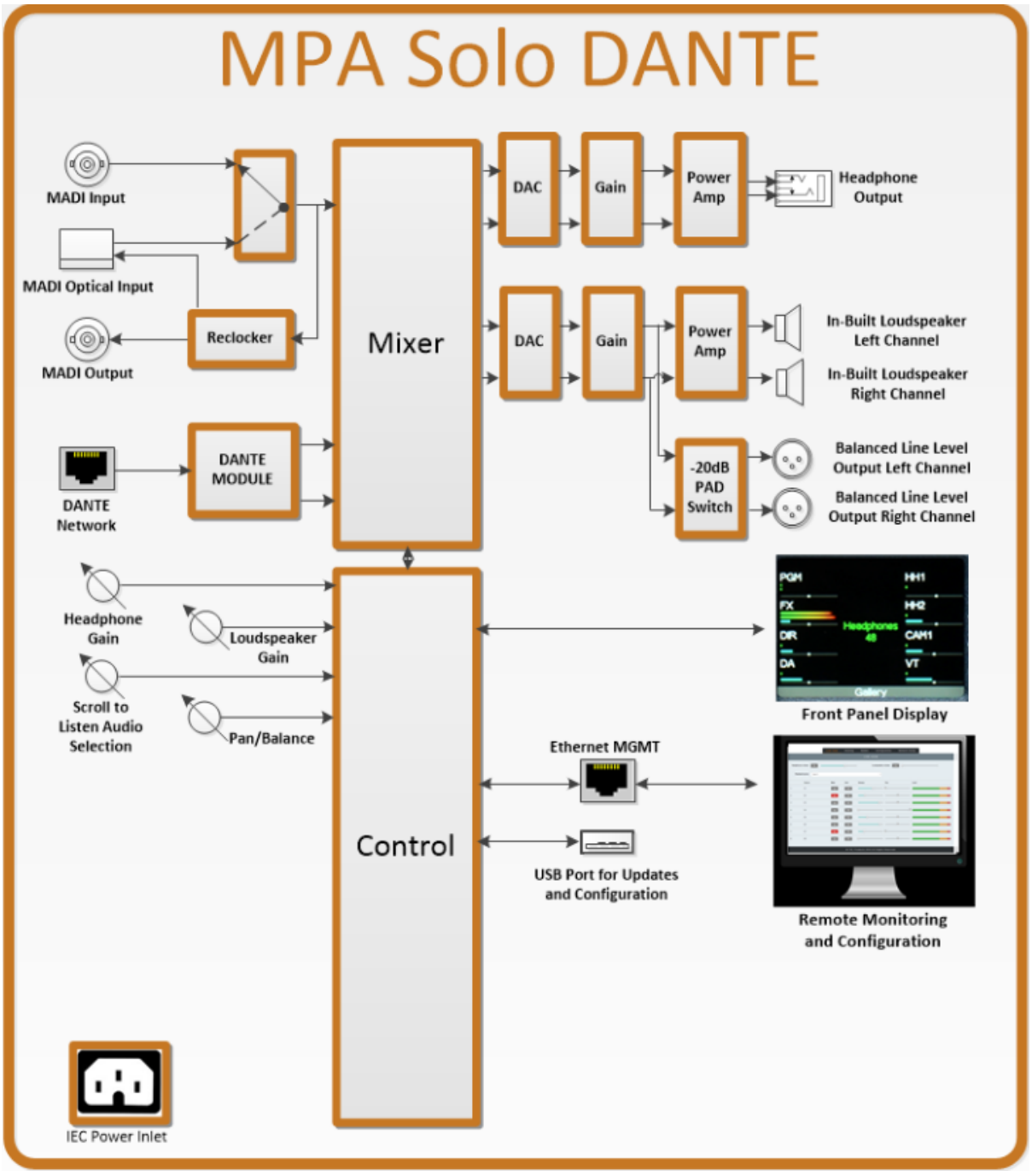
MPA1-SOLO-DANTE Installation

MPA1-SOLO-DANTE



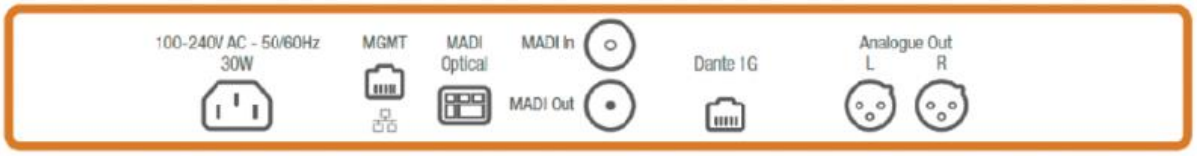
Product	Inputs	Outputs	Other
MPA1-SOLO-DANTE	1 x 1Gig/E Ethernet Port (Dante/AES67) 1 x MADI (75 ohm) 1 x MADI (SFP cage for optional SFP module) 8 x Analogue Inputs (Balanced)	1 x MADI (75 ohm) reclocked 2 x Analogue Outputs (Balanced) 1 x Headphone Output	1 x 1Gig/E Ethernet Port (Management and Control) 1 x USB Port (Software Updates and Configuration) 1 x IEC Power Inlet

MPA1-SOLO-DANTE Functional Schematic



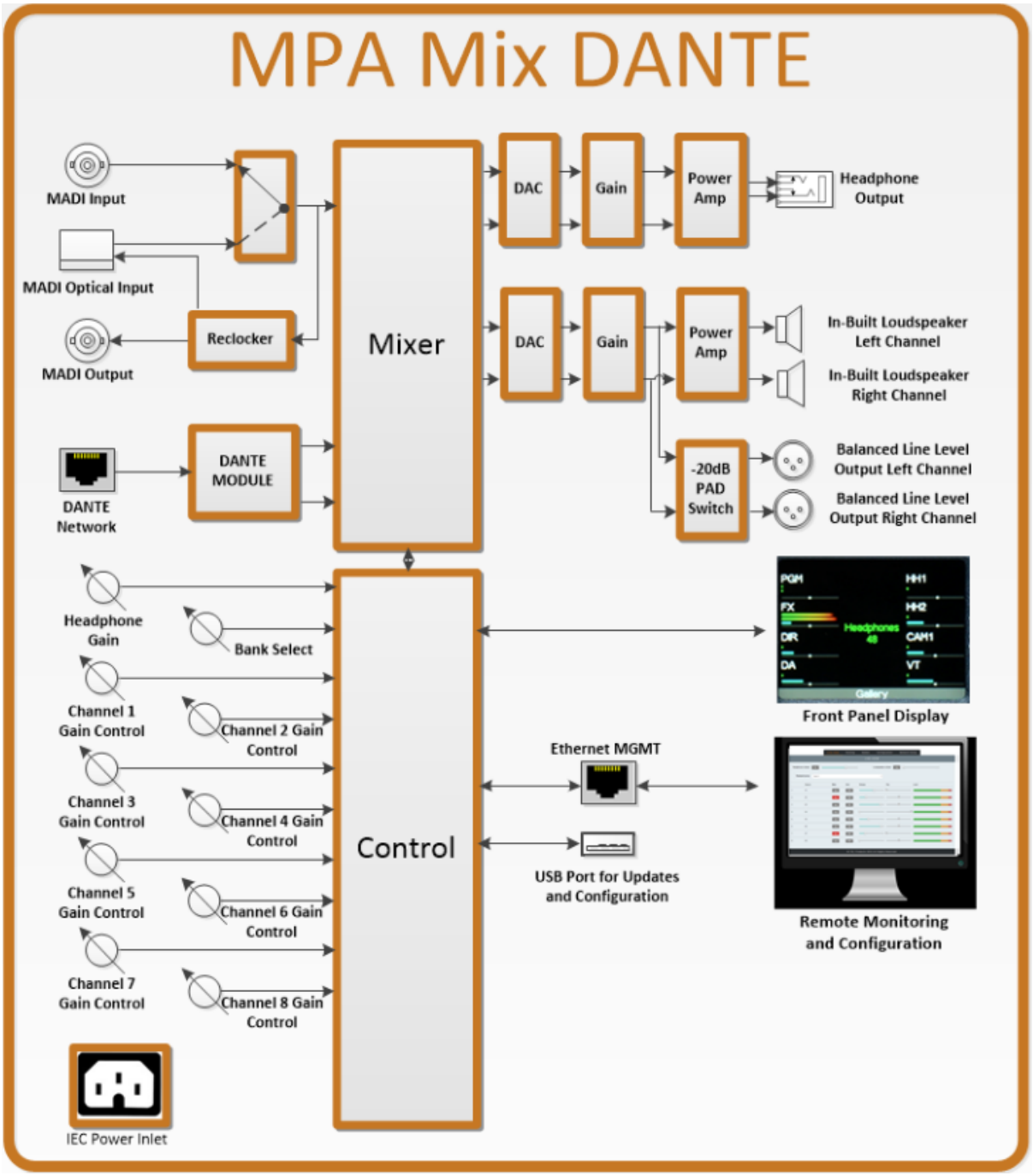
MPA1-MIX-DANTE Installation

MPA1-MIX-DANTE



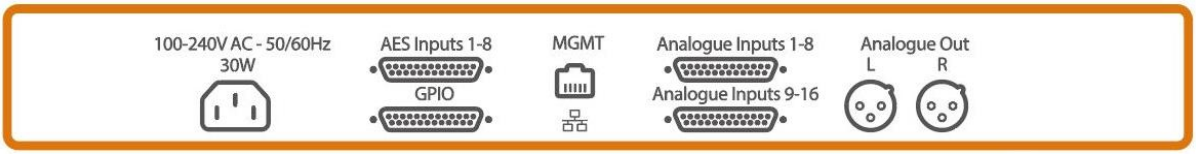
Product	Inputs	Outputs	Other
MPA1-MIX-DANTE	1 x 1Gig/E Ethernet Port (Dante/AES67) 1 x MADI (75 ohm) 1 x MADI (SFP cage for optional SFP module) 8 x Analogue Inputs (Balanced)	1 x MADI (75 ohm) reclocked 2 x Analogue Outputs (Balanced) 1 x Headphone Output	1 x 1Gig/E Ethernet Port (Management and Control) 1 x USB Port (Software Updates and Configuration) 1 x IEC Power Inlet

MPA1-MIX-DANTE Functional Schematic



MPA1-SOLO-8 Installation

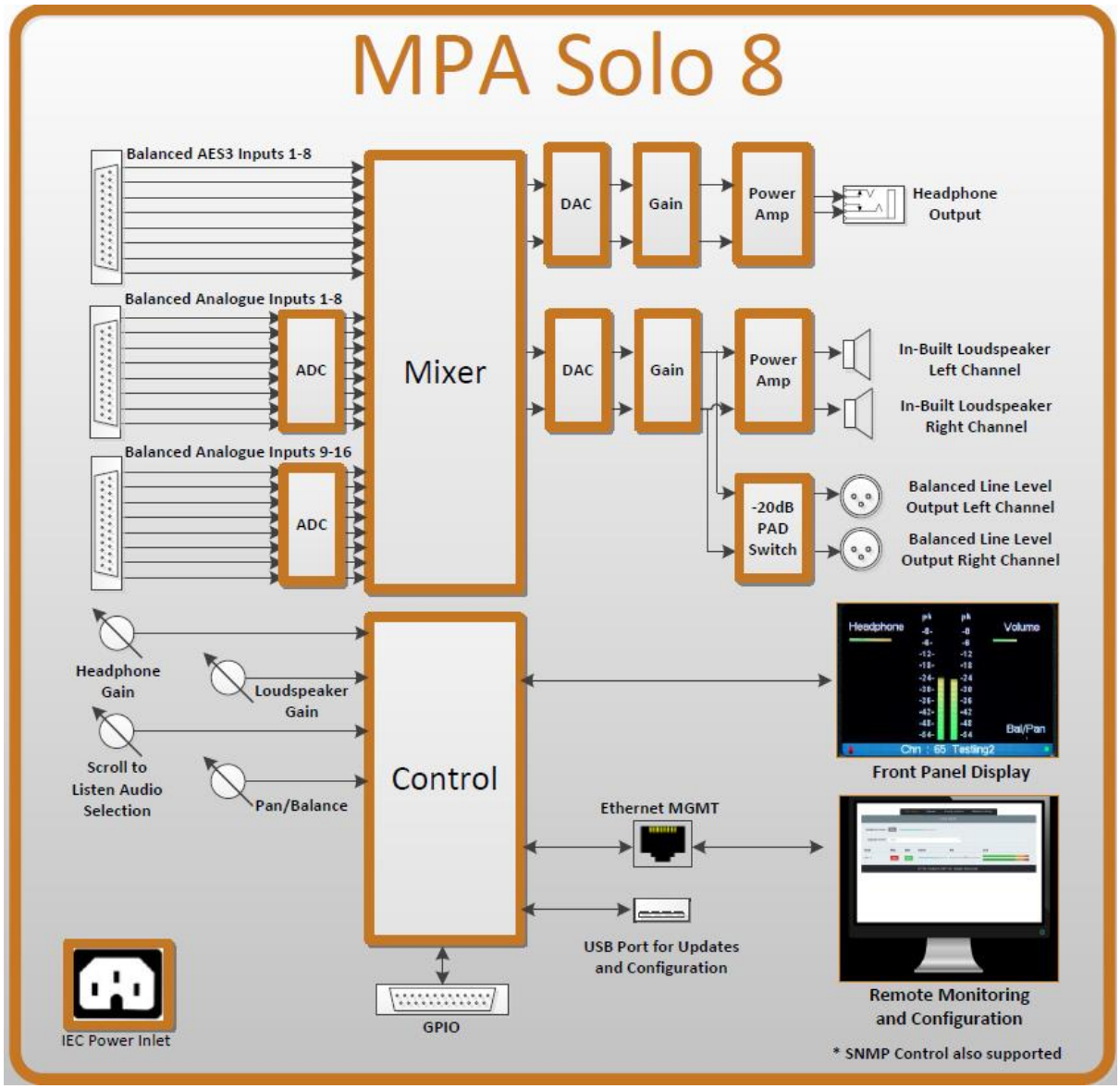
MPA1-SOLO-8



Product	Inputs	Outputs	Other
MPA1-SOLO-8	16 x Analogue Inputs (Balanced) 8 x AES-3 Inputs (Balanced 110 ohm) 4 x GPI	2 x Analogue Outputs (Balanced) 1 x Headphone Output 4 x GPO	1 x 1Gig/E Ethernet Port (Management and Control) 1 x USB Port (Software Updates and Configuration) 1 x IEC Power Inlet

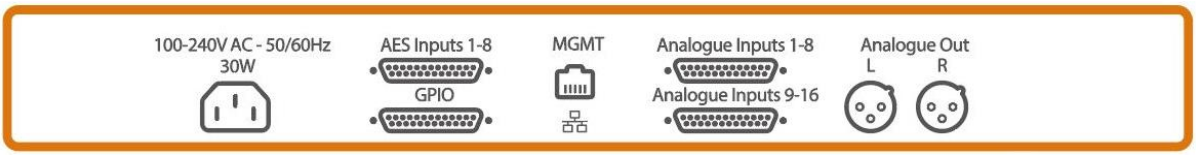
Pin Number	Analogue Inputs 1-8	Analogue Inputs 9-16	AES Inputs 1-8	GPIO
1	Channel 8 Positive	Channel 16 Positive	Channel 8 Positive	GPO1
2	Channel 8 Ground	Channel 16 Ground	Channel 8 Ground	Ground
3	Channel 7 Negative	Channel 15 Negative	Channel 7 Negative	GPO2
4	Channel 6 Positive	Channel 14 Positive	Channel 6 Positive	Ground
5	Channel 6 Ground	Channel 14 Ground	Channel 6 Ground	GPO3
6	Channel 5 Negative	Channel 13 Negative	Channel 5 Negative	Ground
7	Channel 4 Positive	Channel 12 Positive	Channel 4 Positive	GPO4
8	Channel 4 Ground	Channel 12 Ground	Channel 4 Ground	Ground
9	Channel 3 Negative	Channel 11 Negative	Channel 3 Negative	Ground
10	Channel 2 Positive	Channel 10 Positive	Channel 2 Positive	Ground
11	Channel 2 Ground	Channel 10 Ground	Channel 2 Ground	Ground
12	Channel 1 Negative	Channel 9 Negative	Channel 1 Negative	Ground
13	Empty	Empty	Empty	Ground
14	Channel 8 Negative	Channel 16 Negative	Channel 8 Negative	Ground
15	Channel 7 Positive	Channel 15 Positive	Channel 7 Positive	Ground
16	Channel 7 Ground	Channel 15 Ground	Channel 7 Ground	Ground
17	Channel 6 Negative	Channel 14 Negative	Channel 6 Negative	Ground
18	Channel 5 Positive	Channel 13 Positive	Channel 5 Positive	Ground
19	Channel 5 Ground	Channel 13 Ground	Channel 5 Ground	GPI1
20	Channel 4 Negative	Channel 12 Negative	Channel 4 Negative	Ground
21	Channel 3 Positive	Channel 11 Positive	Channel 3 Positive	GPI2
22	Channel 3 Ground	Channel 11 Ground	Channel 3 Ground	Ground
23	Channel 2 Negative	Channel 10 Negative	Channel 2 Negative	GPI3
24	Channel 1 Positive	Channel 9 Positive	Channel 1 Positive	Ground
25	Channel 1 Ground	Channel 9 Ground	Channel 1 Ground	GPI4

MPA1-SOLO-8 Functional Schematic



MPA1-MIX-8 Installation

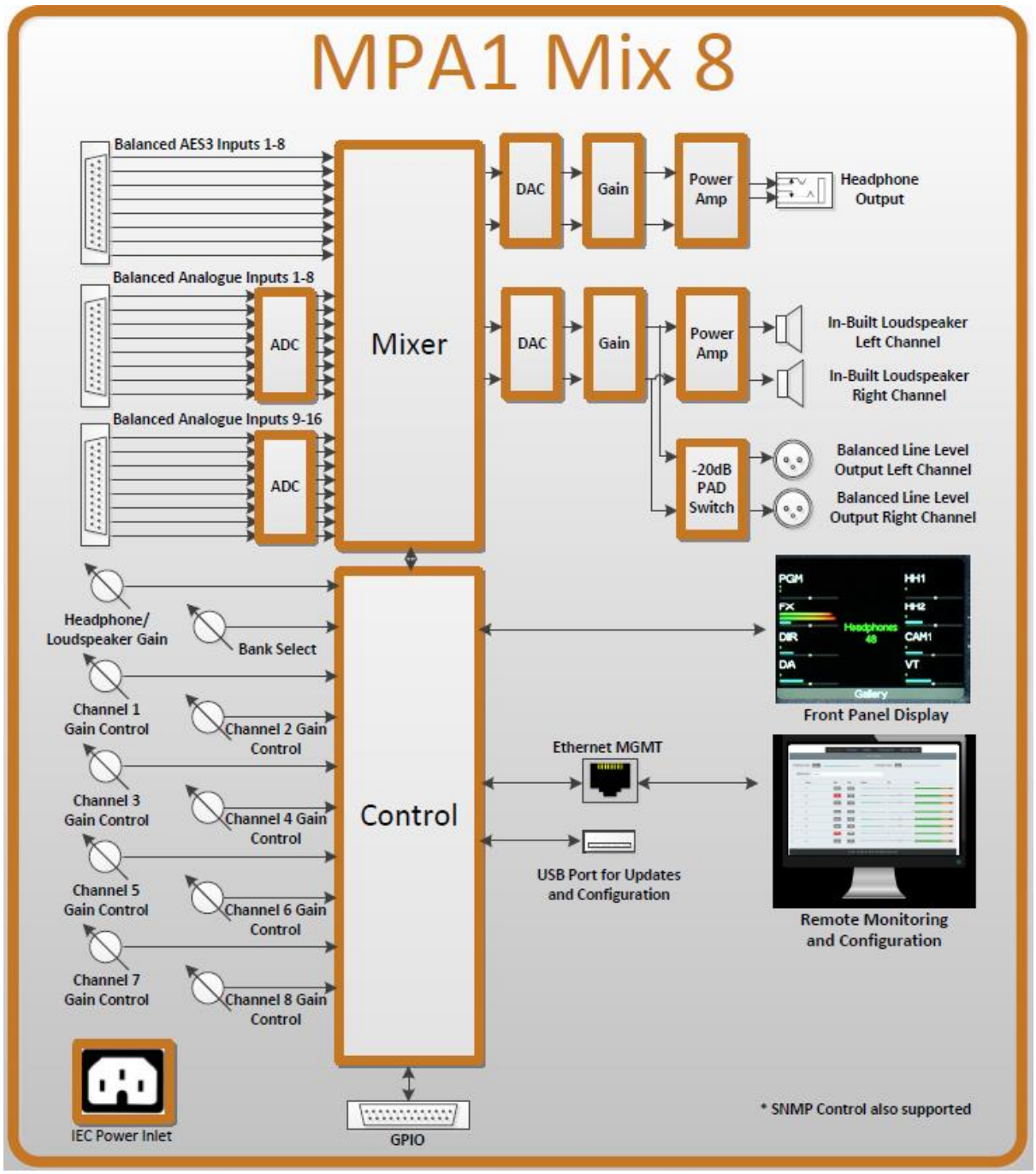
MPA1-MIX-8



Product	Inputs	Outputs	Other
MPA1-MIX-8	16 x Analogue Inputs (Balanced) 8 x AES-3 Inputs (Balanced 110 ohm) 4 x GPI	2 x Analogue Outputs (Balanced) 1 x Headphone Output 4 x GPO	1 x 1Gig/E Ethernet Port (Management and Control) 1 x USB Port (Software Updates and Configuration) 1 x IEC Power Inlet

Pin Number	Analogue Inputs 1-8	Analogue Inputs 9-16	AES Inputs 1-8	GPIO
1	Channel 8 Positive	Channel 16 Positive	Channel 8 Positive	GPO1
2	Channel 8 Ground	Channel 16 Ground	Channel 8 Ground	Ground
3	Channel 7 Negative	Channel 15 Negative	Channel 7 Negative	GPO2
4	Channel 6 Positive	Channel 14 Positive	Channel 6 Positive	Ground
5	Channel 6 Ground	Channel 14 Ground	Channel 6 Ground	GPO3
6	Channel 5 Negative	Channel 13 Negative	Channel 5 Negative	Ground
7	Channel 4 Positive	Channel 12 Positive	Channel 4 Positive	GPO4
8	Channel 4 Ground	Channel 12 Ground	Channel 4 Ground	Ground
9	Channel 3 Negative	Channel 11 Negative	Channel 3 Negative	Ground
10	Channel 2 Positive	Channel 10 Positive	Channel 2 Positive	Ground
11	Channel 2 Ground	Channel 10 Ground	Channel 2 Ground	Ground
12	Channel 1 Negative	Channel 9 Negative	Channel 1 Negative	Ground
13	Empty	Empty	Empty	Ground
14	Channel 8 Negative	Channel 16 Negative	Channel 8 Negative	Ground
15	Channel 7 Positive	Channel 15 Positive	Channel 7 Positive	Ground
16	Channel 7 Ground	Channel 15 Ground	Channel 7 Ground	Ground
17	Channel 6 Negative	Channel 14 Negative	Channel 6 Negative	Ground
18	Channel 5 Positive	Channel 13 Positive	Channel 5 Positive	Ground
19	Channel 5 Ground	Channel 13 Ground	Channel 5 Ground	GPI1
20	Channel 4 Negative	Channel 12 Negative	Channel 4 Negative	Ground
21	Channel 3 Positive	Channel 11 Positive	Channel 3 Positive	GPI2
22	Channel 3 Ground	Channel 11 Ground	Channel 3 Ground	Ground
23	Channel 2 Negative	Channel 10 Negative	Channel 2 Negative	GPI3
24	Channel 1 Positive	Channel 9 Positive	Channel 1 Positive	Ground
25	Channel 1 Ground	Channel 9 Ground	Channel 1 Ground	GPI4

MPA1-MIX-8 Functional Schematic



Initial Setup

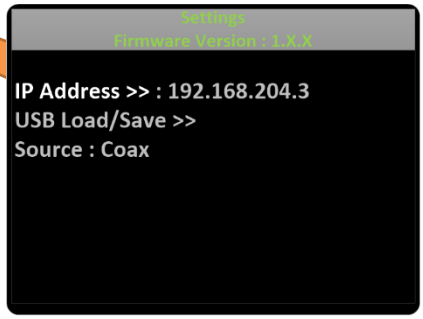
In order to realise the full benefits of your MPA1 Audio Monitor, TSL Products recommends connecting your MPA1 Audio Monitor to an Ethernet network during initial set-up and configuration.

Full configuration of your MPA1 Audio Monitor can be achieved by way of a suitable Client PC and Web-browser.

Setting the Control IP Address of your MPA1 Audio Monitor

All MPA1 Audio Monitors are shipped with a DHCP setting default to 'DHCP 'On'.

To determine the current IP address of your MPA1, push and hold the SELECT/MENU encoder for 3 seconds to access the **Settings** Menu.



The **Settings** Menu will now appear on the front panel display of your MPA1, with the current IP Address shown.

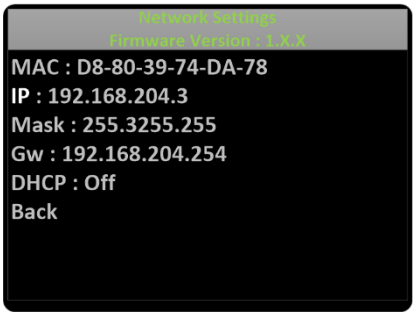
Using the SELECT/MENU encoder, you can scroll through the Settings Menu to highlight a Settings Sub-Menu of your choice.

The availability of Sub-Menus is depicted by the presence of the following symbol: **>>**

With the IP Address Sub-Menu highlighted as shown, briefly push the SELECT/MENU encoder to access the **Network Settings** Menu (see below).

The SELECT/MENU encoder will now allow you to scroll through, select and modify the Network Settings of your MPA1 in accordance with the guidelines set by your Network Administrator.

Once complete, select BACK to return to the **Settings** Menu. You can exit the **Settings** Menu by pushing and holding the SELECT/MENU encoder for 3 seconds once more.



Accessing the Webpage of your MPA1

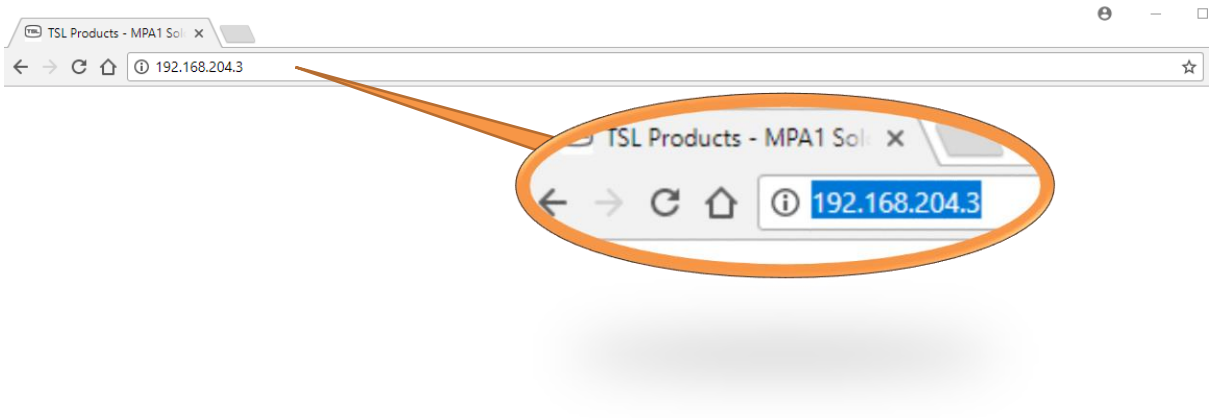
Configuring your MPA1 Audio Monitor using a Client PC and Web-Browser

With your MPA1 connected to an Ethernet network, you can remotely control and configure your MPA1 using a Client PC and Web-Browser.

The MPA1 Webpage allows you to optimise your MPA1 for your environment and the workflow you need to support.

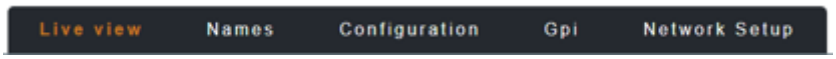
Settings such as the brightness of the front panel display, which sources may be selected from the front panel of the unit and the behaviour of the MPA1 when used with Headphones can all be set using the MPA1 Webpage.

Enter the IP Address of your MPA1 into a Web-Browser

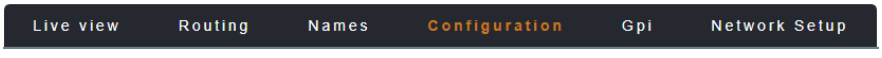


The MPA1 Webpage comprises multiple Tabs, providing quick navigation to specific sections of the MPA1 configuration, providing quick and easy setup.

Separate Tabs for LIVE VIEW, NAMES, CONFIGURATION and NETWORK SETUP are present on the Webpage belonging to all MPA1-SOLO variants, whilst an extra ROUTING Tab can be found on all MPA1-MIX variants.



MPA1-SOLO- SDI, MPA1-SOLO-MADI, MPA1-SOLO-DANTE and MPA1-SOLO-8

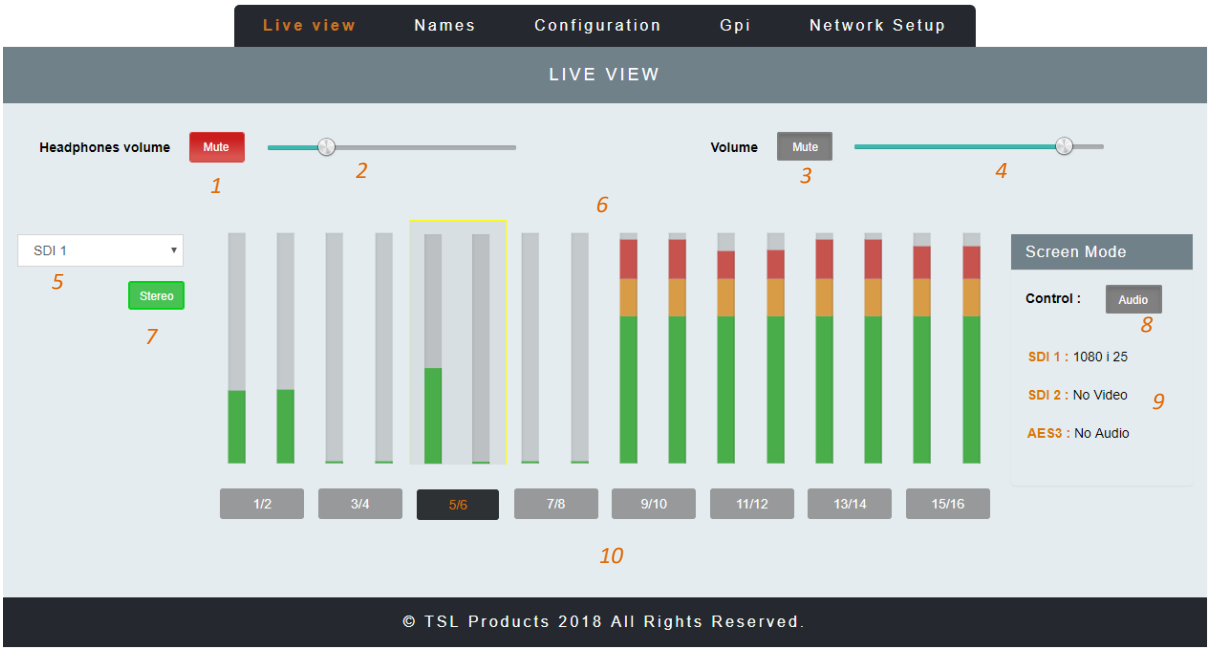


MPA1-MIX- SDI, MPA1-MIX-MADI, MPA1-MIX-DANTE and MPA1-MIX-8

The following pages detail the contents and settings available for all MPA1 Audio Monitors

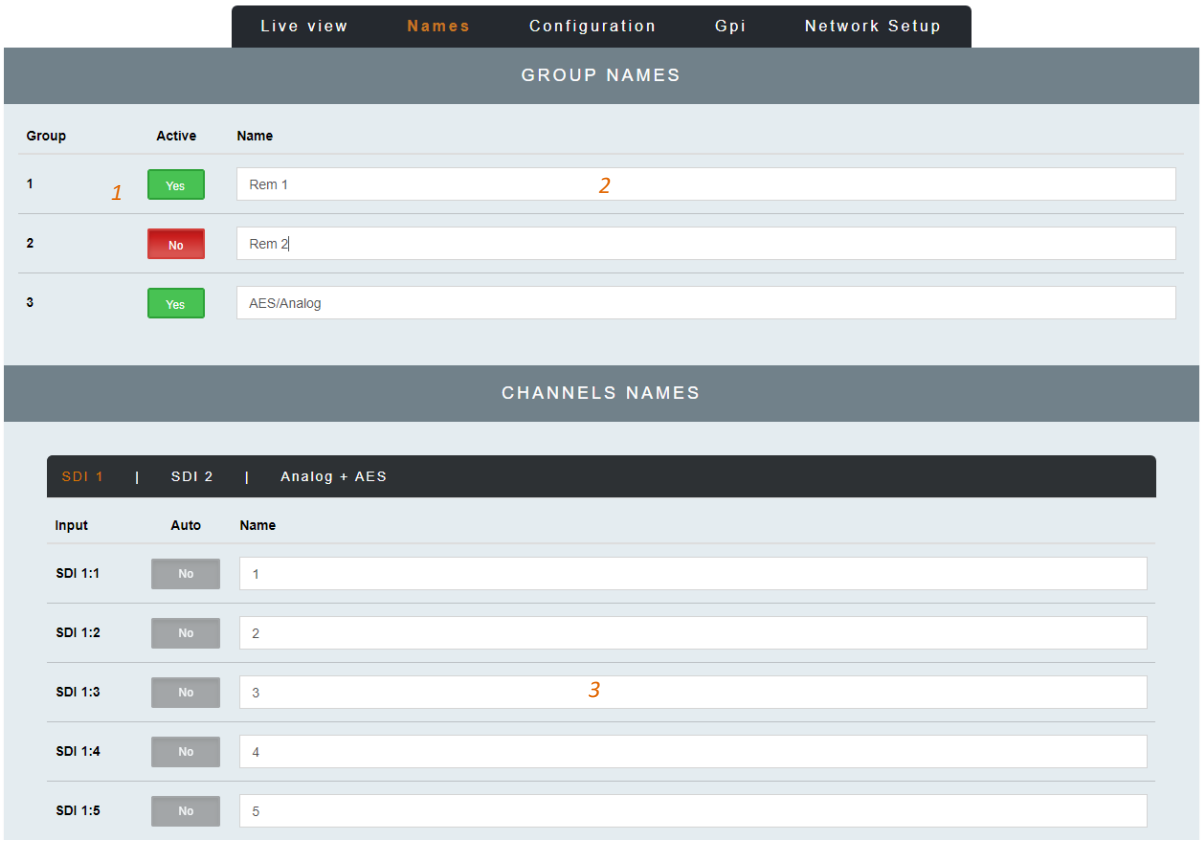
MPA1-SOLO-SDI Webpage

Clicking on the LIVE VIEW Tab of the MPA1-SOLO-SDI Webpage displays the following:



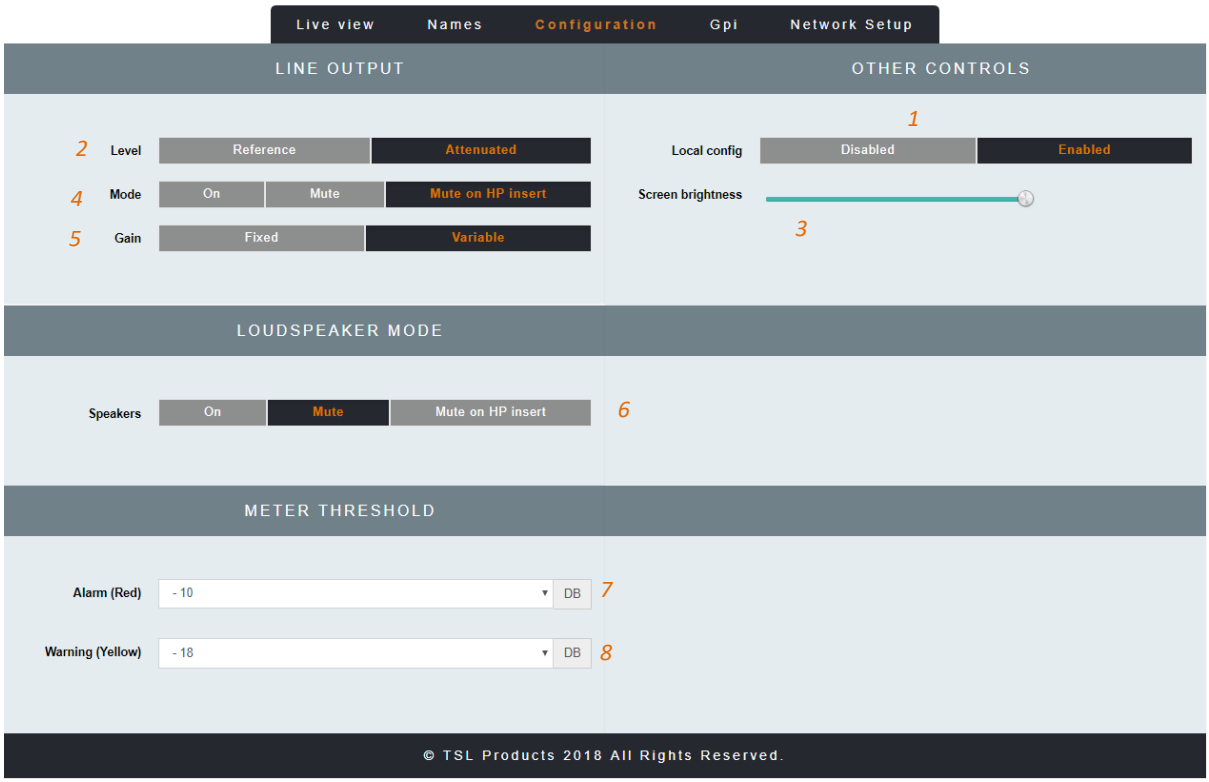
Element	Function	Notes
1	Switch to Mute Headphone Output	Red when Muted, Grey when Active
2	Headphone Output Level adjustment	Adjust as required
3	Switch to Mute the Loudspeaker Output	Red when Muted, Grey when Active
4	Loudspeaker Output Level adjustment	Adjust as required
5	Input Selection	Switches between SDI 1, SDI 2 and AES + Analogue Input Monitoring
6	Audio Level Meter Display	Displays Audio Levels in accordance with Input Selection
7	Stereo/Mono Switch	Switches Audio Monitoring Selectors between Single Audio Channel and Audio Pair mode.
8	Screen Mode Switch	Switches front panel display between Audio Metering and SDI Video Source.
9	Signal Format Display	Format display of SDI 1, SDI 2 and AES3 Inputs
10	Audio Monitor Selectors	Selects the Single Audio Channel or Audio Pair routed to the Headphone and Loudspeaker Outputs.

Clicking on the NAMES Tab of the MPA1-SOLO-SDI Webpage displays the following:



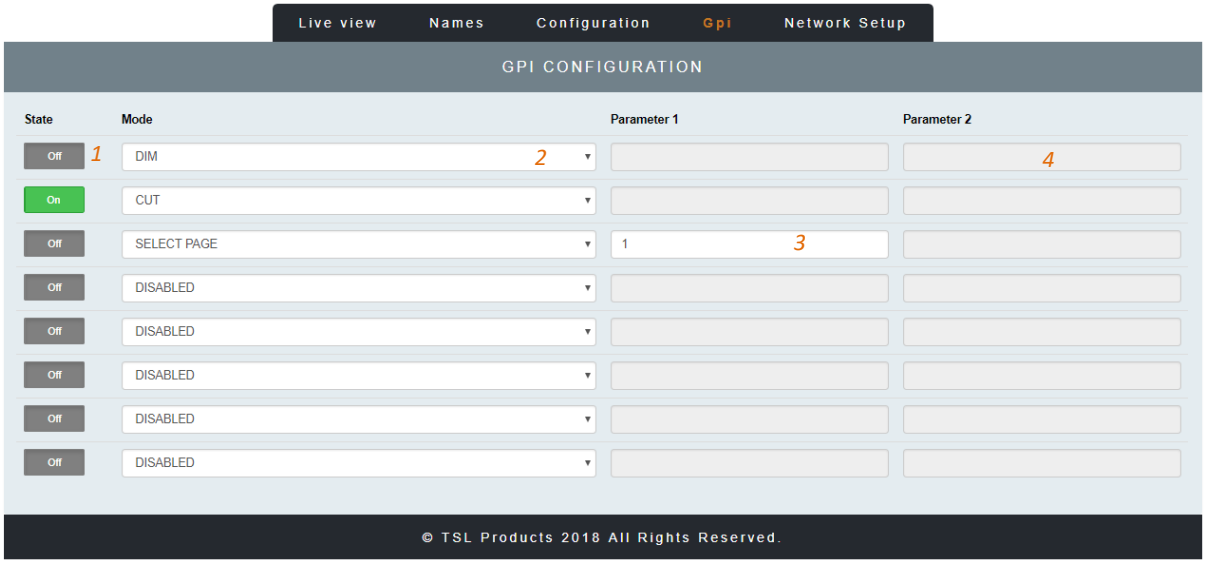
Element	Function	Notes
1	Input Active Buttons	Allows unused inputs to be hidden from the Operator
2	Input Names	Allows friendly names to be applied to SDI 1, SDI 2 and AES/Analog Input Groups
3	Channel Names	Allows friendly names to be applied to all 16 Embedded Audio Channels belonging to SDI 1 and SDI 2 Inputs and AES and Analogue Channels.

Clicking on the CONFIGURATION Tab of the MPA1-SOLO-SDI Webpage displays the following:



Element	Function	Notes
1	Local Config	Enables/Disables configuration from the front panel of the MPA1-SOLO-SDI
2	Line Output Level	Sets the Output Level of the Balanced Line Level Outputs on the MPA1-SOLO-SDI
3	Screen Brightness	Sets the Brightness Level of the front panel display
4	Line Output Mode	Determines behaviour of Balanced Line Level Outputs upon insertion of Headphones.
5	Fixed or Variable Line Output	Determines if Balanced Line Level Outputs provide a Fixed or Variable Output
6	Loudspeaker Mode	Determines behaviour of Internal Loudspeakers upon insertion of Headphones.
7	Meter Threshold RED	Sets audio threshold at which audio level meters begin to display RED
8	Meter Threshold YELLOW	Sets audio threshold at which audio level meters begin to display YELLOW

Clicking on the GPI Tab of the MPA1-SOLO-SDI Webpage displays the following:

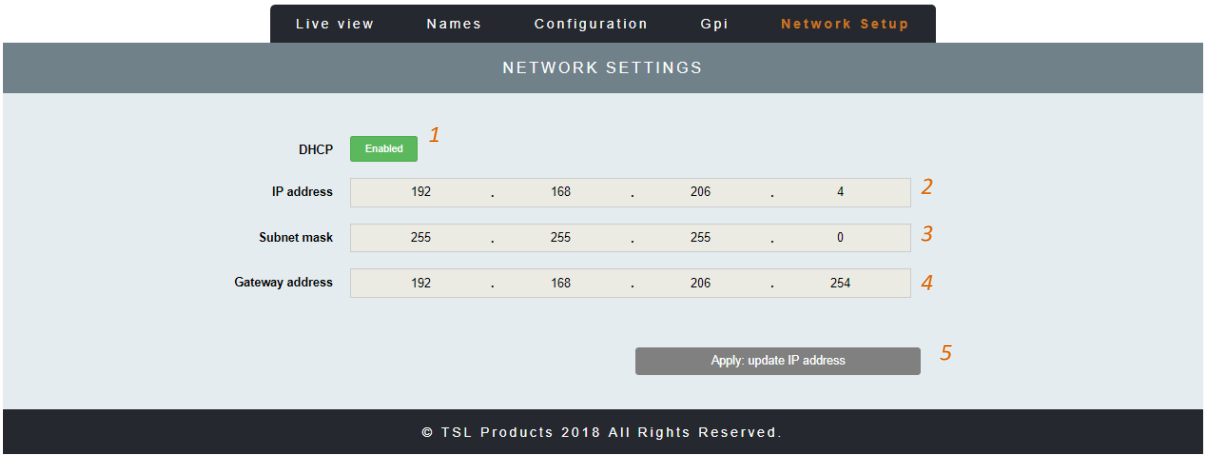


Element	Function	Notes
1	Virtual GPI State button	Displays current Virtual GPI status. Also allows manual activation of Virtual GPI.
2	Virtual GPI Mode Selector	Allows GPI 'Action' to be assigned to Virtual GPI Input
3	Virtual GPI Parameter 1	Defines first Parameter associated with selected GPI 'Action'
4	Virtual GPI Parameter 2	Defines second Parameter associated with selected GPI 'Action'

Please note that Virtual GPI Actions such as DIM and CUT require no further Parameters to be defined, whilst Virtual GPI Actions such as SELECT PAGE or SELECT PAGE and RETURN require entry of the desired audio channel.

All MPA1 Virtual GPI Parameters are zero based, with audio channels 1-16 represented as Parameters 0-15.

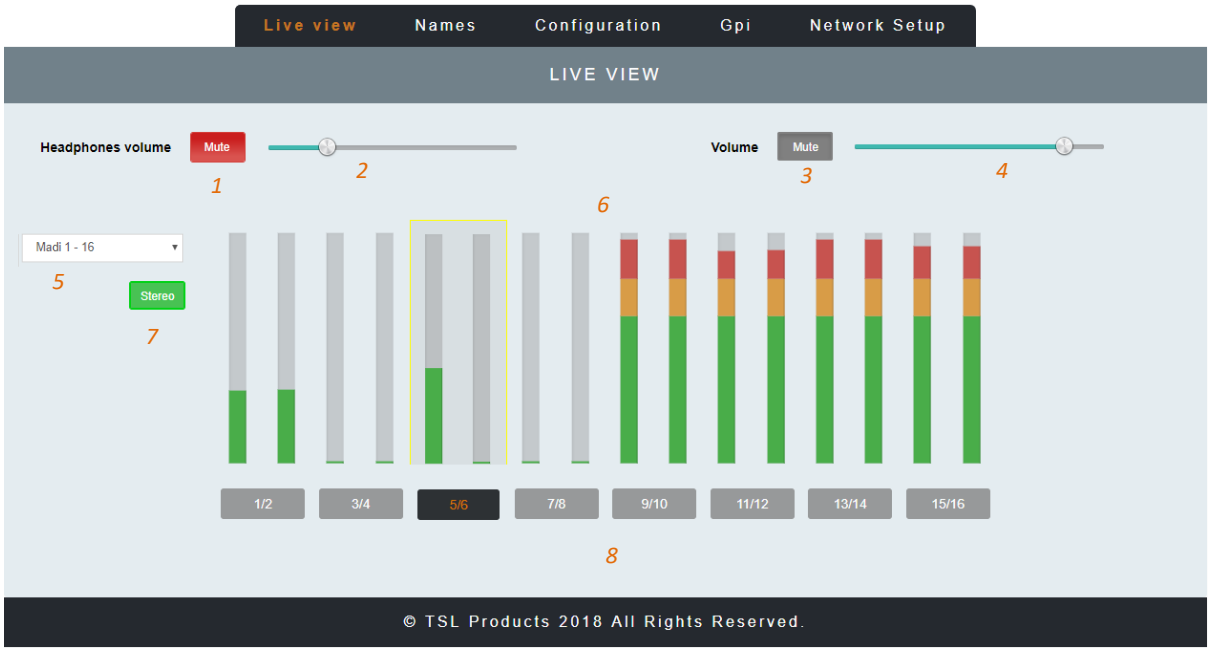
Clicking on the NETWORK SETTINGS Tab of the MPA1-SOLO-SDI Webpage displays the following:



Element	Function	Notes
1	DHCP	Enables/Disables DHCP Mode
2	IP Address	Displays current IP Address and allows new IP Address to be entered.
3	Subnet Mask	Displays current Subnet Mask and allows new Subnet Mask to be entered.
4	Gateway Address	Displays current Gateway Address and allows new Gateway Address to be entered.
5	Apply IP Address	Button to apply IP, Subnet and Gateway addresses to the MPA1-SOLO-SDI

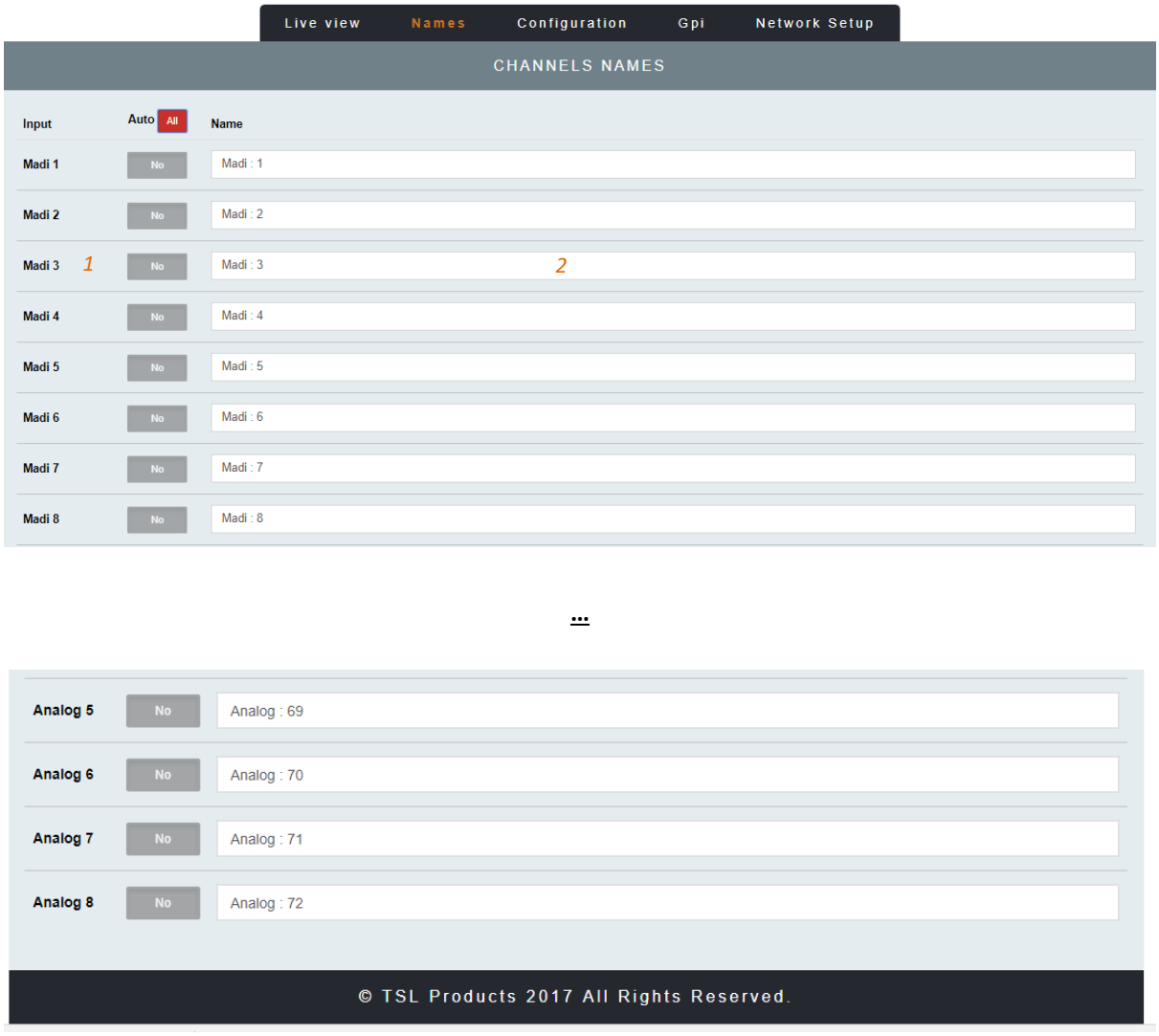
MPA1-SOLO-MADI Web Page

Clicking on the LIVE VIEW Tab of the MPA1-SOLO-MADI Webpage displays the following:



Element	Function	Notes
1	Switch to Mute Headphone Output	Red when Muted, Grey when Active
2	Headphone Output Level adjustment	Adjust as required
3	Switch to MUTE the Loudspeaker Output	Red when Muted, Grey when Active
4	Loudspeaker Output Level Adjustment	Adjust as required
5	Source Selection	Drop down list allowing Input selection of MADI Sources 1-64 and Analog Sources 1-8.
6	Audio Level Meter Display	Displays Audio Levels in accordance with Input Selection
7	Stereo/Mono Switch	Switches between Mono and Stereo monitoring modes.
8	Audio Monitor Selectors	Selects the Single Audio Channel or Audio Pair routed to the headphone and Loudspeaker Outputs.

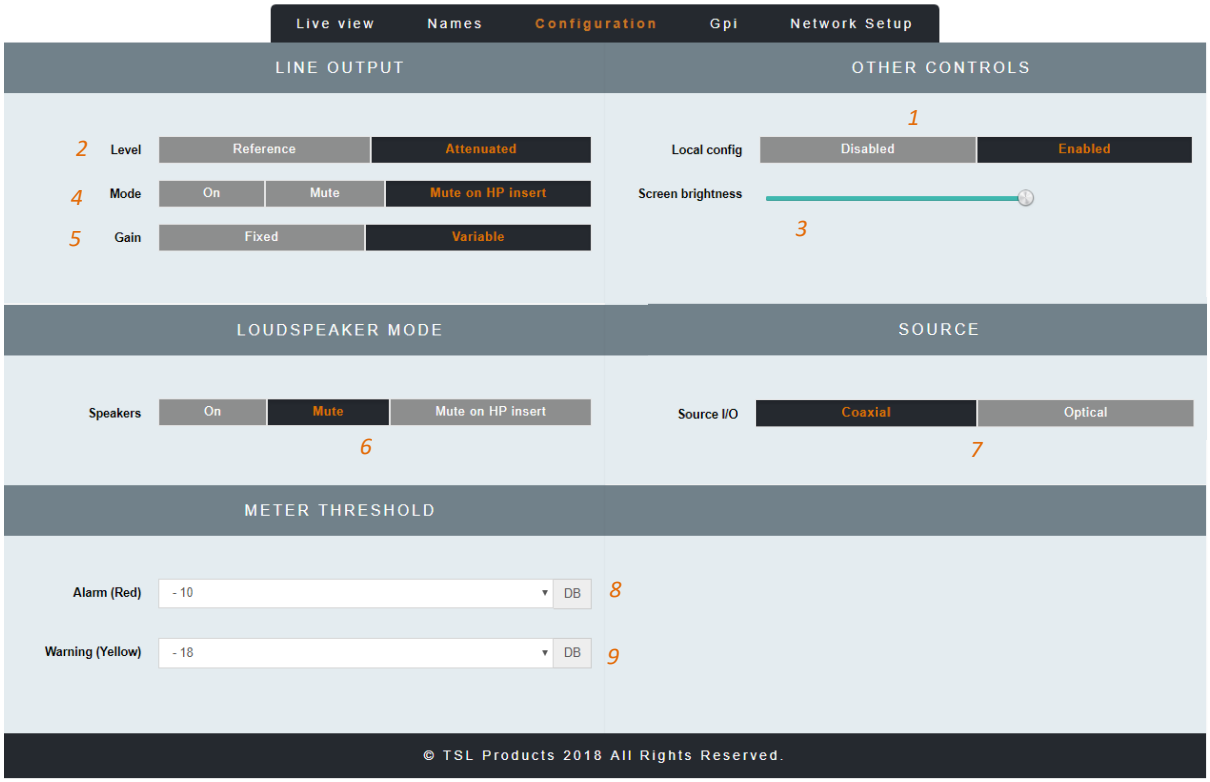
Clicking on the NAMES Tab of the MPA1-SOLO-MADI Webpage displays the following:



Element	Function	Notes
1	MADI/Analogue Channel Number	
2	Source Channel Names	Allows friendly names to be applied to MADI Channels 1-64 and Analogue Channels 1-8*

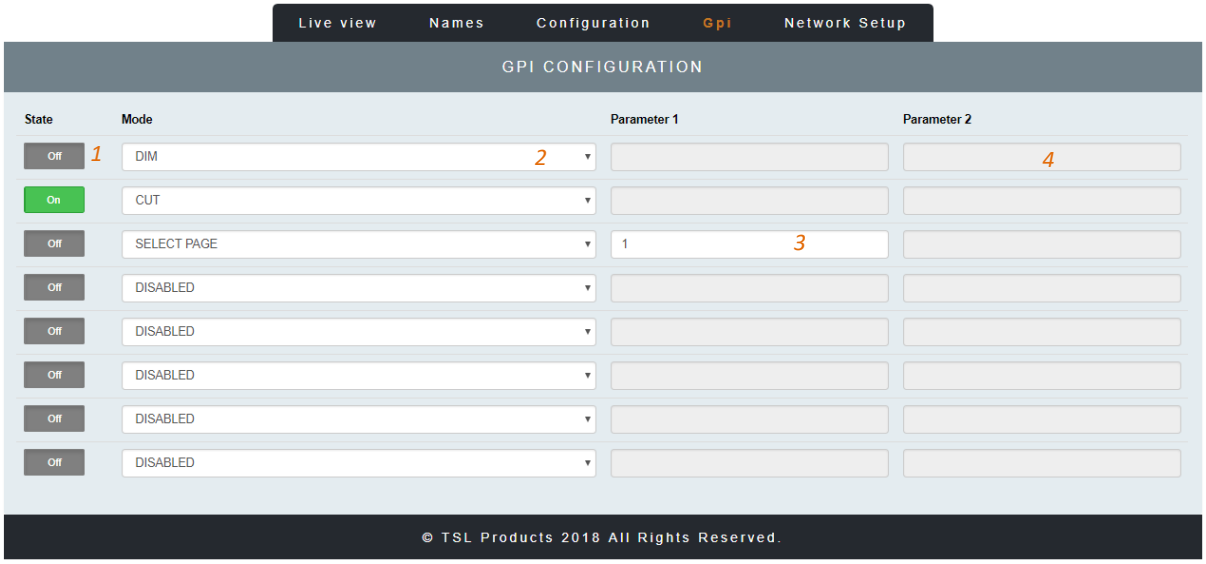
* Please note that the Auto Naming function is fixed to NO on the MP1-SOLO-MADI

Clicking on the CONFIGURATION Tab of the MPA1-SOLO-MADI Webpage displays the following:



Element	Function	Notes
1	Local Config	Enables/Disables configuration from the front panel of the MPA1-SOLO-MADI
2	Line Output Level	Sets the Output Level of the Balanced Line Level Outputs on the MPA1-SOLO-MADI
3	Screen Brightness	Sets the Brightness Level of the front panel display
4	Line Output Mode	Determines behaviour of Balanced Line Level Outputs upon insertion of Headphones.
5	Fixed or Variable Line Output	Determines if Balanced Line Level Outputs provide a Fixed or Variable Output
6	Loudspeaker Mode	Determines behaviour of Internal Loudspeakers upon insertion of Headphones.
7	Source I/O	Switch to set whether the Coaxial BNC or Optical SFP input is to be used to receive MADI
8	Meter Threshold RED	Sets audio threshold at which audio level meters begin to display RED
9	Meter Threshold YELLOW	Sets audio threshold at which audio level meters begin to display YELLOW

Clicking on the GPI Tab of the MPA1-SOLO-MADI Webpage displays the following:

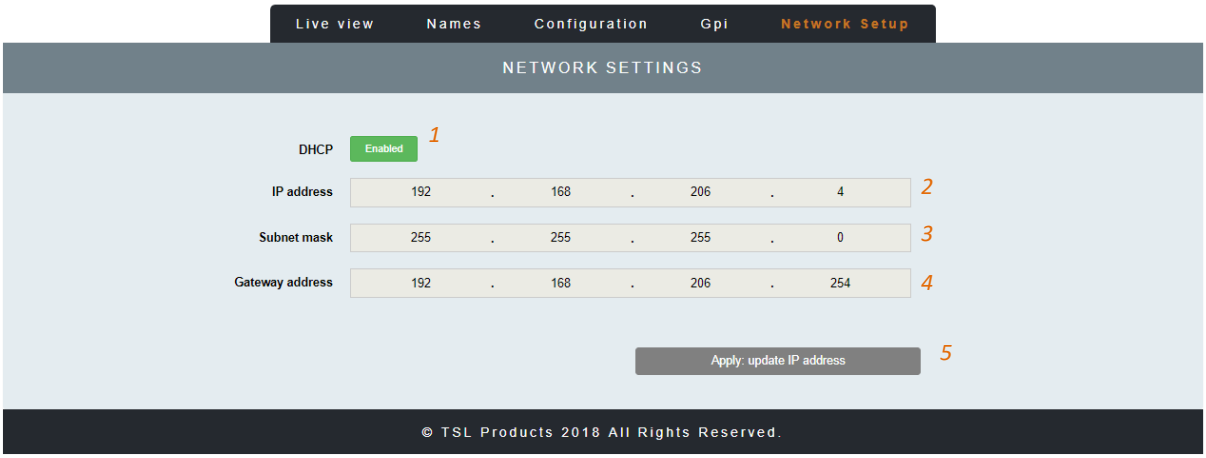


Element	Function	Notes
1	Virtual GPI State button	Displays current Virtual GPI status. Also allows manual activation of Virtual GPI.
2	Virtual GPI Mode Selector	Allows GPI 'Action' to be assigned to Virtual GPI Input
3	Virtual GPI Parameter 1	Defines first Parameter associated with selected GPI 'Action'
4	Virtual GPI Parameter 2	Defines second Parameter associated with selected GPI 'Action'

Please note that Virtual GPI Actions such as DIM and CUT require no further Parameters to be defined, whilst Virtual GPI Actions such as SELECT PAGE or SELECT PAGE and RETURN require entry of the desired audio channel.

All MPA1 Virtual GPI Parameters are zero based, with audio channels 1-16 represented as Parameters 0-15.

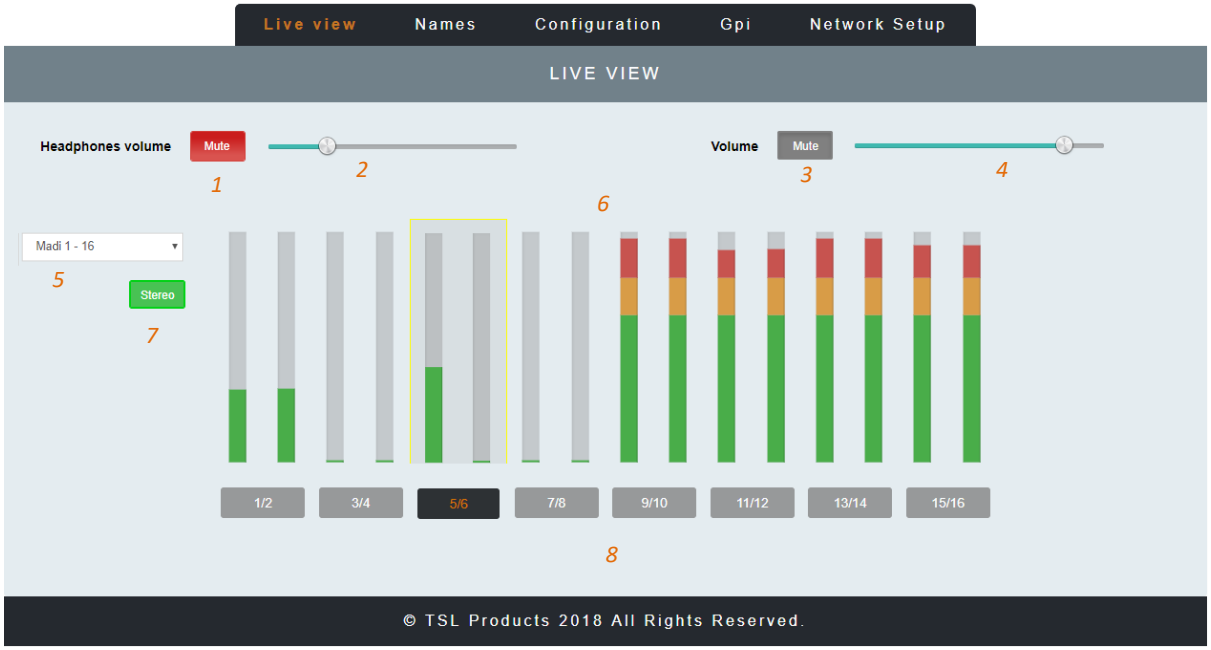
Clicking on the NETWORK SETTINGS Tab of the MPA1-SOLO-MADI Webpage displays the following:



Element	Function	Notes
1	DHCP	Enables/Disables DHCP Mode
2	IP Address	Displays current IP Address and allows new IP Address to be entered.
3	Subnet Mask	Displays current Subnet Mask and allows new Subnet Mask to be entered.
4	Gateway Address	Displays current Gateway Address and allows new Gateway Address to be entered.
5	Apply IP Address	Button to apply IP, Subnet and Gateway addresses to the MPA1-SOLO-MADI

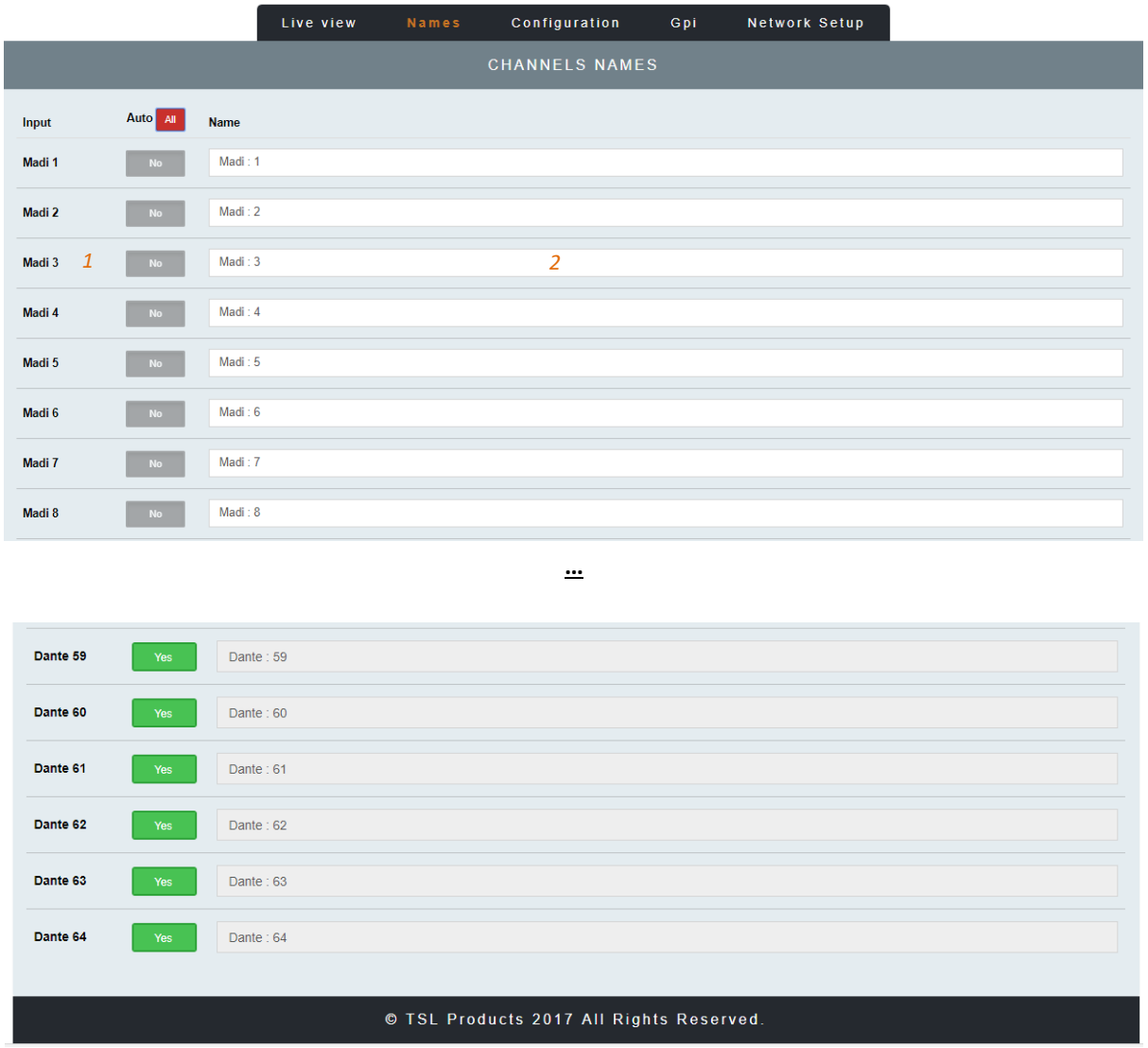
MPA1-SOLO-DANTE Web Page

Clicking on the LIVE VIEW Tab of the MPA1-SOLO-DANTE Webpage displays the following:



Element	Function	Notes
1	Switch to Mute Headphone Output	Red when Muted, Grey when Active
2	Headphone Output Level adjustment	Adjust as required
3	Switch to MUTE the Loudspeaker Output	Red when Muted, Grey when Active
4	Loudspeaker Output Level adjustment	Adjust as required
5	Source Selection	Drop down list allowing Input selection of MADI Sources 1-64 and Dante Sources 1-64
6	Audio Level Meter Display	Displays Audio Levels in accordance with Input Selection
7	Stereo/Mono Switch	Switches between Mono and Stereo monitoring modes
8	Audio Monitor Selectors	Selects the Single Audio Channel or Audio Pair routed to the Headphone and Loudspeaker Outputs

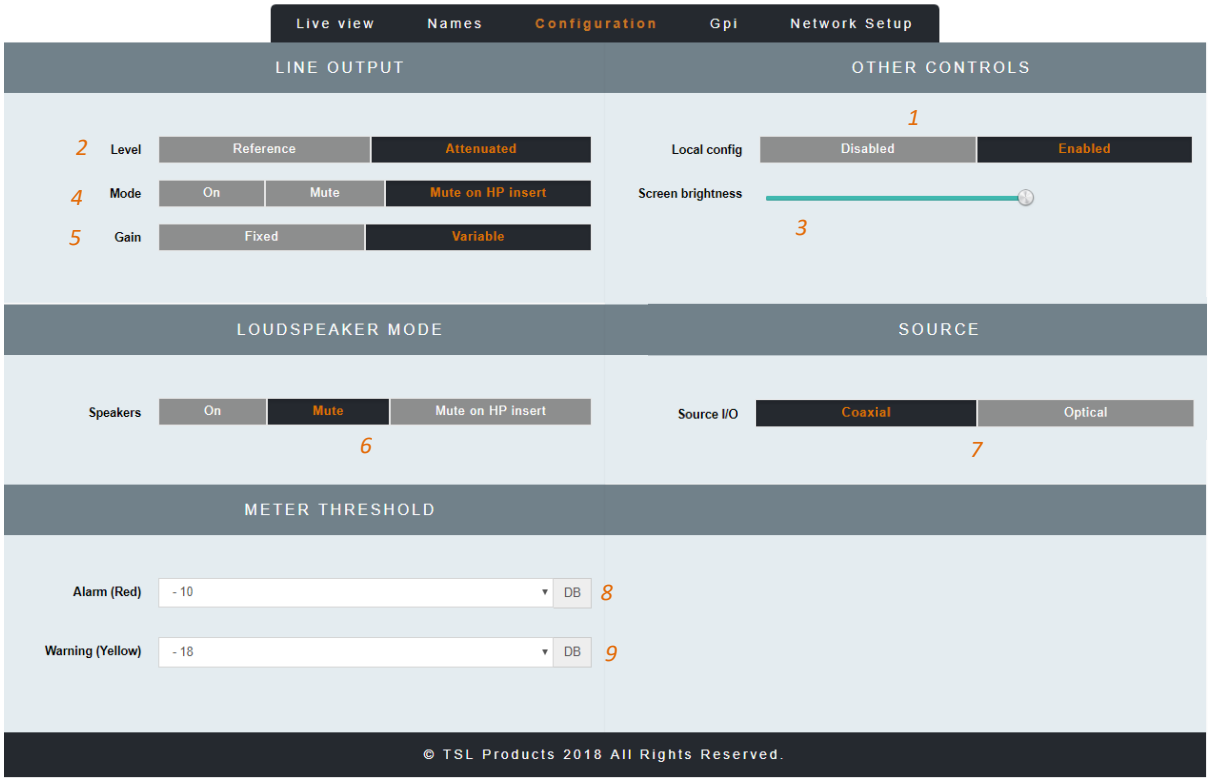
Clicking on the NAMES Tab of the MPA1-SOLO-DANTE Webpage displays the following:



Element	Function	Notes
1	DANTE/MADI Channel Number	
2	Source Channel Names	Allows friendly names to be applied to DANTE Channels 1-64 and MADI Channels 1-64*

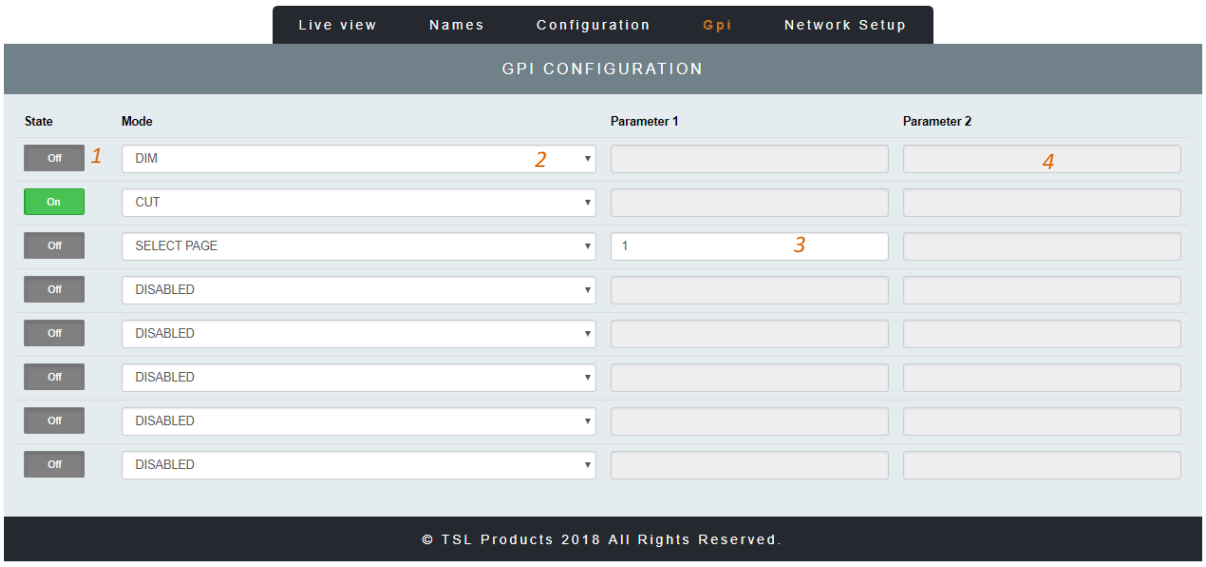
* Please note that the Auto Naming function is fixed to NO on the MP1-SOLO-MADI for MADI Sources. When Auto Naming is set to 'YES' for DANTE sources, friendly names will be ignored, with Source Names as set in DANTE Controller

Clicking on the CONFIGURATION Tab of the MPA1-SOLO-DANTE Webpage displays the following:



Element	Function	Notes
1	Local Config	Enables/Disables configuration from the front panel of the MPA1-SOLO-DANTE
2	Line Output Level	Sets the Output Level of the Balanced Line Level Outputs on the MPA1-SOLO-DANTE
3	Screen Brightness	Sets the Brightness Level of the front panel display
4	Line Output Mode	Determines behaviour of Balanced Line Level Outputs upon insertion of Headphones.
5	Fixed or Variable Line Output	Determines if Balanced Line Level Outputs provide a Fixed or Variable Output
6	Loudspeaker Mode	Determines behaviour of Internal Loudspeakers upon insertion of Headphones.
7	Source I/O	Switch to set whether the Coaxial BNC or Optical SFP input is to be used to receive MADI
8	Meter Threshold RED	Sets audio threshold at which audio level meters begin to display RED
9	Meter Threshold YELLOW	Sets audio threshold at which audio level meters begin to display YELLOW

Clicking on the GPI Tab of the MPA1-SOLO-DANTE Webpage displays the following:

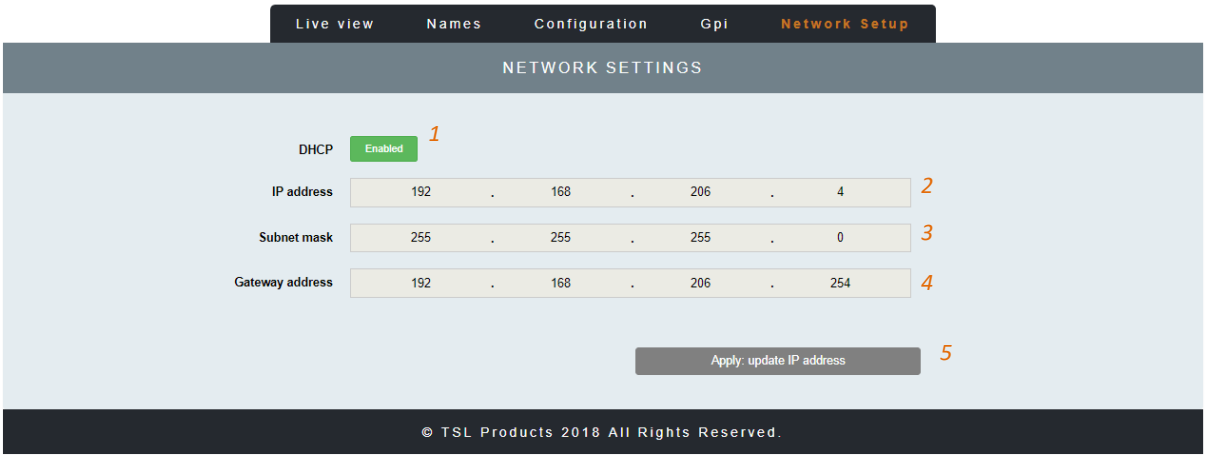


Element	Function	Notes
1	Virtual GPI State button	Displays current Virtual GPI status. Also allows manual activation of Virtual GPI.
2	Virtual GPI Mode Selector	Allows GPI 'Action' to be assigned to Virtual GPI Input
3	Virtual GPI Parameter 1	Defines first Parameter associated with selected GPI 'Action'
4	Virtual GPI Parameter 2	Defines second Parameter associated with selected GPI 'Action'

Please note that Virtual GPI Actions such as DIM and CUT require no further Parameters to be defined, whilst Virtual GPI Actions such as SELECT PAGE or SELECT PAGE and RETURN require entry of the desired audio channel.

All MPA1 Virtual GPI Parameters are zero based, with audio channels 1-16 represented as Parameters 0-15.

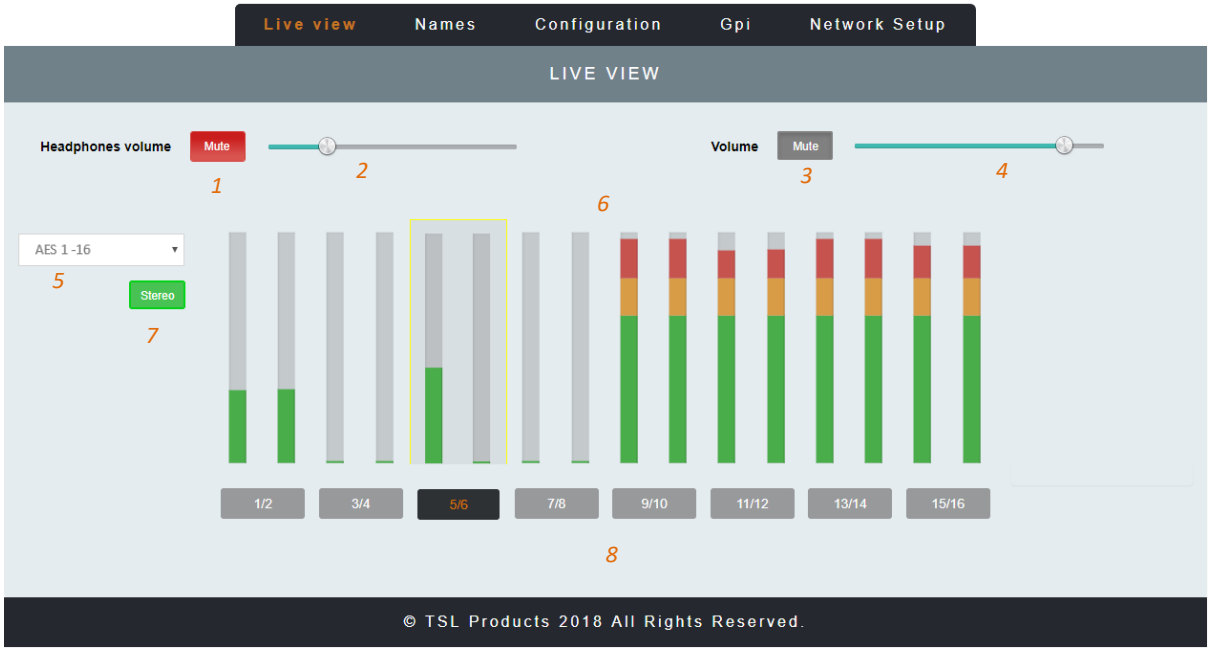
Clicking on the NETWORK SETTINGS Tab of the MPA1-SOLO-DANTE Webpage displays the following:



Element	Function	Notes
1	DHCP	Enables/Disables DHCP Mode
2	IP Address	Displays current IP Address and allows new IP Address to be entered.
3	Subnet Mask	Displays current Subnet Mask and allows new Subnet Mask to be entered.
4	Gateway Address	Displays current Gateway Address and allows new Gateway Address to be entered.
5	Apply IP Address	Button to apply IP, Subnet and Gateway addresses to the MPA1-SOLO-DANTE

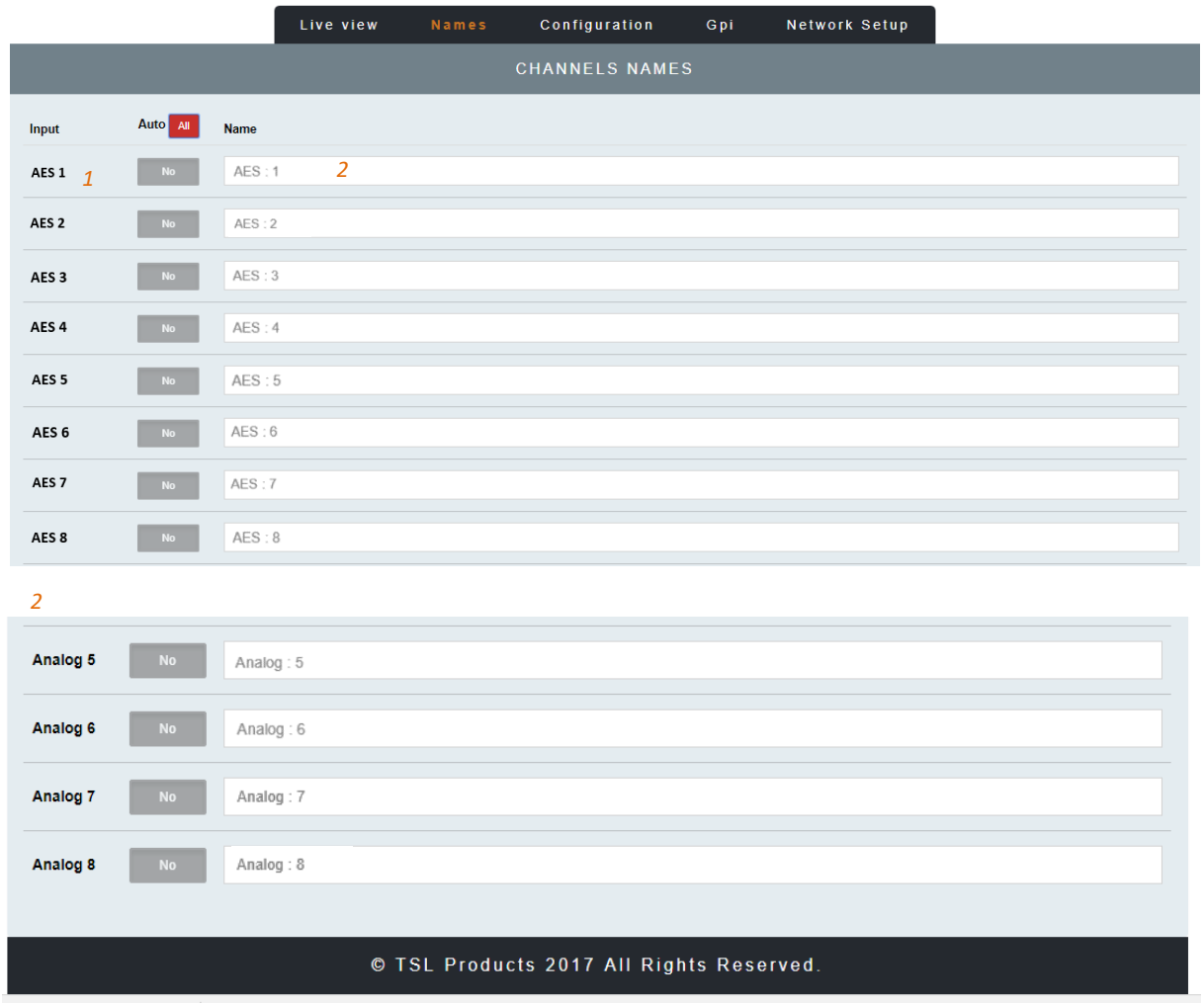
MPA1-SOLO-8 Web Page

Clicking on the LIVE VIEW Tab of the MPA1-SOLO-8 Webpage displays the following:



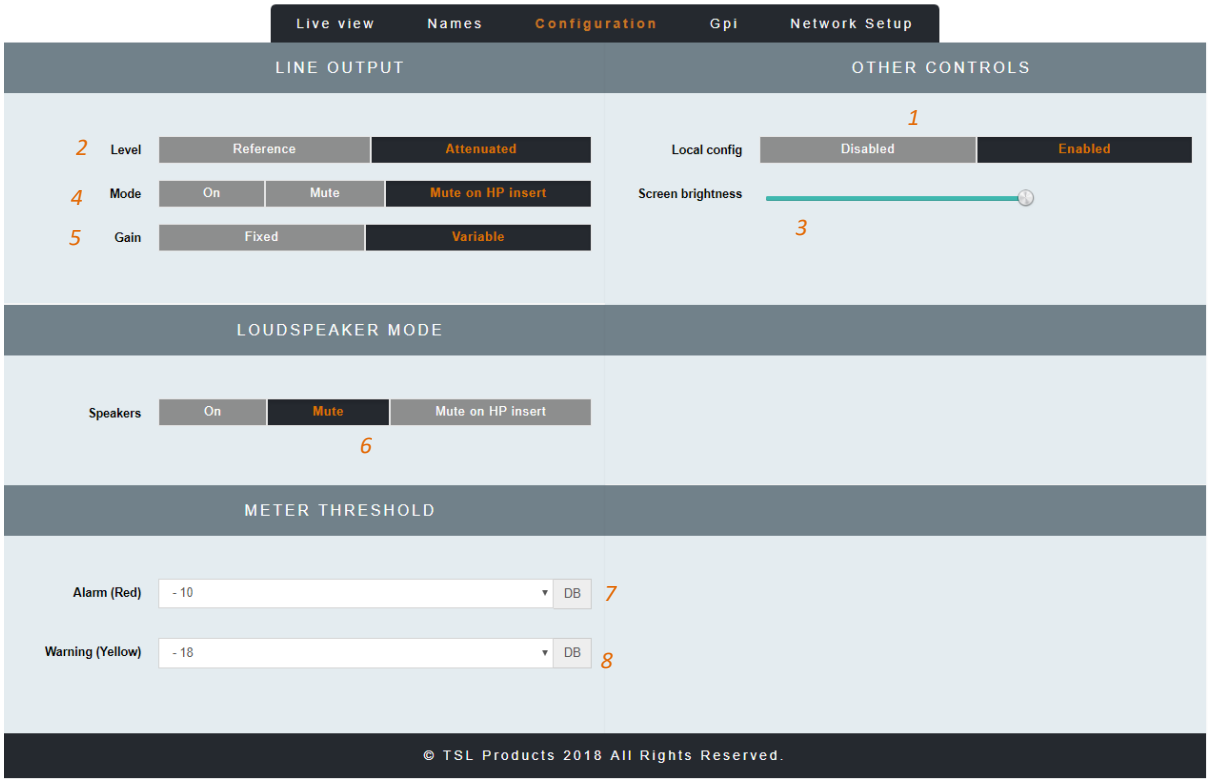
Element	Function	Notes
1	Switch to Mute Headphone Output	Red when Muted, Grey when Active
2	Headphone Output Level adjustment	Adjust as required
3	Switch to MUTE the Loudspeaker Output	Red when Muted, Grey when Active
4	Loudspeaker Output Level Adjustment	Adjust as required
5	Source Selection	Drop down list allowing Input selection of AES Sources 1-16 and Analog Sources 1-16.
6	Audio Level Meter Display	Displays Audio Levels in accordance with Input Selection
7	Stereo/Mono Switch	Switches between Mono and Stereo monitoring modes.
8	Audio Monitor Selectors	Selects the Single Audio Channel or Audio Pair routed to the headphone and Loudspeaker Outputs.

Clicking on the NAMES Tab of the MPA1-SOLO-8 Webpage displays the following:



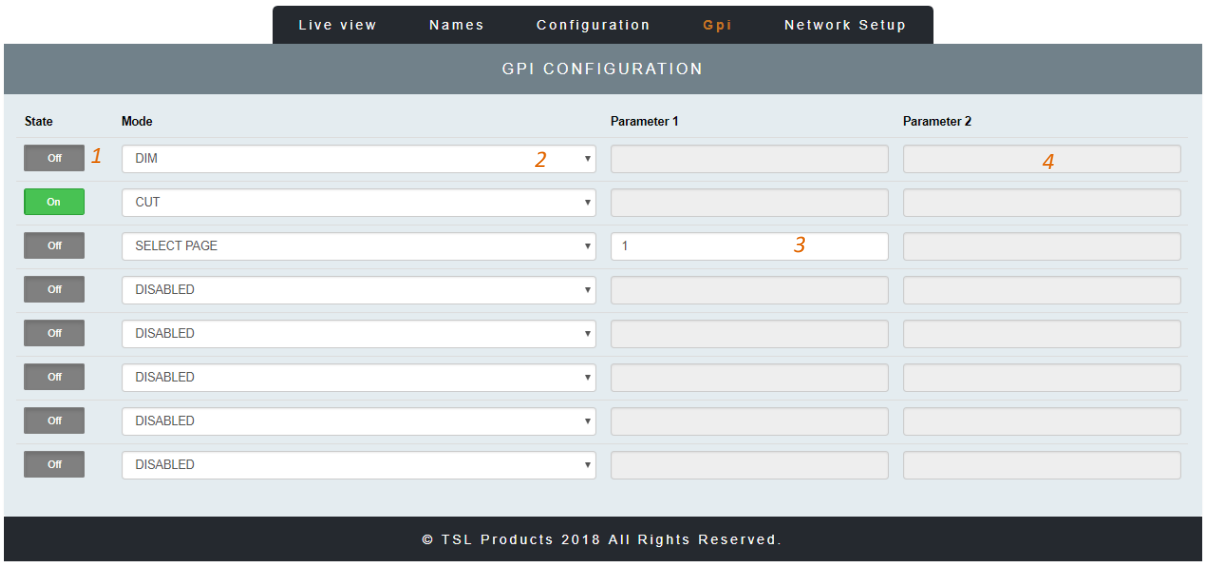
Element	Function	Notes
1	AES/Analog Channel Number	
2	Source Channel Names	Allows friendly names to be applied to AES Channels 1-16 and Analog Channels 1-16

Clicking on the CONFIGURATION Tab of the MPA1-SOLO-8 Webpage displays the following:



Element	Function	Notes
1	Local Config	Enables/Disables configuration from the front panel of the MPA1-SOLO-8
2	Line Output Level	Sets the Output Level of the Balanced Line Level Outputs on the MPA1-SOLO-8
3	Screen Brightness	Sets the Brightness Level of the front panel display
4	Line Output Mode	Determines behaviour of Balanced Line Level Outputs upon insertion of Headphones.
5	Fixed or Variable Line Output	Determines if Balanced Line Level Outputs provide a Fixed or Variable Output
6	Loudspeaker Mode	Determines behaviour of Internal Loudspeakers upon insertion of Headphones.
7	Meter Threshold RED	Sets audio threshold at which audio level meters begin to display RED
8	Meter Threshold YELLOW	Sets audio threshold at which audio level meters begin to display YELLOW

Clicking on the GPI Tab of the MPA1-SOLO-8 Webpage displays the following:

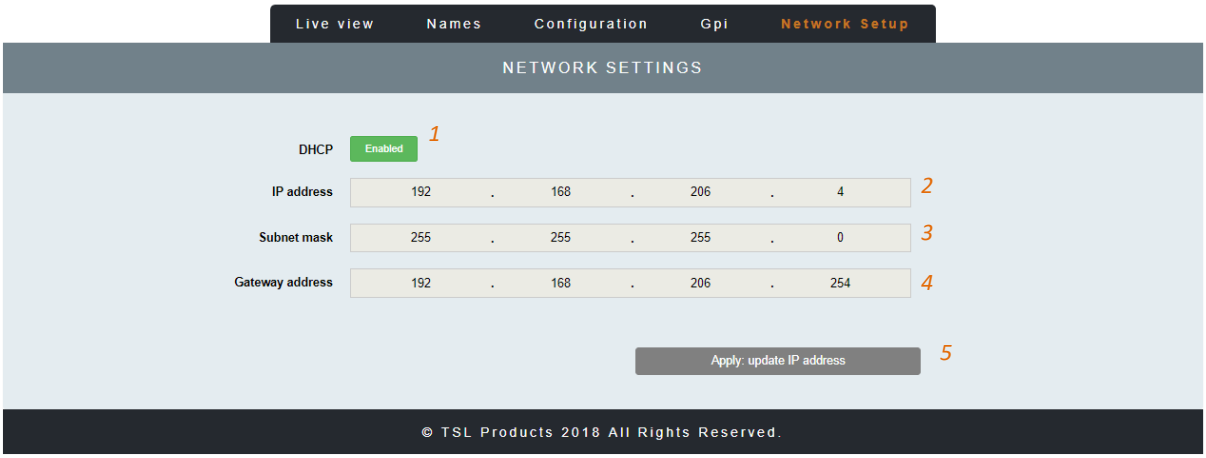


Element	Function	Notes
1	Virtual GPI State button	Displays current GPI status. Also allows manual activation of Virtual GPI.
2	Virtual GPI Mode Selector	Allows GPI 'Action' to be assigned to GPI Input
3	Virtual GPI Parameter 1	Defines first Parameter associated with selected GPI 'Action'
4	Virtual GPI Parameter 2	Defines second Parameter associated with selected GPI 'Action'

Please note that Virtual GPI Actions such as DIM and CUT require no further Parameters to be defined, whilst Virtual GPI Actions such as SELECT PAGE or SELECT PAGE and RETURN require entry of the desired audio channel.

All MPA1 Virtual GPI Parameters are zero based, with audio channels 1-16 represented as Parameters 0-15.

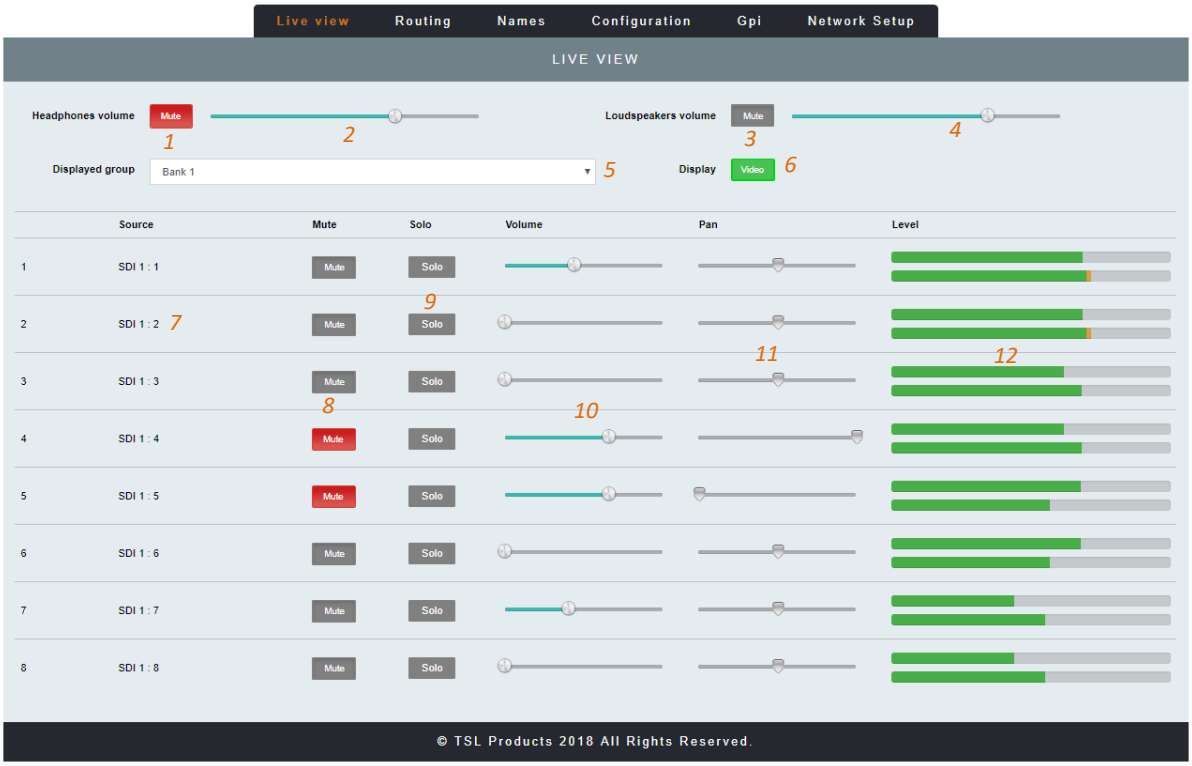
Clicking on the NETWORK SETTINGS Tab of the MPA1-SOLO-8 Webpage displays the following:



Element	Function	Notes
1	DHCP	Enables/Disables DHCP Mode
2	IP Address	Displays current IP Address and allows new IP Address to be entered.
3	Subnet Mask	Displays current Subnet Mask and allows new Subnet Mask to be entered.
4	Gateway Address	Displays current Gateway Address and allows new Gateway Address to be entered.
5	Apply IP Address	Button to apply IP, Subnet and Gateway addresses to the MPA1-SOLO-8

MPA1-MIX-SDI Web Page

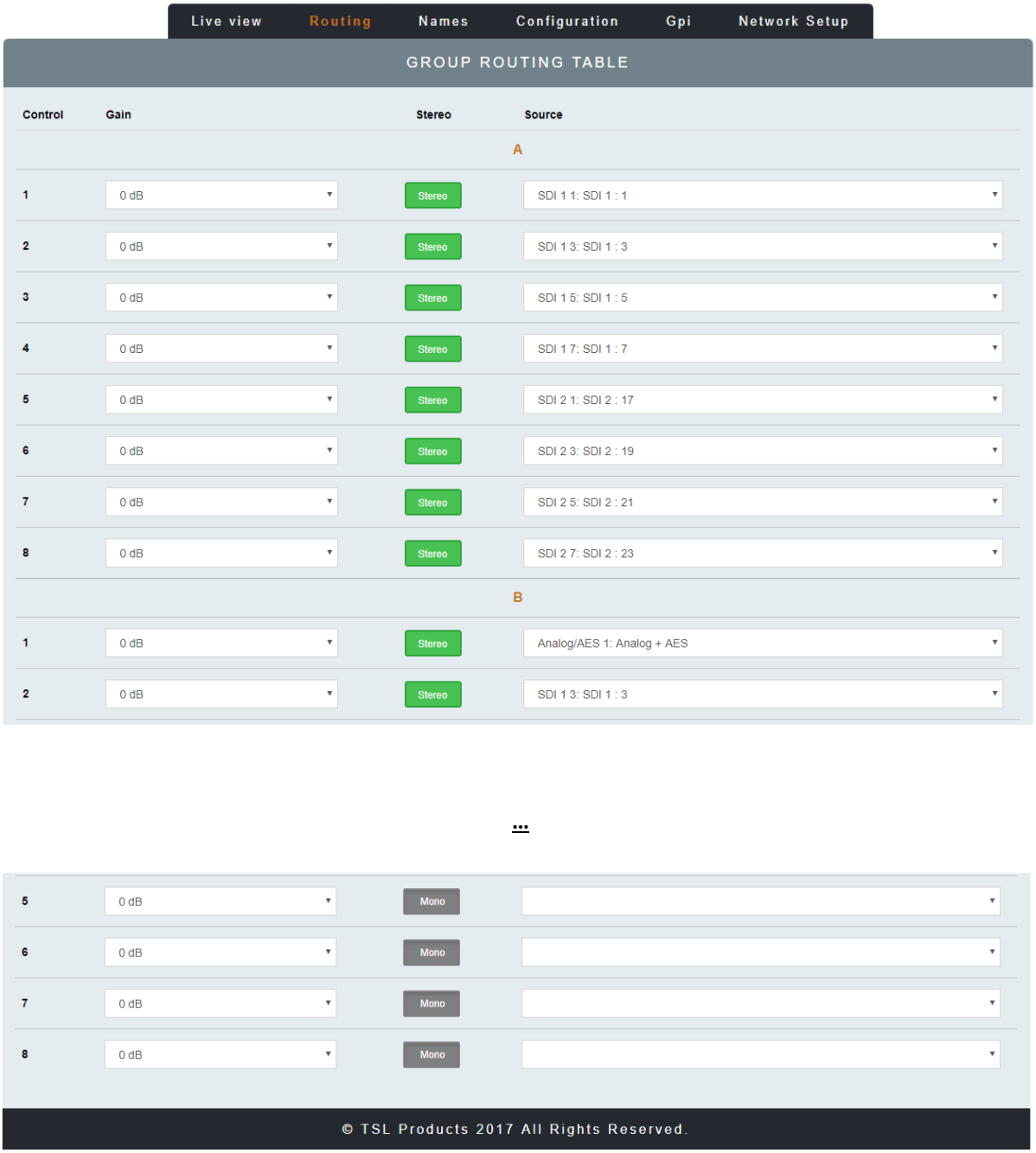
Clicking on the LIVE VIEW Tab of the MPA1-MIX-SDI Webpage displays the following:



Element	Function	Notes
1	Switch to Mute Headphone Output	Red when Muted, Grey when Active
2	Headphone Output Level adjustment	Adjust as required
3	Switch to Mute the Loudspeaker Output	Red when Muted, Grey when Active
4	Loudspeaker Output Level adjustment	Adjust as required
5	Mix Bank Selection	Drop down list allowing recall of one of 16 Audio Mix Banks (A-P)
6	Display	Switches Front Panel Display of MPA1-MIX-SDI between Audio Meters and SDI Video Source
7	Source Name	Displays Source and Friendly Name*
8	Channel Mute	Mutes Selected Channel
9	Channel Solo	Places Selected Channel in Solo Mode (Click and Hold)
10	Channel Volume	Adjusts channel Volume within overall Mix
11	Channel Pan	Adjusts channel Pan within overall Mix
12	Audio Level Meters	Audio Level Display

* Friendly Names can be set in the NAMES Tab

Clicking on the ROUTING Tab of the MPA1-MIX-SDI Webpage displays the following:



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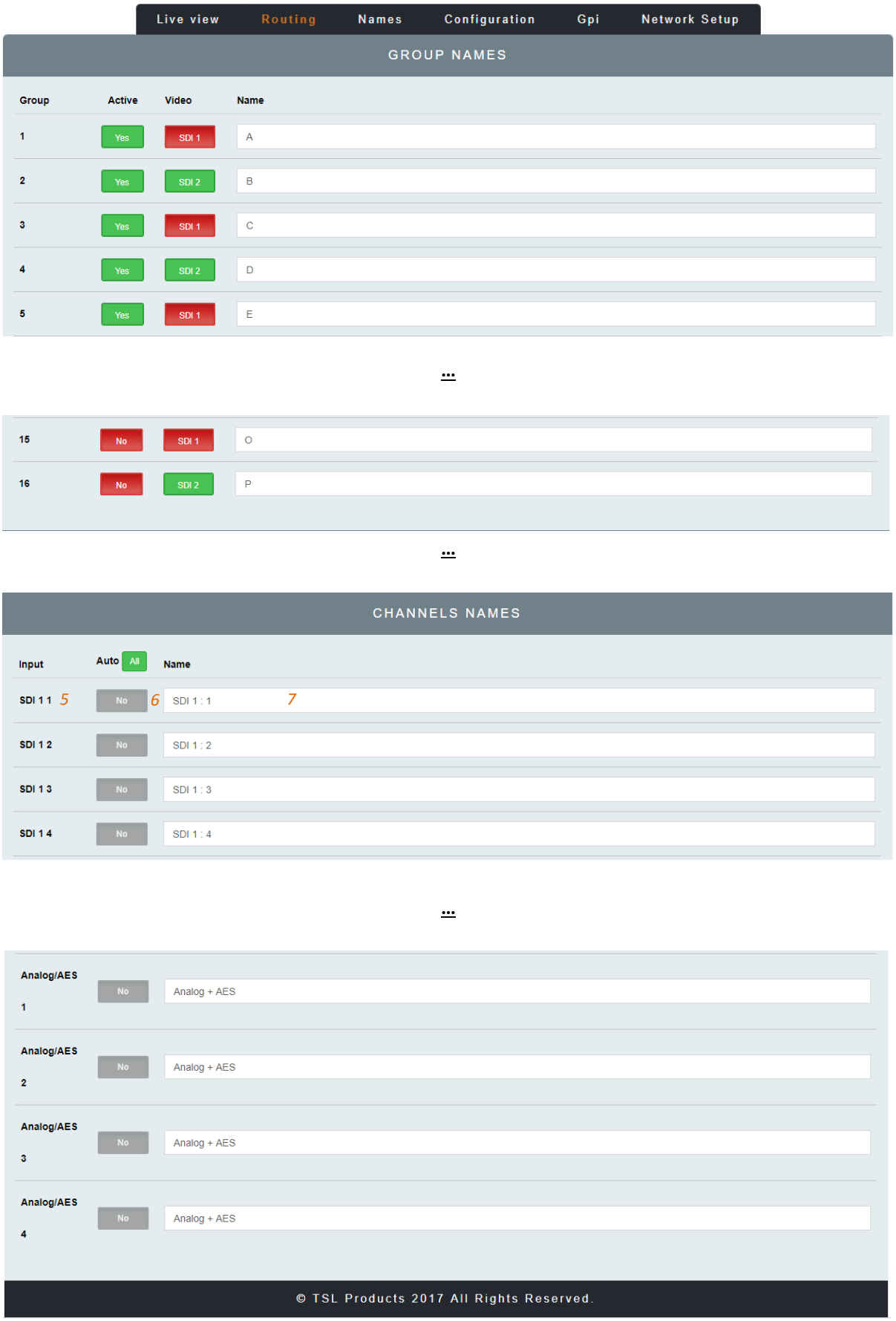
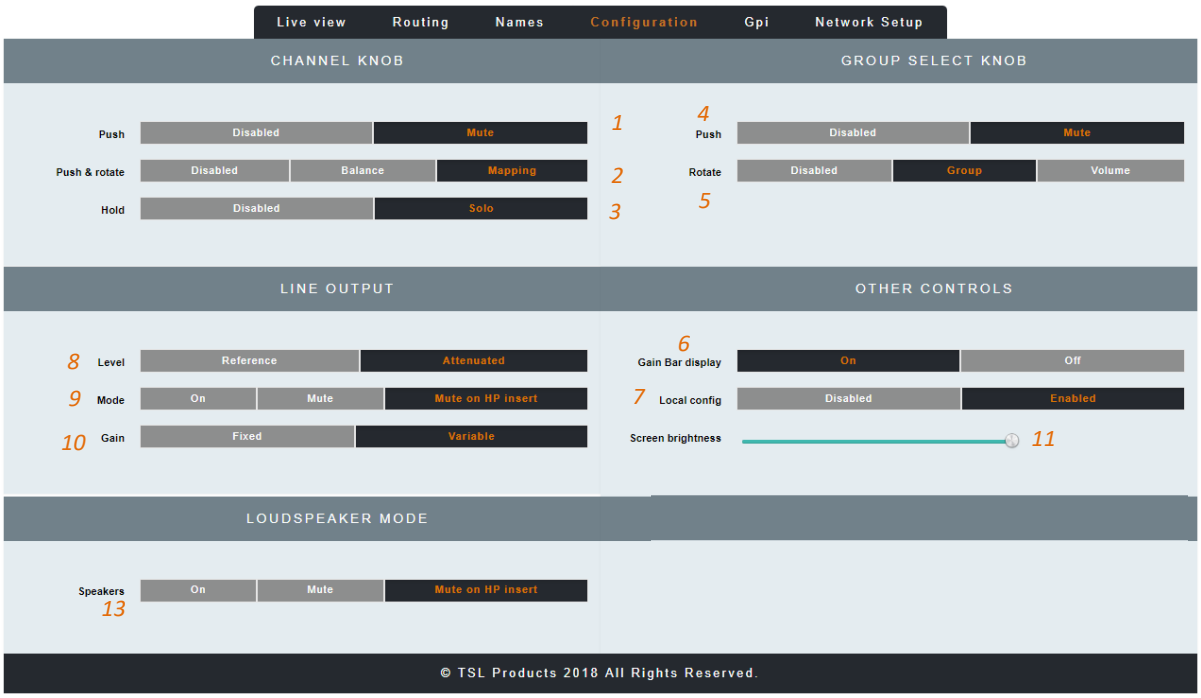
Element	Function	Notes
1	Mix Bank Identifier	Identifies one of the 16 Mix Banks (A-P)
2	Channel Number	Channel number of source contributing to Mix Bank (1-8)
3	Audio Channel Gain Preset	Allows +20dB, +10db, 0dB, -10dB or -20dB to be applied to Audio Channel Input
4	Stereo/Mono Switch	Switches Input Channel between Audio Channel and Audio Pair Mode
5	Audio Channel Selector	Selects Audio Channels contributing to chosen Mix Bank. Audio Channels Embedded in SDI 1, SDI 2 and AES and Analogue Inputs can be selected.

Clicking on the NAMES Tab of the MPA1-MIX-SDI Webpage displays the following:



Element	Function	Notes
1	Mix Bank Identifier	Identifies one of the 16 Mix Banks (A-P)
2	Active Switch	Determines which MIX Banks are available for selection on the front panel of the MPA1-MIX-SDI.
3	Video Switch	Determines which SDI Video Source is displayed on the front panel, reclocked SDI Output and HDMI Output for each MIX Bank
4	Mix Bank Name	Friendly Name of MIX Bank*
5	Physical Input Identifier	Physical Input and Channel Number
6	Auto Naming Function	Not Supported
7	Friendly Name	Allows friendly names to be applied to SDI Embedded Audio, AES and Analogue Audio Channels

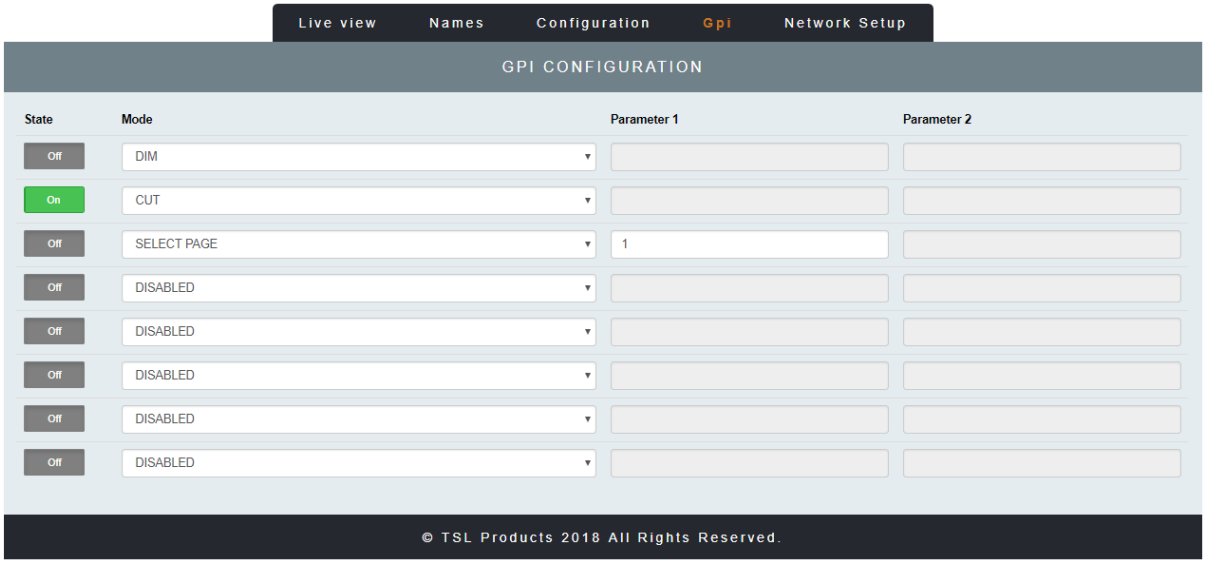
Clicking on the CONFIGURATION Tab of the MPA1-MIX-SDI Webpage displays the following:



Element	Function	Notes
1	Channel Knob Push	Enables/Disables 'Push to Mute' function of Channel Rotary Encoders on front panel of MPA1-MIX-MADI
2	Channel Knob Push and Rotate	Determines 'Push and Rotate' behaviour of Channel Rotary Encoders on the front panel of the MPA1-MIX-MADI. When set to Balance, the Audio Balance of the selected Audio Channel can be adjusted. When set to Mapping, the Physical Audio Channel assigned to the Mix Channel can be selected.
3	Channel Knob Push and Hold	Enables/Disables 'Push and Hold to Solo' function of Channel Rotary Encoders on front panel of MPA1-MIX-MADI
4	Group Select Knob Push	Enables/Disables Push to MUTE function of Headphone, Internal Loudspeakers and Balanced Line Outputs using Group Select Knob
5	Group Select Knob Rotate	Determines whether Group Select Knob is Enabled/Disabled. Selecting Group allows Mix Groups to be selected from the front panel of the MPA-MIX-MADI, whilst selecting Volume allows level adjustment on the Internal Loudspeakers and Balanced Line Level Outputs.
6	Gain Bar Display	Enables/Disables the Gain Bar Display from the front panel of the MPA1-MIX-MADI

7	Local Config	Enables/Disables configuration from the front panel of the MPA1-MIX-SDI
8	Line Output Level	Sets the Output Level of the Balanced Line Level Outputs on the MPA1-MIX-SDI
9	Line Output Mode	Determines behaviour of Balanced Line Level Outputs upon insertion of Headphones.
10	Fixed or Variable Line Output	Determines if Balanced Line Level Outputs provide a Fixed or Variable Output
11	Screen Brightness	Sets the Brightness Level of the front panel display
12	MADI Source	Determines if MADI Sources are derived from Coaxial BNC or Optical SFP Input.
13	Loudspeaker Mode	Determines the behaviour of Internal Loudspeakers upon insertion of Headphones

Clicking on the GPI Tab of the MPA1-MIX-SDI Webpage displays the following:

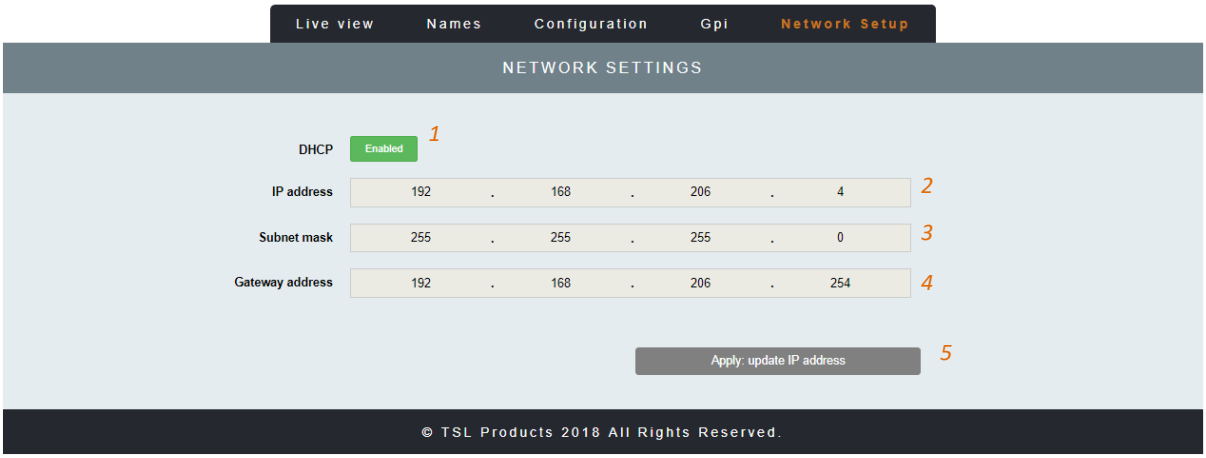


Element	Function	Notes
1	Virtual GPI State button	Displays current GPI status. Also allows manual activation of Virtual GPI.
2	Virtual GPI Mode Selector	Allows GPI 'Action' to be assigned to GPI Input
3	Virtual GPI Parameter 1	Defines first Parameter associated with selected GPI 'Action'
4	Virtual GPI Parameter 2	Defines second Parameter associated with selected GPI 'Action'

Please note that Virtual GPI Actions such as DIM and CUT require no further Parameters to be defined, whilst Virtual GPI Actions such as SELECT PAGE or SELECT PAGE and RETURN require entry of the desired audio channel.

All MPA1 Virtual GPI Parameters are zero based, with audio channels 1-16 represented as Parameters 0-15.

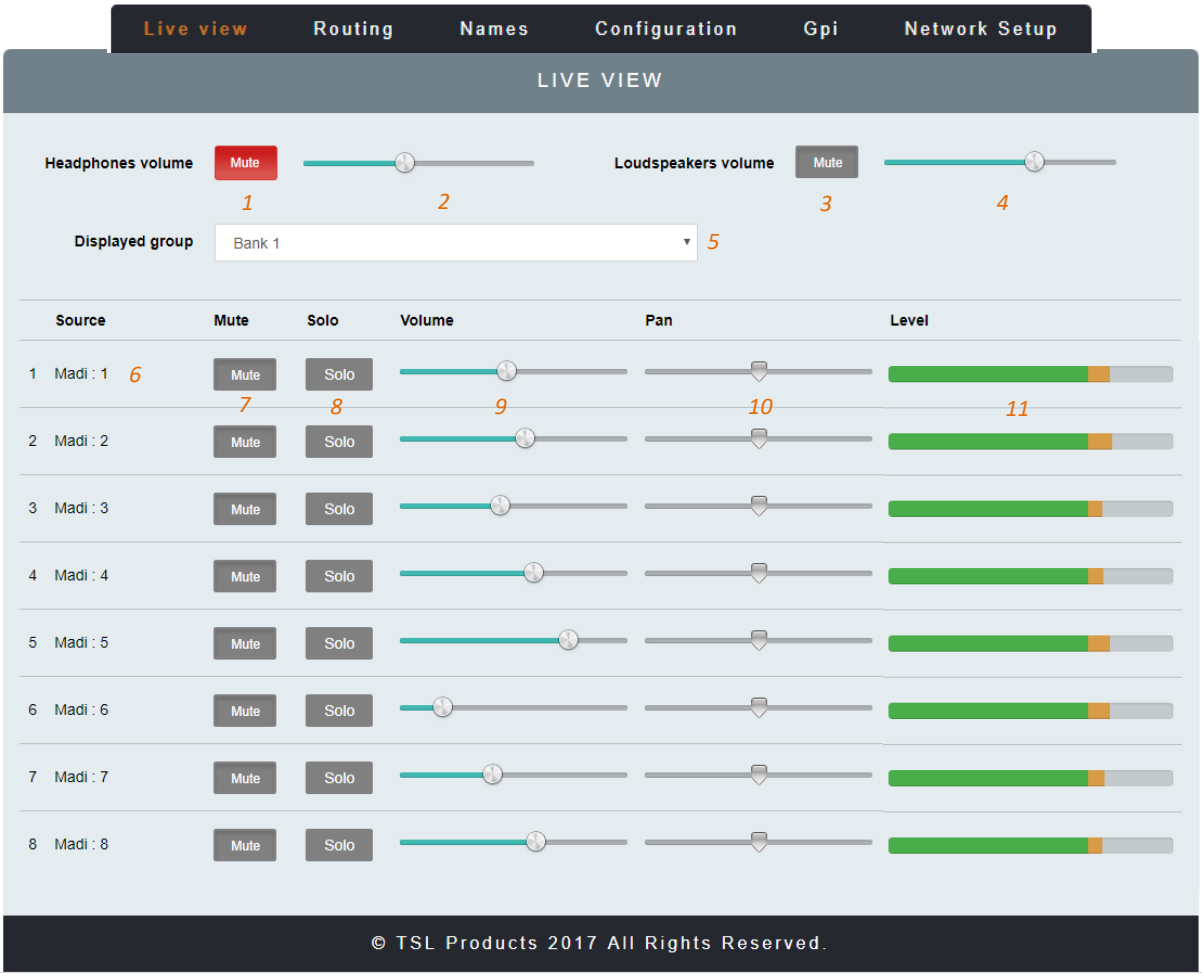
Clicking on the NETWORK SETTINGS Tab of the MPA1-MIX-SDI Webpage displays the following:



Element	Function	Notes
1	DHCP	Enables/Disables DHCP Mode
2	IP Address	Displays current IP Address and allows new IP Address to be entered.
3	Subnet Mask	Displays current Subnet Mask and allows new Subnet Mask to be entered.
4	Gateway Address	Displays current Gateway Address and allows new Gateway Address to be entered.
5	Apply IP Address	Button to apply IP, Subnet and Gateway addresses to the MPA1-MIX-SDI

MPA1-MIX-MADI Web Page

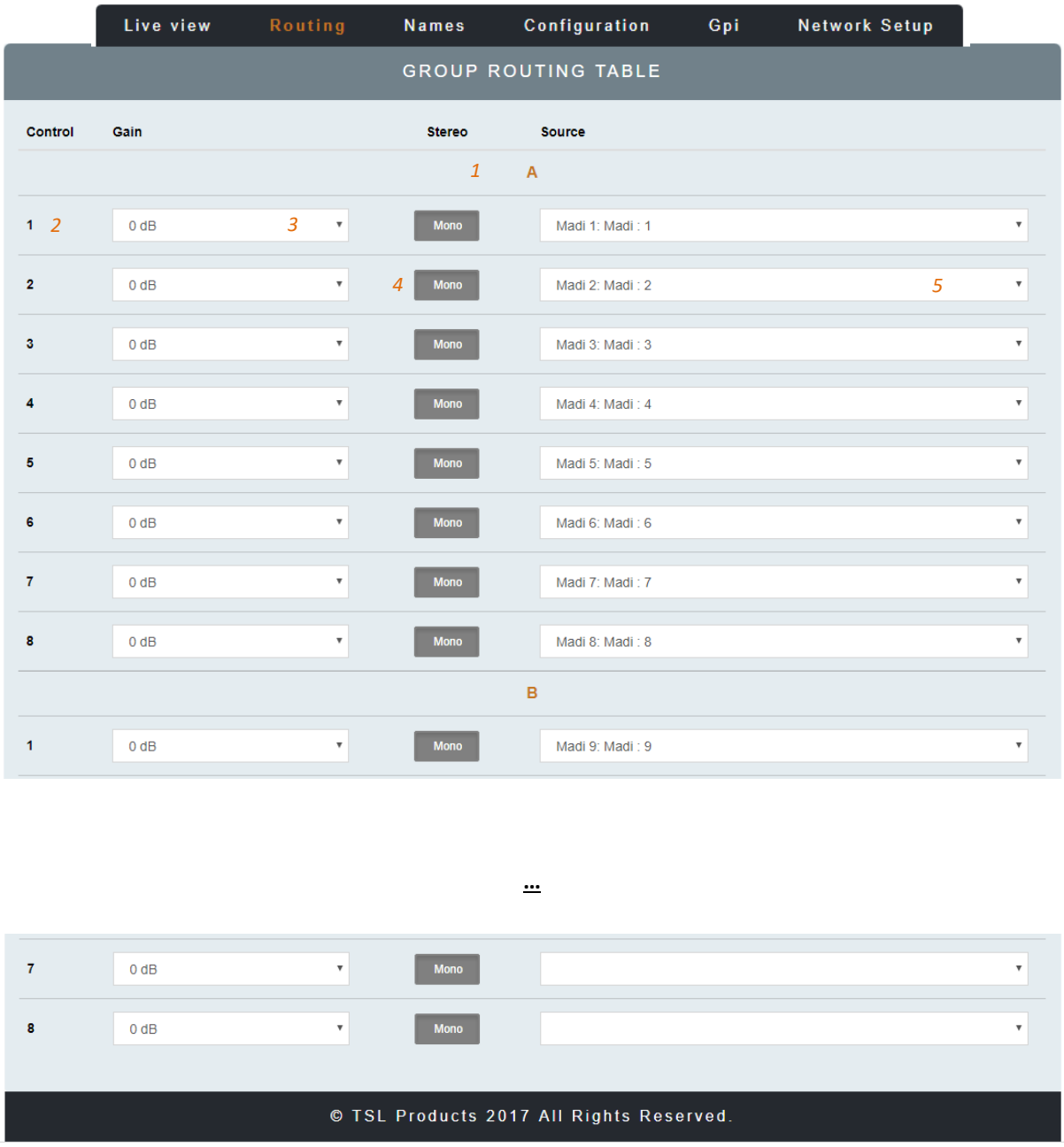
Clicking on the LIVE VIEW Tab of the MPA1-MIX-MADI Webpage displays the following:



Element	Function	Notes
1	Switch to Mute Headphone Output	Red when Muted, Grey when Active
2	Headphone Output Level adjustment	Adjust as required
3	Switch to Mute the Loudspeaker Output	Red when Muted, Grey when Active
4	Loudspeaker Output Level adjustment	Adjust as required
5	Mix Bank Selection	Drop down list allowing recall of one of 16 Audio Mix Banks (A-P)
6	Source Name	Displays Source and Friendly Name*
7	Channel Mute	Mutes Selected Channel
8	Channel Solo	Places Selected Channel in Solo Mode (Click and Hold)
9	Channel Volume	Adjusts channel Volume within overall Mix
10	Channel Pan	Adjusts channel Pan within overall Mix
11	Audio Level Meters	Audio Level Display

* Friendly Names can be set in the NAMES Tab

Clicking on the ROUTING Tab of the MPA1-MIX-MADI Webpage displays the following:



Element	Function	Notes
1	Mix Bank Identifier	Identifies one of the 16 Mix Banks (A-P)
2	Channel Number	Channel number of source contributing to Mix Bank (1-8)
3	Audio Channel Gain Preset	Allows +20dB, +10db, 0dB, -10dB or -20dB to be applied to Audio Channel Input
4	Stereo/Mono Switch	Switches Input Channel between Audio Channel and Audio Pair Mode
5	Audio Channel Selector	Selects Audio Channels contributing to chosen Mix Bank. MADI Channels 1-64 can be selected.

Clicking on the NAMES Tab of the MPA1-MIX-MADI Webpage displays the following:

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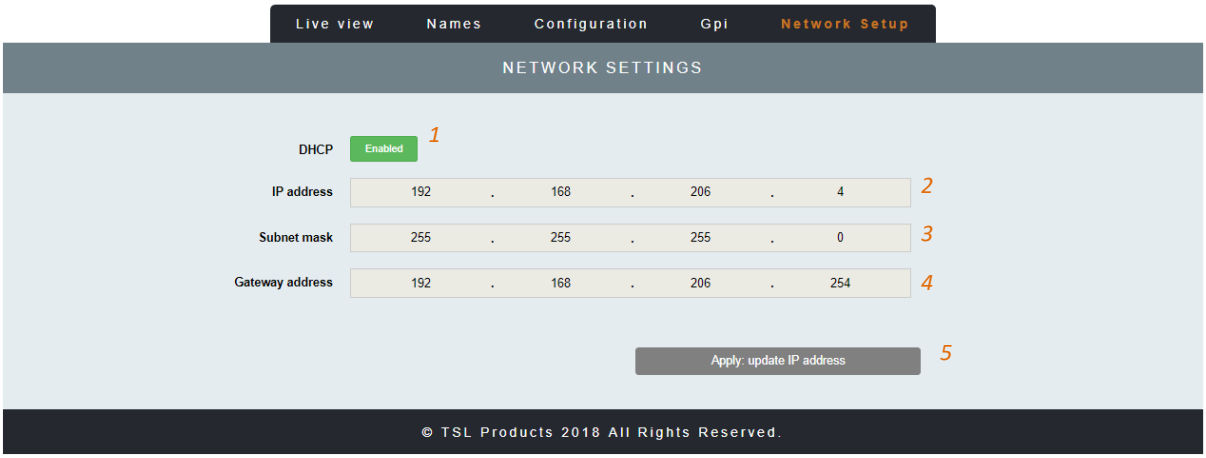
Element	Function	Notes
1	Mix Bank Identifier	Identifies one of the 16 Mix Banks (A-P)
2	Active Switch	Determines which MIX Banks are available for selection on the front panel of the MPA1-MIX-MADI.
3	Mix Bank Name	Friendly Name of MIX Bank*
4	Physical Input Identifier	Physical Input and Channel Number
5	Auto Naming Function	Not Supported
6	Friendly Name	Allows friendly names to be applied to MADI Channels (1-64) and Analogue Audio Channels

Clicking on the CONFIGURATION Tab of the MPA1-MIX-MADI Webpage displays the following:

Element	Function	Notes
1	Channel Knob Push	Enables/Disables 'Push to Mute' function of Channel Rotary Encoders on front panel of MPA1-MIX-MADI
2	Channel Knob Push and Rotate	Determines 'Push and Rotate' behaviour of Channel Rotary Encoders on the front panel of the MPA1-MIX-MADI. When set to Balance, the Audio Balance of the selected Audio Channel can be adjusted. When set to Mapping, the Physical Audio Channel assigned to the Mix Channel can be selected.
3	Channel Knob Push and Hold	Enables/Disables 'Push and Hold to Solo' function of Channel Rotary Encoders on front panel of MPA1-MIX-MADI
4	Group Select Knob Push	Enables/Disables Push to MUTE function of Headphone, Internal Loudspeakers and Balanced Line Outputs using Group Select Knob
5	Group Select Knob Rotate	Determines whether Group Select Knob is Enabled/Disabled. Selecting Group allows Mix Groups to be selected from the front panel of the MPA-MIX-MADI, whilst selecting Volume allows level adjustment on the Internal Loudspeakers and Balanced Line Level Outputs.
6	Gain Bar Display	Enables/Disables the Gain Bar Display from the front panel of the MPA1-MIX-MADI
7	Local Config	Enables/Disables configuration from the front panel of the MPA1-MIX-MADI

8	Line Output Level	Sets the Output Level of the Balanced Line Level Outputs on the MPA1-MIX-SDI
9	Line Output Mode	Determines behaviour of Balanced Line Level Outputs upon insertion of Headphones.
10	Fixed or Variable Line Output	Determines if Balanced Line Level Outputs provide a Fixed or Variable Output
11	Screen Brightness	Sets the Brightness Level of the front panel display
12	MADI Source	Determines if MADI Sources are derived from Coaxial BNC or Optical SFP Input.
13	Loudspeaker Mode	Determines the behaviour of Internal Loudspeakers upon insertion of Headphones

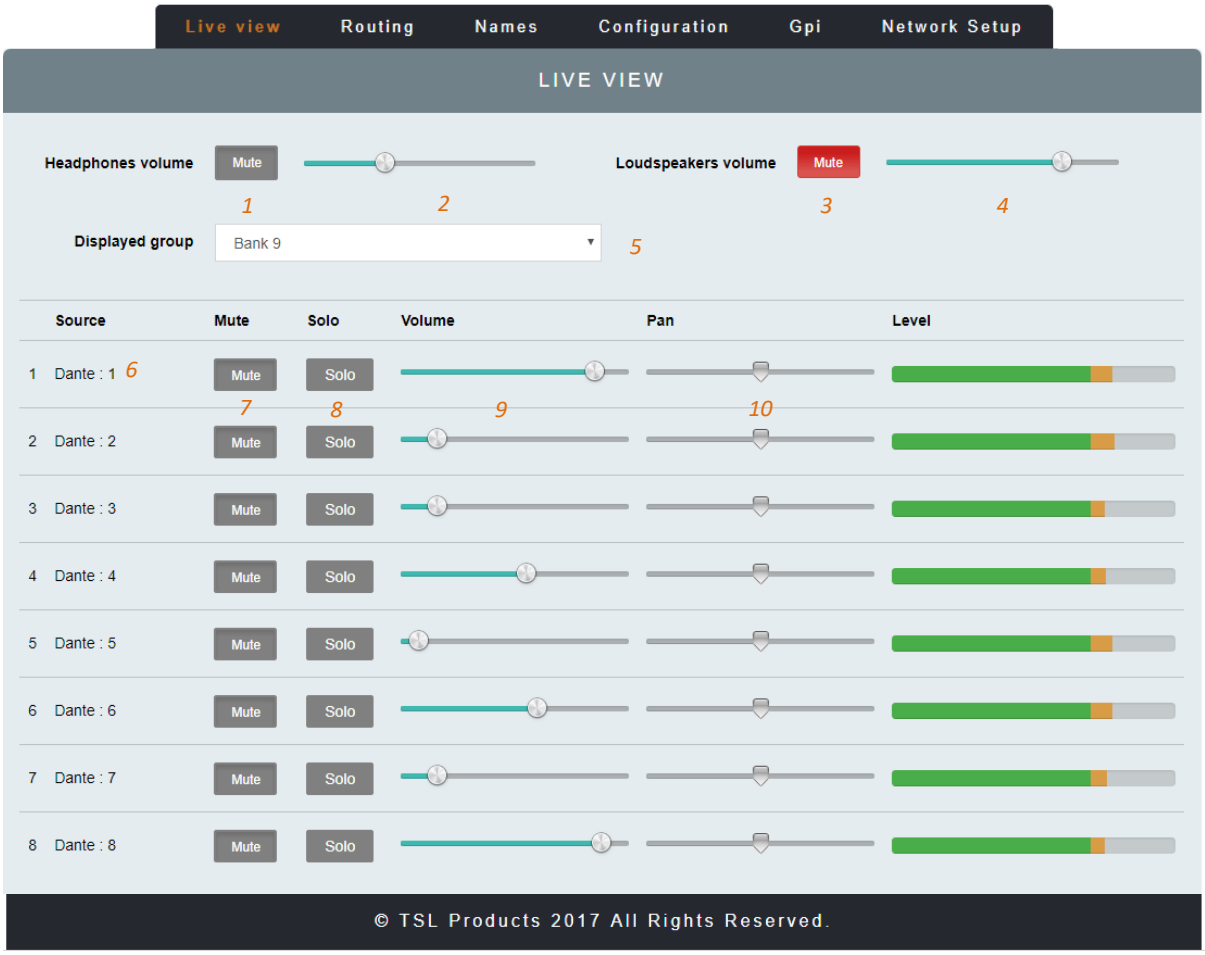
Clicking on the NETWORK SETUP Tab of the MPA1-MIX-MADI Webpage displays the following:



Element	Function	Notes
1	DHCP	Enables/Disables DHCP Mode
2	IP Address	Displays current IP Address and allows new IP Address to be entered.
3	Subnet Mask	Displays current Subnet Mask and allows new Subnet Mask to be entered.
4	Gateway Address	Displays current Gateway Address and allows new Gateway Address to be entered.
5	Apply IP Address	Button to apply IP, Subnet and Gateway addresses to the MPA1-MIX-MADI

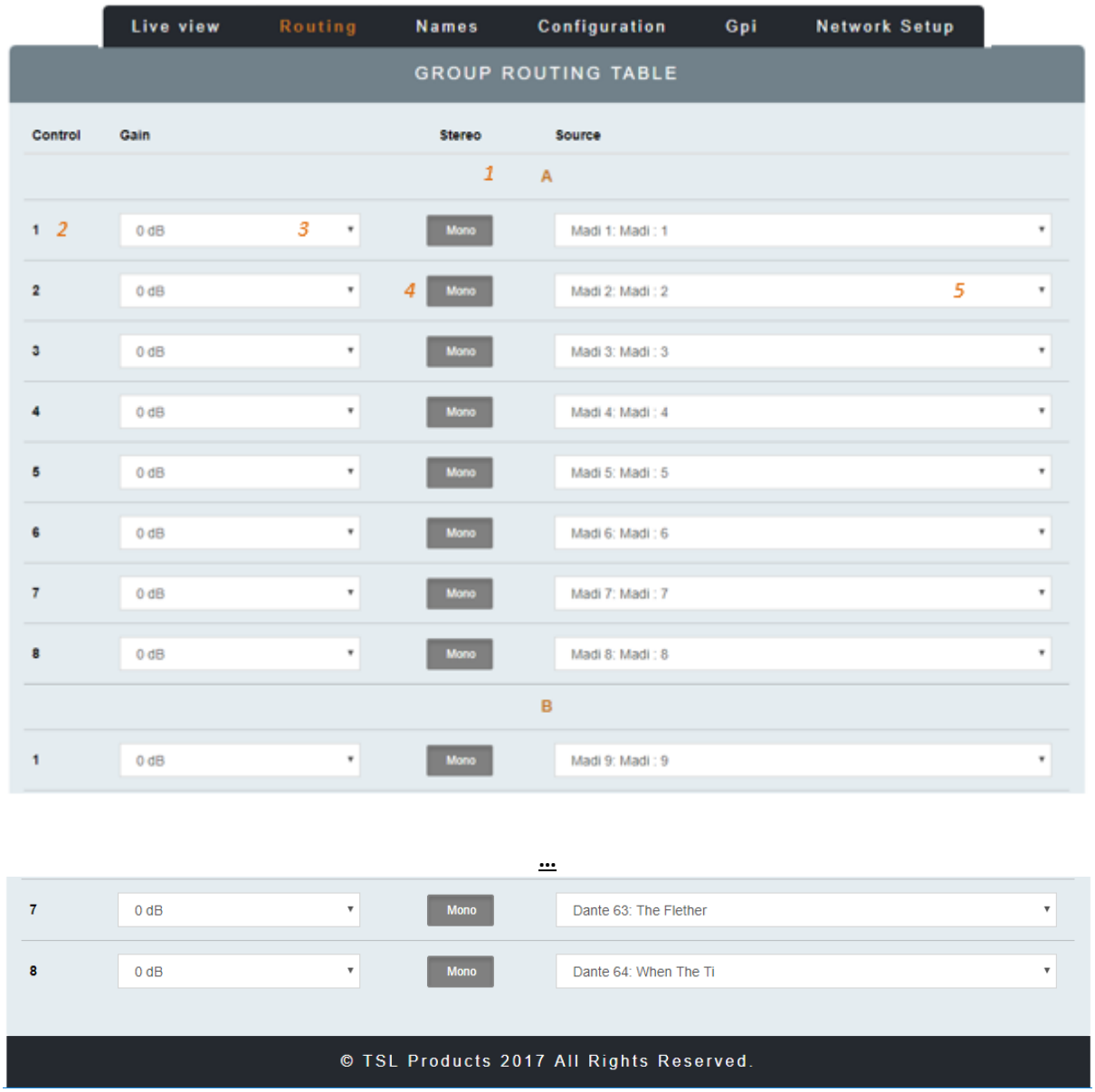
MPA1-MIX-DANTE Web Page

Clicking on the LIVE VIEW Tab of the MPA1-MIX-DANTE Webpage displays the following:



Element	Function	Notes
1	Switch to Mute Headphone Output	Red when Muted, Grey when Active
2	Headphone Output Level adjustment	Adjust as required
3	Switch to Mute the Loudspeaker Output	Red when Muted, Grey when Active
4	Loudspeaker Output Level adjustment	Adjust as required
5	Mix Bank Selection	Drop down list allowing recall of one of 16 Audio Mix Banks (A-P)
6	Source Name	Displays Source and Friendly Name*
7	Channel Mute	Mutes Selected Channel
8	Channel Solo	Places Selected Channel in Solo Mode (Click and Hold)
9	Channel Volume	Adjusts channel Volume within overall Mix
10	Channel Pan	Adjusts channel Pan within overall Mix
11	Audio Level Meters	Audio Level Display

Clicking on the ROUTING Tab of the MPA1-MIX-DANTE Webpage displays the following:



Element	Function	Notes
1	Mix Bank Identifier	Identifies one of the 16 Mix Banks (A-P)
2	Channel Number	Channel number of source contributing to Mix Bank (1-8)
3	Audio Channel Gain Preset	Allows +20dB, +10db, 0dB, -10dB or -20dB to be applied to Audio Channel Input
4	Stereo/Mono Switch	Switches Input Channel between Audio Channel and Audio Pair Mode
5	Audio Channel Selector	Selects Audio Channels contributing to chosen Mix Bank. MADI Channels 1-64 can be selected.

Clicking on the NAMES Tab of the MPA1-MIX-DANTE Webpage displays the following:

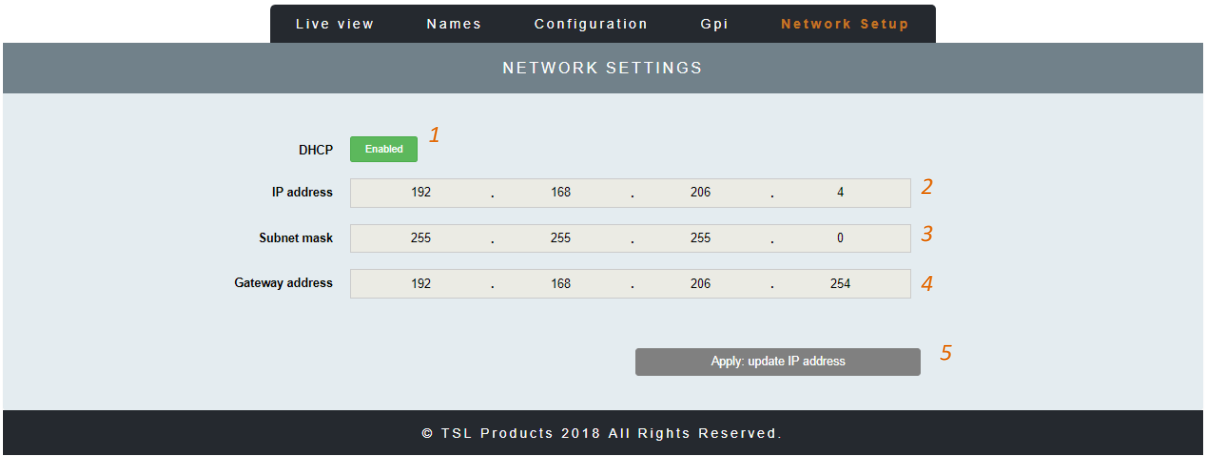
Element	Function	Notes
1	Mix Bank Identifier	Identifies one of the 16 Mix Banks (A-P)
2	Active Switch	Determines which MIX Banks are available for selection on the front panel of the MPA1-MIX-SDI.
3	Video Switch	Determines which SDI Video Source is displayed on the front panel, reclocked SDI Output and HDMI Output for each MIX Bank
4	Mix Bank Name	Friendly Name of MIX Bank*
5	Physical Input Identifier	Physical Input and Channel Number
6	Auto Naming Function	Not Supported
7	Friendly Name	Allows friendly names to be applied to MADI Channels (1-64) and Analogue Audio Channels

Clicking on the CONFIGURATION Tab of the MPA1-MIX-DANTE Webpage displays the following:

Element	Function	Notes
1	Channel Knob Push	Enables/Disables 'Push to Mute' function of Channel Rotary Encoders on front panel of MPA1-MIX-DANTE
2	Channel Knob Push and Rotate	Determines 'Push and Rotate' behaviour of Channel Rotary Encoders on the front panel of the MPA1-MIX-DANTE. When set to Balance, the Audio Balance of the selected Audio Channel can be adjusted. When set to Mapping, the Physical Audio Channel assigned to the Mix Channel can be selected.
3	Channel Knob Push and Hold	Enables/Disables 'Push and Hold to Solo' function of Channel Rotary Encoders on front panel of MPA1-MIX-DANTE
4	Group Select Knob Push	Enables/Disables Push to MUTE function of Headphone, Internal Loudspeakers and Balanced Line Outputs using Group Select Knob
5	Group Select Knob Rotate	Determines whether Group Select Knob is Enabled/Disabled. Selecting Group allows Mix Groups to be selected from the front panel of the MPA-MIX-DANTE, whilst selecting Volume allows level adjustment on the Internal Loudspeakers and Balanced Line Level Outputs.
6	Gain Bar Display	Enables/Disables the Gain Bar Display from the front panel of the MPA1-MIX-DANTE
7	Local Config	Enables/Disables configuration from the front panel of the MPA1-MIX-DANTE

8	Line Output Level	Sets the Output Level of the Balanced Line Level Outputs on the MPA1-MIX-DANTE
9	Line Output Mode	Determines behaviour of Balanced Line Level Outputs upon insertion of Headphones.
10	Screen Brightness	Sets the Brightness Level of the front panel display
11	MADI Source	Determines if MADI Sources are derived from Coaxial BNC or Optical SFP Input.
12	Loudspeaker Mode	Determines the behaviour of Internal Loudspeakers upon insertion of Headphones

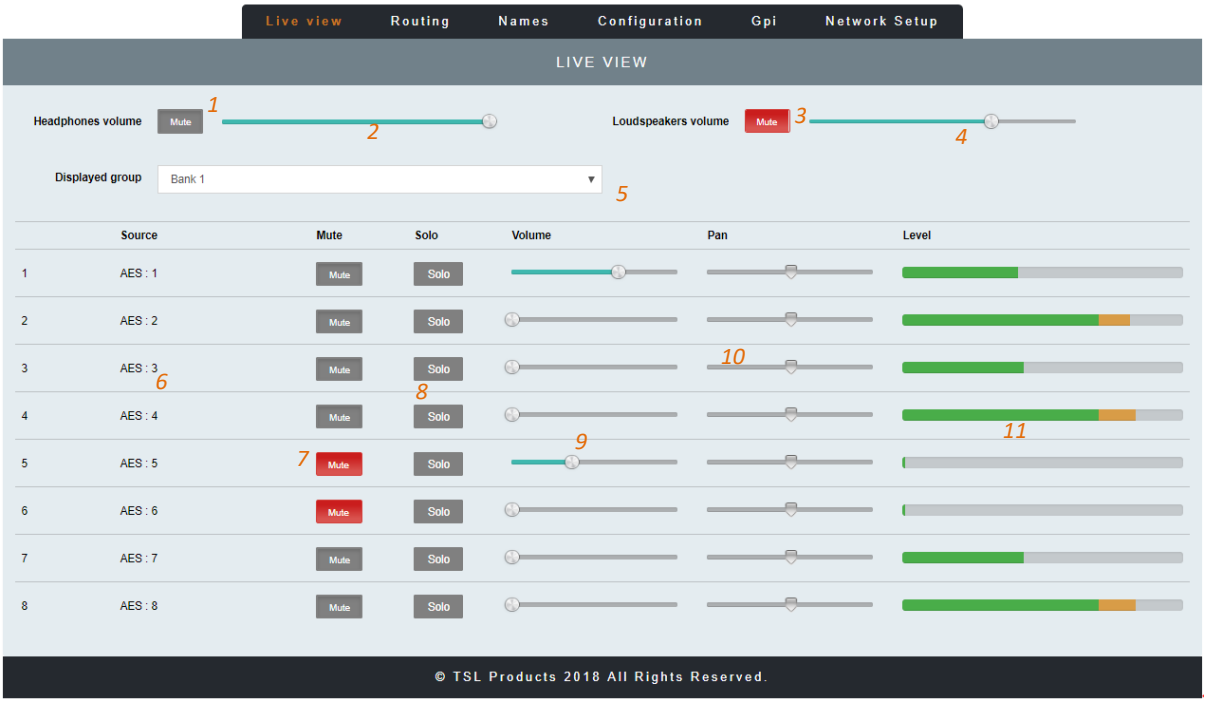
Clicking on the NETWORK SETUP Tab of the MPA1-MIX-DANTE Webpage displays the following:



Element	Function	Notes
1	DHCP	Enables/Disables DHCP Mode
2	IP Address	Displays current IP Address and allows new IP Address to be entered.
3	Subnet Mask	Displays current Subnet Mask and allows new Subnet Mask to be entered.
4	Gateway Address	Displays current Gateway Address and allows new Gateway Address to be entered.
5	Apply IP Address	Button to apply IP, Subnet and Gateway addresses to the MPA1-MIX-SDI

MPA1-MIX-8 Web Page

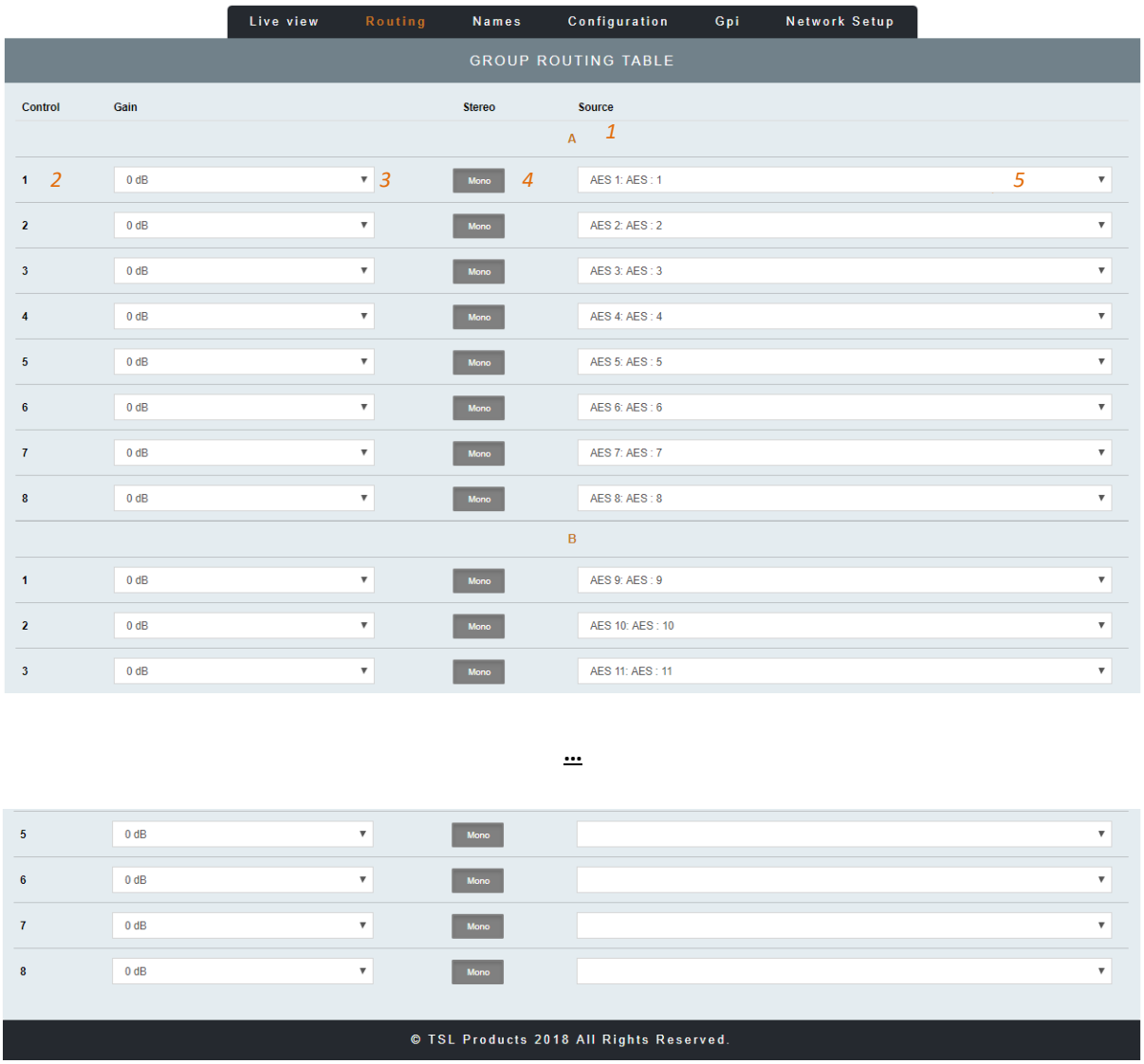
Clicking on the LIVE VIEW Tab of the MPA1-MIX-8 Webpage displays the following:



Element	Function	Notes
1	Switch to Mute Headphone Output	Red when Muted, Grey when Active
2	Headphone Output Level adjustment	Adjust as required
3	Switch to Mute the Loudspeaker Output	Red when Muted, Grey when Active
4	Loudspeaker Output Level adjustment	Adjust as required
5	Mix Bank Selection	Drop down list allowing recall of one of 16 Audio Mix Banks (A-P)
6	Source Name	Displays Source and Friendly Name*
7	Channel Mute	Mutes Selected Channel
8	Channel Solo	Places Selected Channel in Solo Mode (Click and Hold)
9	Channel Volume	Adjusts channel Volume within overall Mix
10	Channel Pan	Adjusts channel Pan within overall Mix
11	Audio Level Meters	Audio Level Display

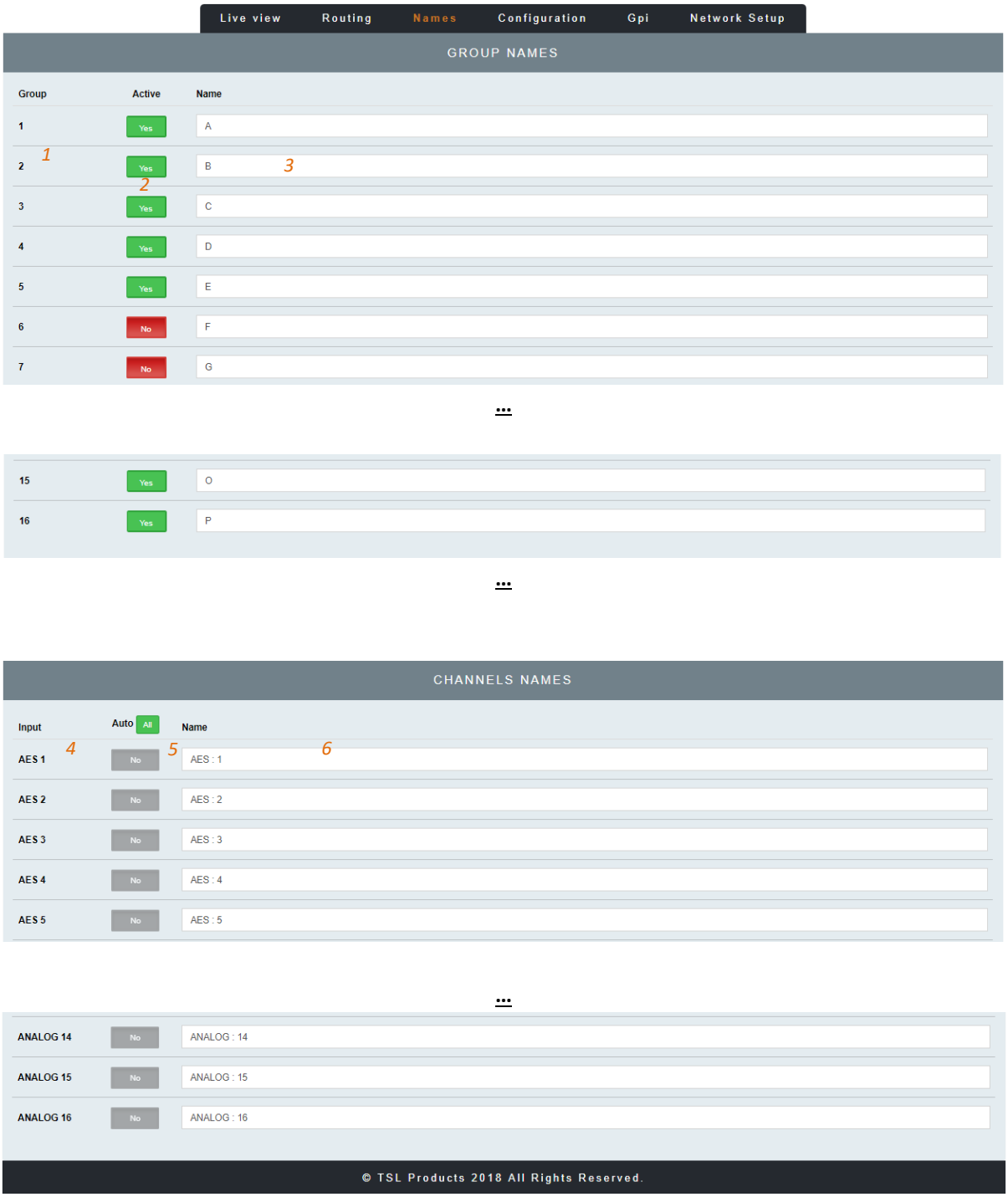
* Friendly Names can be set in the NAMES Tab

Clicking on the ROUTING Tab of the MPA1-MIX-8 Webpage displays the following:



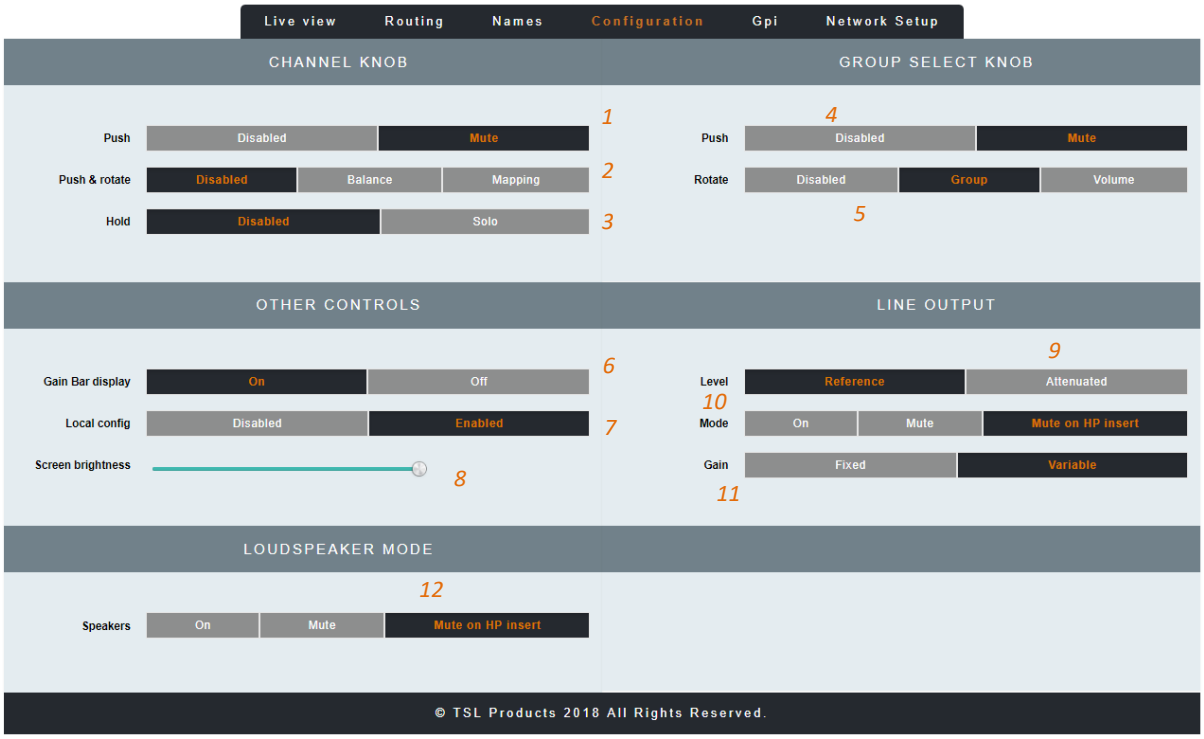
Element	Function	Notes
1	Mix Bank Identifier	Identifies one of the 16 Mix Banks (A-P)
2	Channel Number	Channel number of source contributing to Mix Bank (1-8)
3	Audio Channel Gain Preset	Allows +20dB, +10db, 0dB, -10dB or -20dB to be applied to Audio Channel Input
4	Stereo/Mono Switch	Switches Input Channel between Audio Channel and Audio Pair Mode
5	Audio Channel Selector	Selects Audio Channels contributing to chosen Mix Bank. AES and Analogue Inputs can be selected.

Clicking on the NAMES Tab of the MPA1-MIX-8 Webpage displays the following:



Element	Function	Notes
1	Mix Bank Identifier	Identifies one of the 16 Mix Banks (A-P)
2	Active Switch	Determines which MIX Banks are available for selection on the front panel of the MPA1-MIX-8.
3	Mix Bank Name	Friendly Name of MIX Bank*
4	Physical Input Identifier	Physical Input and Channel Number
5	Auto Naming Function	Not Supported
6	Friendly Name	Allows friendly names to be applied to AES and Analogue Audio Channels

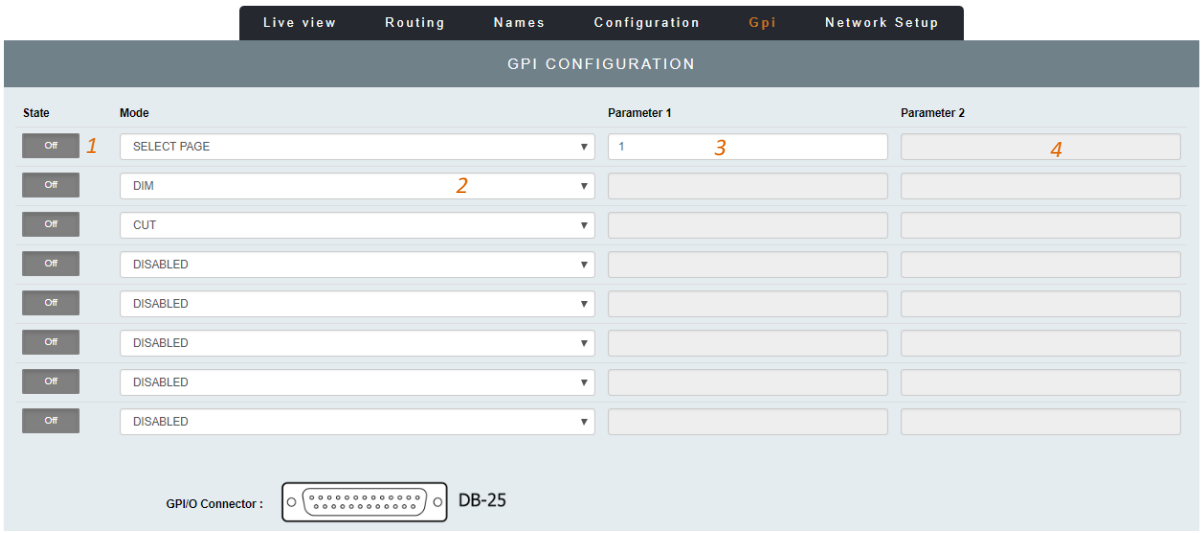
Clicking on the CONFIGURATION Tab of the MPA1-MIX-8 Webpage displays the following:



Element	Function	Notes
1	Channel Knob Push	Enables/Disables 'Push to Mute' function of Channel Rotary Encoders on front panel of MPA1-MIX-8
2	Channel Knob Push and Rotate	Determines 'Push and Rotate' behaviour of Channel Rotary Encoders on the front panel of the MPA1-MIX-8. When set to Balance, the Audio Balance of the selected Audio Channel can be adjusted. When set to Mapping, the Physical Audio Channel assigned to the Mix Channel can be selected.
3	Channel Knob Push and Hold	Enables/Disables 'Push and Hold to Solo' function of Channel Rotary Encoders on front panel of MPA1-MIX-8
4	Group Select Knob Push	When set to MUTE, pushing the Group Select Knob mutes the Loudspeakers and/or Balance Line Level Outputs
5	Group Select Knob Rotate	Allows the Group Select Knob to select MIX Groups, Adjust Output Volume or to have no function.
6	Gain Bar Display	Allows Channel Gain Bars to be displayed on the front panel
7	Local Config	Enables/Disables configuration from the front panel of the MPA1-MIX-SDI
8	Screen Brightness	Sets the Brightness Level of the front panel display

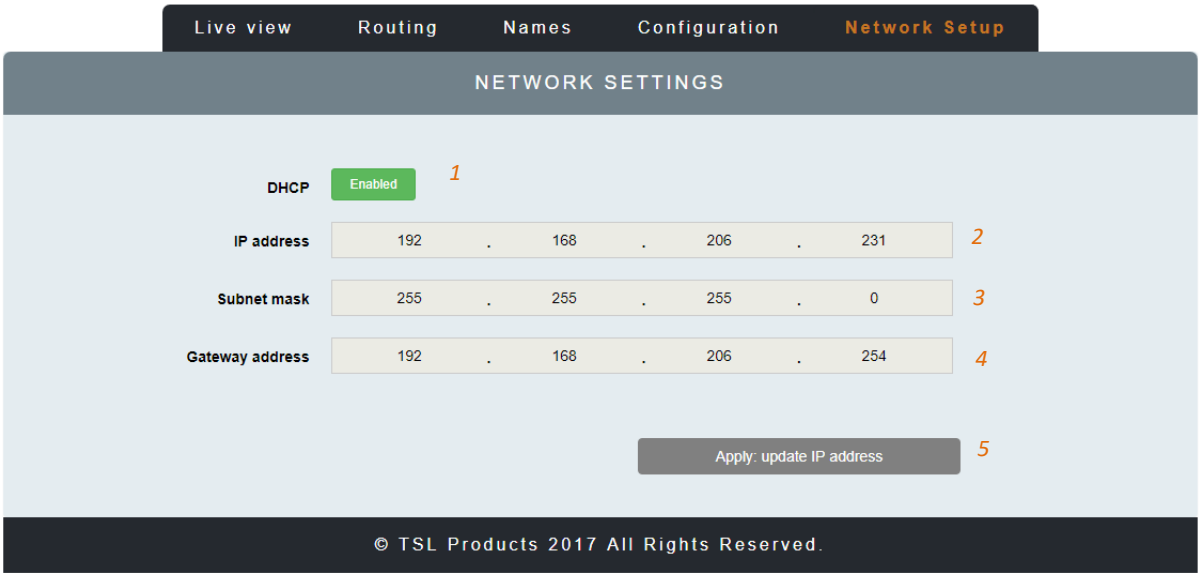
9	Line Output Level	Sets the Output Level of the Balanced Line Level Outputs on the MPA1-MIX-8
10	Line Output Mode	Determines behaviour of Balanced Line Level Outputs upon insertion of Headphones.
11	Line Output Gain	Allows the Balanced Line Level Outputs on the MPA1 MIX 8 to provide a fixed or variable Output
12	Loudspeaker Mode	Determines the behaviour of Internal Loudspeakers upon insertion of Headphones

Clicking on the GPI Tab of the MPA1-MIX-8 Webpage displays the following:



Element	Function	Notes
1	GPI Status/Test Switch	Green when GPI is active, Grey when inactive. Enables GPI In MODE to be tested.
2	Mode	Drop Down Menu enabling desired GPI action to be selected
3	Parameter 1	Allows first parameter of GPI Mode to be set where applicable.
4	Parameter 2	Allows second parameter of GPI Mode to be set where applicable

Clicking on the NETWORK SETTINGS Tab of the MPA1-MIX-8 Webpage displays the following:



Element	Function	Notes
1	DHCP	Enables/Disables DHCP Mode
2	IP Address	Displays current IP Address and allows new IP Address to be entered.
3	Subnet Mask	Displays current Subnet Mask and allows new Subnet Mask to be entered.
4	Gateway Address	Displays current Gateway Address and allows new Gateway Address to be entered.
5	Apply IP Address	Button to apply IP, Subnet and Gateway addresses to the MPA1-MIX-SDI

Operation

The MPA1 Range has been designed to provide quick and easy selection of any desired audio source in an intuitive manner that requires little in the way of training.

One of the key benefits of the MPA1 is the ability to personalise or tailor its configuration and behaviour to suit a specific workflow, application or environment If the behaviour or configuration of your MPA1 is not as expected or required, please check the configuration and settings made in the webpage belonging to your MPA1.

All these settings can be made via the webpage of your MPA1 (see appropriate chapter earlier in this manual).

The following chapters present an operational overview of each MPA1 variant.

MPA1-SOLO-SDI Operation

The front panel of the MPA1-SOLO-SDI is equipped with four rotary controllers as follows:
PROGRAM

Encoder	Function	Notes
1	Headphone Volume	Rotate to adjust Headphone level as required. PUSH to MUTE/UNMUTE currently selected audio source.
2	Output Volume	Rotate to adjust the Audio Level of the Internal Loudspeakers and/or Balanced Analogue Audio Outputs. PUSH to MUTE/UNMUTE Internal Loudspeakers and/or Balanced Analogue Audio Outputs. NOTE: The exact behaviour of this control can be modified using the MPA1-SOLO-SDI Webpage, see Settings 2, 4 and 5 on Page **27** of this manual for further information.
3	Select/Menu	Rotate to Scroll through SDI Embedded Audio Channels and/or AES and Analogue Audio Channels. PUSH to switch between Stereo and Mono Audio Monitoring. NOTE: Audio Sources available for selection are determined by the settings found in section 1 of the MPA1-SOLO-SDI Webpage. See Page **26** of this manual for further information. The Select Menu Encoder is also used to access the Settings Menu of the MPA-SOLO-SDI. Further information can be found in the **Initial Setup** chapter found on Page **23** of this manual.
4	Balance/Pan and Display Mode	Provides Balance Control of Stereo Audio Sources and Pan Control of Mono Audio Sources. Setting affects Headphone, Internal Loudspeakers and Balanced Analogue Audio Outputs. PUSH to Switch between Multiple Audio Meter, Dual Audio Meter with Phase Metering and Video Display modes.

MPA1-SOLO-MADI Operation

The front panel of the MPA1-SOLO-MADI is equipped with four rotary controllers as follows:

Encoder	Function	Notes
1	Headphone Volume	Rotate to adjust Headphone level as required. PUSH to MUTE/UNMUTE currently selected audio source.
2	Output Volume	Rotate to adjust the Audio Level of the Internal Loudspeakers and/or Balanced Analogue Audio Outputs. PUSH to MUTE/UNMUTE Internal Loudspeakers and/or Balanced Analogue Audio Outputs. NOTE: The exact behaviour of this control can be modified using the MPA1-SOLO-MADI Webpage, see Settings 2,4 and 5 on Page **32** of this manual for further information.
3	Select/Menu	Rotate to Scroll through MADI Audio Channels and/or Analogue Audio Channels. PUSH to switch between Stereo and Mono Audio Monitoring. The Select Menu Encoder is also used to access the Settings Menu of the MPA-SOLO-MADI. Further information can be found in the **Initial Setup** chapter found on Page **23** of this manual.
4	Balance/Pan and Display Mode	Provides Balance Control of Stereo Audio Sources and Pan Control of Mono Audio Sources. Setting affects Headphone, Internal Loudspeakers and Balanced Analogue Audio Outputs. PUSH to toggle between Multiple Audio Meter and Dual Audio Meter with Phase Metering modes.

MPA1-SOLO-DANTE Operation

The front panel of the MPA1-SOLO-DANTE is equipped with four rotary controllers as follows:

Encoder	Function	Notes
1	Headphone Volume	Rotate to adjust Headphone level as required. PUSH to MUTE/UNMUTE currently selected audio source.
2	Output Volume	Rotate to adjust the Audio Level of the Internal Loudspeakers and/or Balanced Analogue Audio Outputs. PUSH to MUTE/UNMUTE Internal Loudspeakers and/or Balanced Analogue Audio Outputs. NOTE: The exact behaviour of this control can be modified using the MPA1-SOLO-DANTE Webpage, see Settings 2,4 and 5 on Page 3**7** of this manual for further information.
3	Select/Menu	Rotate to Scroll through DANTE and/or MADI Audio Channels. PUSH to switch between Stereo and Mono Audio Monitoring. The Select Menu Encoder is also used to access the Settings Menu of the MPA-SOLO-DANTE. Further information can be found in the **Initial Setup** chapter found on Page **23** of this manual.
4	Balance/Pan and Display Mode	Provides Balance Control of Stereo Audio Sources and Pan Control of Mono Audio Sources. Setting affects Headphone, Internal Loudspeakers and Balanced Analogue Audio Outputs. PUSH to toggle between Multiple Audio Meter and Dual Audio Meter with Phase Metering modes.

MPA1-SOLO-8 Operation

The front panel of the MPA1-SOLO-8 is equipped with four rotary controllers as follows:

Encoder	Function	Notes
1	Headphone Volume	Rotate to adjust Headphone level as required. PUSH to MUTE/UNMUTE currently selected audio source.
2	Output Volume	Rotate to adjust the Audio Level of the Internal Loudspeakers and/or Balanced Analogue Audio Outputs. PUSH to MUTE/UNMUTE Internal Loudspeakers and/or Balanced Analogue Audio Outputs. NOTE: The exact behaviour of this control can be modified using the MPA1-SOLO-8 Webpage, see Settings 2,4 and 5 on Page **42** of this manual for further information.
3	Select/Menu	Rotate to Scroll through AES and Analogue Audio Channels. PUSH to switch between Stereo and Mono Audio Monitoring. The Select Menu Encoder is also used to access the Settings Menu of the MPA-SOLO-8. Further information can be found in the **Initial Setup** chapter found on Page **23** of this manual.
4	Balance/Pan and Display Mode	Provides Balance Control of Stereo Audio Sources and Pan Control of Mono Audio Sources. Setting affects Headphone, Internal Loudspeakers and Balanced Analogue Audio Outputs. PUSH to toggle between Multiple Audio Meter and Dual Audio Meter with Phase Metering modes.

MPA1-MIX-SDI Operation

The front panel of the MPA1-MIX-SDI is equipped with ten rotary controllers as follows:

Encoder	Function	Notes
1-8	Audio Level	Rotate to adjust relative contribution of Sources 1-8 to Stereo Monitoring Mix. *NOTE: Sources available are determined by the currently selected Mix Bank (A-P) and the contributing audio channels for each Mix Bank as set in the Routing Tab of the MPA-MIX-SDI. See Page **46** of this manual for further information.* PUSH to MUTE/UNMUTE contribution of Sources 1-8 to Stereo Mix. *NOTE: PUSH to MUTE/UNMUTE functionality can be disabled by Setting 1 of the MPA-MIX-SDI Webpage, see Page **49** of the manual for further information.* PUSH and ROTATE to adjust Balance of selected source **or** to map alternate audio source to encoder. *NOTE: PUSH and ROTATE functionality is determined by Setting 2 on the MPA-MIX-SDI Webpage, see Page **49** of the manual for further information* PUSH and HOLD to enable SOLO Monitoring of selected source. *NOTE: PUSH and HOLD to enable SOLO Monitoring can be disabled using Setting 3 of the MPA-MIX-SDI Webpage, see Page **49** of the manual for further information.*
9	Headphone Volume	Rotate to adjust Headphone level as required. PUSH to MUTE/UNMUTE entire Stereo Monitoring Mix from the Headphone Output.
10	Select/Menu	Rotate to Scroll through Mix Banks A-P **or** to adjust Level of Stereo Monitoring Mix. *NOTE: The behaviour of the Select/Menu encoder is determined by determined by Settings 4 and 5 on the MPA-MIX-SDI Webpage, see Page **49** of the manual for further information* PUSH to MUTE/UNMUTE Internal Loudspeakers and Balanced Analogue Audio Outputs.

		The Select Menu Encoder is also used to access the Settings Menu of the MPA-MIX-SDI. Further information can be found in the **Initial Setup** chapter found on Page **23** of this manual.

MPA1-MIX-MADI Operation

The front panel of the MPA1-MIX-MADI is equipped with ten rotary controllers as follows:

Encoder	Function	Notes
1-8	Audio Level	Rotate to adjust relative contribution of Sources 1-8 to Stereo Monitoring Mix. *NOTE: Sources available are determined by the currently selected Mix Bank (A-P) and the contributing audio channels for each Mix Bank as set in the Routing Tab of the MPA-MIX-MADI. See Page **54** of this manual for further information.* PUSH to MUTE/UNMUTE contribution of Sources 1-8 to Stereo Mix. *NOTE: PUSH to MUTE/UNMUTE functionality can be disabled by Setting 1 of the MPA-MIX-MADI Webpage, see Page **57** of the manual for further information.* PUSH and ROTATE to adjust Balance of selected source **or** to map alternate audio source to encoder. *NOTE: PUSH and ROTATE functionality is determined by Setting 2 on the MPA-MIX-MADI Webpage, see Page **57** of the manual for further information* PUSH and HOLD to enable SOLO Monitoring of selected source. *NOTE: PUSH and HOLD to enable SOLO Monitoring can be disabled using Setting 3 of the MPA-MIX-MADI Webpage, see Page **35** of the manual for further information.*
9	Headphone Volume	Rotate to adjust Headphone level as required. PUSH to MUTE/UNMUTE entire Stereo Monitoring Mix from the Headphone Output.
10	Select/Menu	Rotate to Scroll through Mix Banks A-P **or** to adjust Level of Stereo Monitoring Mix. *NOTE: The behaviour of the Select/Menu encoder is determined by* PUSH to MUTE/UNMUTE Internal Loudspeakers and Balanced Analogue Audio Outputs. The Select Menu Encoder is also used to access the Settings Menu of the MPA-MIX-MADI. Further information can be found in the **Initial Setup** chapter found on Page **23** of this manual.

MPA1-MIX-DANTE Operation

The front panel of the MPA1-MIX-DANTE is equipped with ten rotary controllers as follows:

Encoder	Function	Notes
1-8	Audio Level	Rotate to adjust relative contribution of Sources 1-8 to Stereo Monitoring Mix. *NOTE: Sources available are determined by the currently selected Mix Bank (A-P) and the contributing audio channels for each Mix Bank as set in the Routing Tab of the MPA-MIX-SDI. See Page **61** of this manual for further information.* PUSH to MUTE/UNMUTE contribution of Sources 1-8 to Stereo Mix. *NOTE: PUSH to MUTE/UNMUTE functionality can be disabled by Setting 1 of the MPA-MIX-SDI Webpage, see Page **65** of the manual for further information.* PUSH and ROTATE to adjust Balance of selected source **or** to map alternate audio source to encoder. *NOTE: PUSH and ROTATE functionality is determined by Setting 2 on the MPA-MIX-SDI Webpage, see Page **65** of the manual for further information* PUSH and HOLD to enable SOLO Monitoring of selected source. *NOTE: PUSH and HOLD to enable SOLO Monitoring can be disabled using Setting 3 of the MPA-MIX-DANTE Webpage, see Page **65** of the manual for further information.*
9	Headphone Volume	Rotate to adjust Headphone level as required. PUSH to MUTE/UNMUTE entire Stereo Monitoring Mix from the Headphone Output.
10	Select/Menu	Rotate to Scroll through Mix Banks A-P **or** to adjust Level of Stereo Monitoring Mix. *NOTE: The behaviour of the Select/Menu encoder is determined by* PUSH to MUTE/UNMUTE Internal Loudspeakers and Balanced Analogue Audio Outputs. The Select Menu Encoder is also used to access the Settings Menu of the MPA-MIX-SDI. Further information can be found in the **Initial Setup** chapter found on Page **23** of this manual.

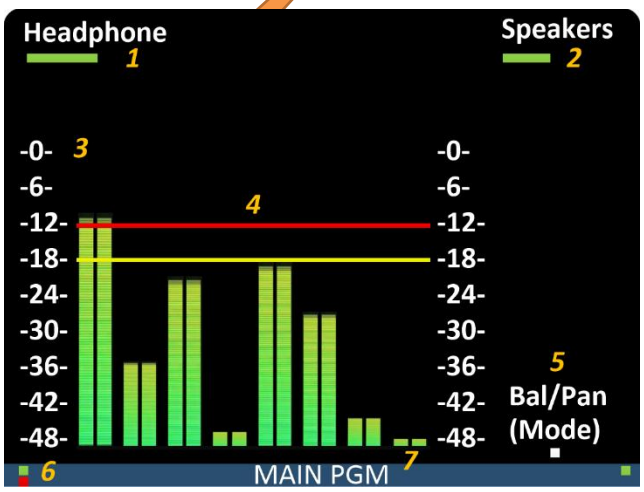
MPA1-MIX-8 Operation

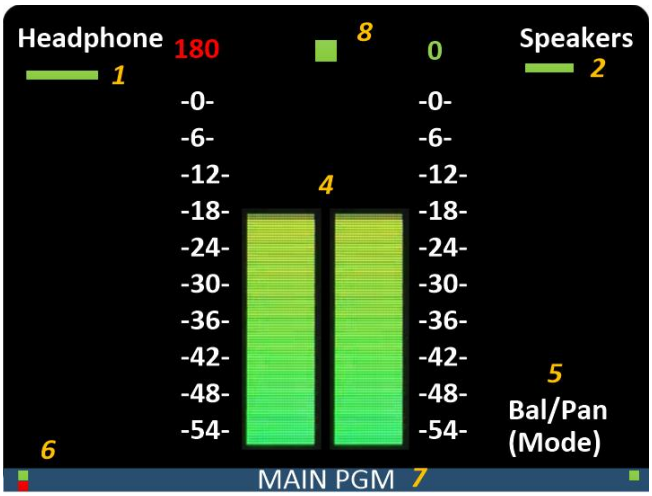
The front panel of the MPA1-MIX-MADI is equipped with ten rotary controllers as follows:

Encoder	Function	Notes
1-8	Audio Level	Rotate to adjust relative contribution of Sources 1-8 to Stereo Monitoring Mix. *NOTE: Sources available are determined by the currently selected Mix Bank (A-P) and the contributing audio channels for each Mix Bank as set in the Routing Tab of the MPA1-MIX-8. See Page **69** of this manual for further information.* PUSH to MUTE/UNMUTE contribution of Sources 1-8 to Stereo Mix. *NOTE: PUSH to MUTE/UNMUTE functionality can be disabled by Setting 1 of the MPA-MIX-8 Webpage, see Page **72** of the manual for further information.* PUSH and ROTATE to adjust Balance of selected source **or** to map alternate audio source to encoder. *NOTE: PUSH and ROTATE functionality is determined by Setting 2 on the MPA-MIX-8 Webpage, see Page **72** of the manual for further information* PUSH and HOLD to enable SOLO Monitoring of selected source. *NOTE: PUSH and HOLD to enable SOLO Monitoring can be disabled using Setting 3 of the MPA-MIX-8 Webpage, see Page **72** of the manual for further information.*
9	Headphone Volume	Rotate to adjust Headphone level as required. PUSH to MUTE/UNMUTE entire Stereo Monitoring Mix from the Headphone Output.
10	Select/Menu	Rotate to Scroll through Mix Banks A-P **or** to adjust Level of Stereo Monitoring Mix. *NOTE: The behaviour of the Select/Menu encoder is determined by* PUSH to MUTE/UNMUTE Internal Loudspeakers and Balanced Analogue Audio Outputs.

		The Select Menu Encoder is also used to access the Settings Menu of the MPA-MIX-8. Further information can be found in the **Initial Setup** chapter found on Page **23** of this manual.

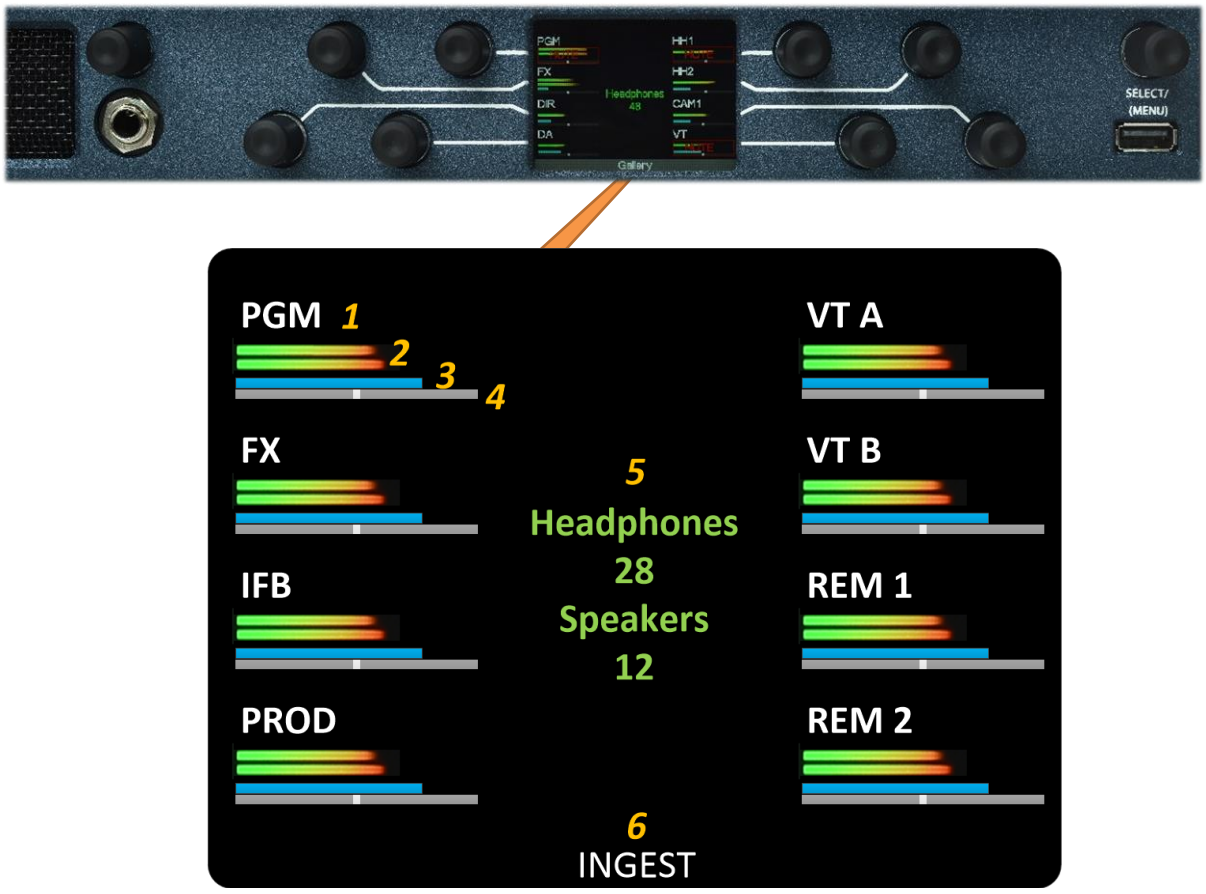
MPA1-SOLO-SDI Front Panel Display





Display	Function	Notes
1	Headphone Level	Display showing level of Headphone Output
2	Speakers	Display showing level of Internal Loudspeaker and Balanced Line Level Output output.
3	Audio Meter Scale	Audio Meter Scale in dBFS
4	Audio Level Display	*See settings 7 and 8 on Page **27** of this manual for further information on setting Warning and Alarm Thresholds.*
5	Balance/Pan Display	The relative contribution to the Left and Right channels of the Stereo Monitoring Mix is identified by the position of the Balance/Pan
6	Status Indicators	Status indicators showing presence of valid input sources
7	Channel Name	*See Page **26** of this manual for further information on how to set Channel Names.*
8	Phase Meter	Audio Phase Meter for currently selected audio pair

MPA1-MIX-SDI Front Panel Display

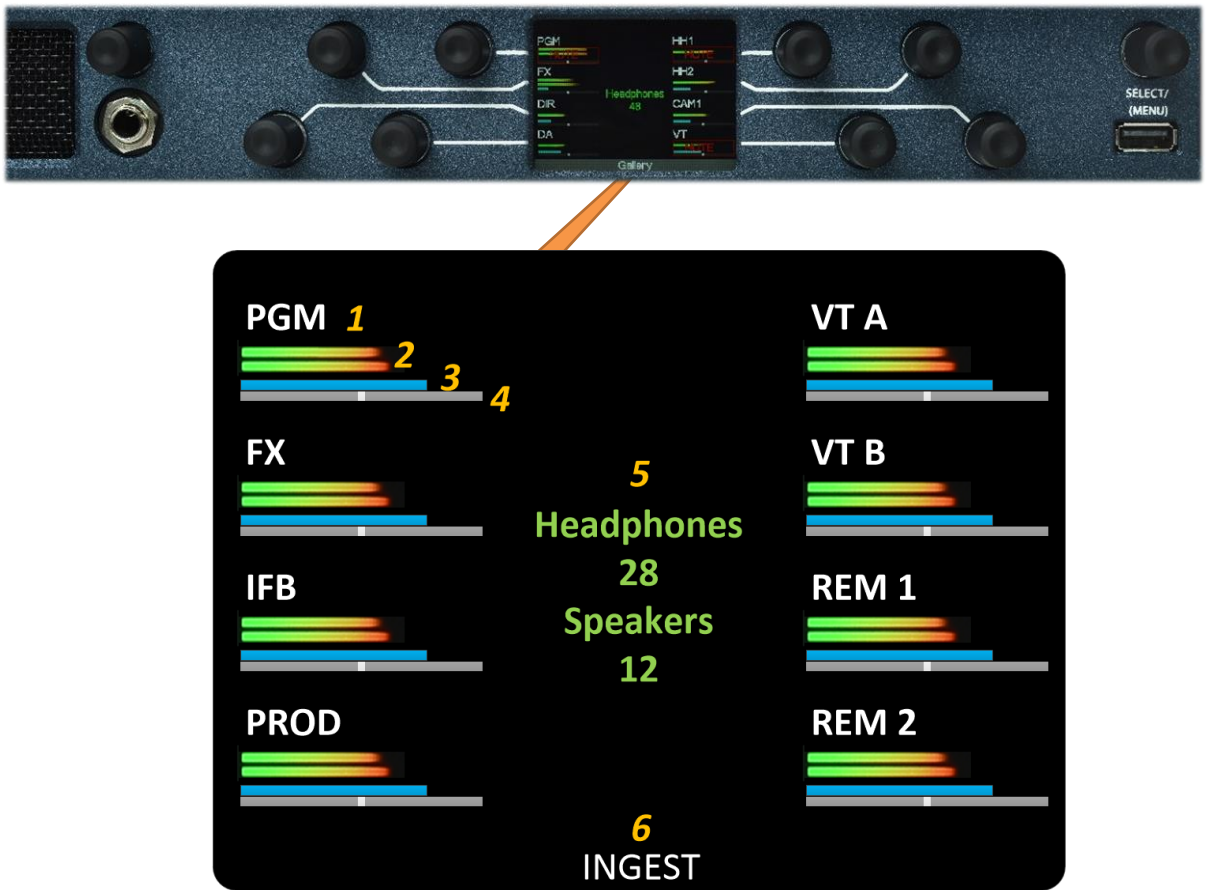


Display	Function	Notes
1	Channel Label	Label displaying Channel friendly name. *NOTE: Friendly names can be entered in the Channel Names section displayed within the Names Tab of the MPA1-MIX-SDI Webpage. See Page **47** of this manual for further information.*
2	Audio Level Meters	Displays Audio Level of associated Source Channel
3	Gain Bar Display	Level of Channel contribution to Stereo Monitoring Mix. *NOTE: Inclusion of the Gain Bar Display is determined by setting 6 in the Configuration Tab of the MPA-MIX-SDI Webpage. See Page **49** of this manual for further information.*
4	Balance/Pan Display	The relative contribution to the Left and Right channels of the Stereo Monitoring Mix is identified by the position of the Balance/Pan
5	Headphone and Speakers Level Displays	Display of current Headphone and Loudspeaker Output Level settings (0 Min – 100 Max).
6	Mix Bank Name	Label displaying friendly name of currently selected Mix Bank. NOTE: *Friendly names can be entered in the Group Names section displayed within the Names Tab of the MPA1-MIX-SDI Webpage. See Page **47** of this manual for further information*

MPA1-SOLO-MADI Front Panel Display

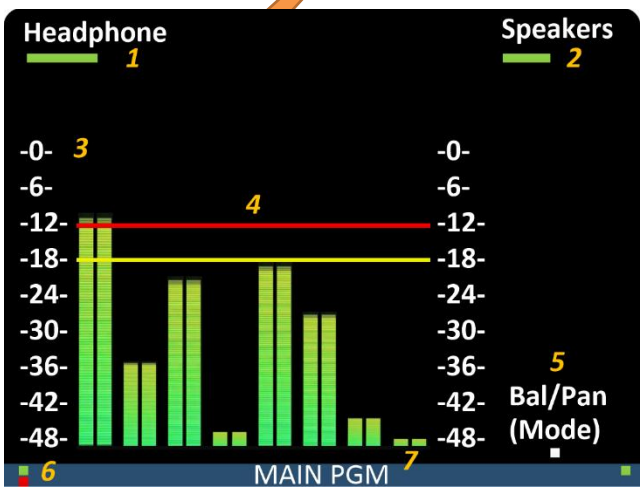
Display	Function	Notes
1	Headphone Level	Display showing level of Headphone Output
2	Speakers	Display showing level of Internal Loudspeaker and Balanced Line Level Output output.
3	Audio Meter Scale	Audio Meter Scale in dBFS
4	Audio Level Display	*See settings 8 and 9 on Page **32** of this manual for further information on setting Warning and Alarm Thresholds.*
5	Balance/Pan Display	The relative contribution to the Left and Right channels of the Stereo Monitoring Mix is identified by the position of the Balance/Pan
6	Status Indicators	Status indicators showing presence of valid input sources
7	Channel Name	*See Page **31** of this manual for further information on how to set Channel Names.*
8	Phase Meter	Audio Phase Meter for currently selected audio pair

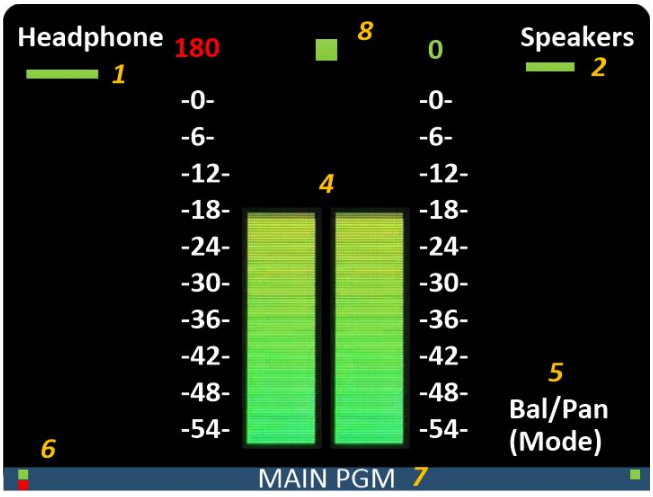
MPA1-MIX-MADI Front Panel Display



Display	Function	Notes
1	Channel Label	Label displaying Channel friendly name. *NOTE: Friendly names can be entered in the Channel Names section displayed within the Names Tab of the MPA1-MIX-MADI Webpage. See Page **55** of this manual for further information.*
2	Audio Level Meters	Displays Audio Level of associated Source Channel
3	Gain Bar Display	Level of Channel contribution to Stereo Monitoring Mix. *NOTE: Inclusion of the Gain Bar Display is determined by setting 6 in the Configuration Tab of the MPA-MIX-MADI Webpage. See Page **57** of this manual for further information.*
4	Balance/Pan Display	The relative contribution to the Left and Right channels of the Stereo Monitoring Mix is identified by the position of the Balance/Pan
5	Headphone and Speakers Level Displays	Display of current Headphone and Loudspeaker Output Level settings (0 Min – 100 Max).
6	Mix Bank Name	Label displaying friendly name of currently selected Mix Bank. NOTE: *Friendly names can be entered in the Group Names section displayed within the Names Tab of the MPA1-MIX-MADI Webpage. See Page **55** of this manual for further information*

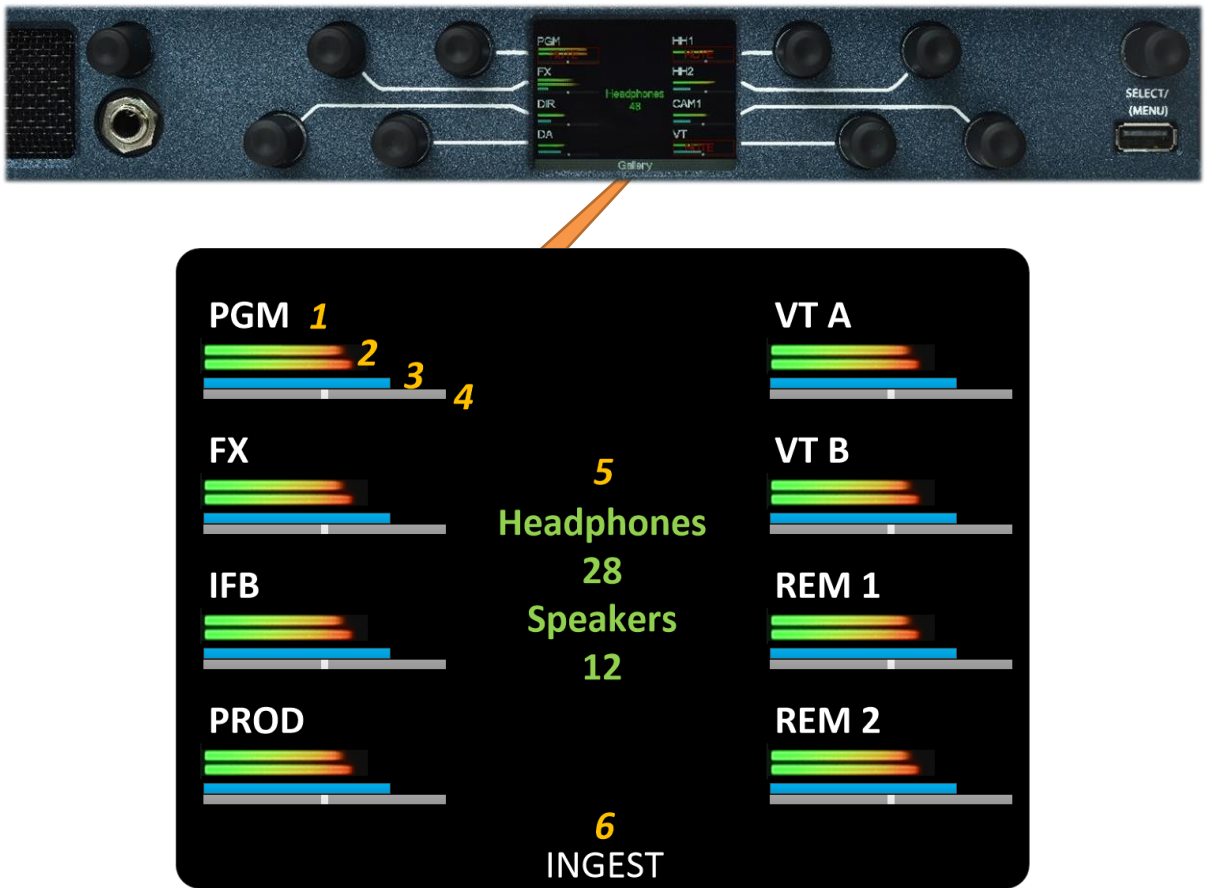
MPA1-SOLO-DANTE Front Panel Display





Display	Function	Notes
1	Headphone Level	Display showing level of Headphone Output
2	Speakers	Display showing level of Internal Loudspeaker and Balanced Line Level Output output.
3	Audio Meter Scale	Audio Meter Scale in dBFS
4	Audio Level Display	*See settings 8 and 9 on Page **37** of this manual for further information on setting Warning and Alarm Thresholds.*
5	Balance/Pan Display	The relative contribution to the Left and Right channels of the Stereo Monitoring Mix is identified by the position of the Balance/Pan
6	Status Indicators	Status indicators showing presence of valid input sources
7	Channel Name	*See Page **36** of this manual for further information on how to set Channel Names.*
8	Phase Meter	Audio Phase Meter for currently selected audio pair

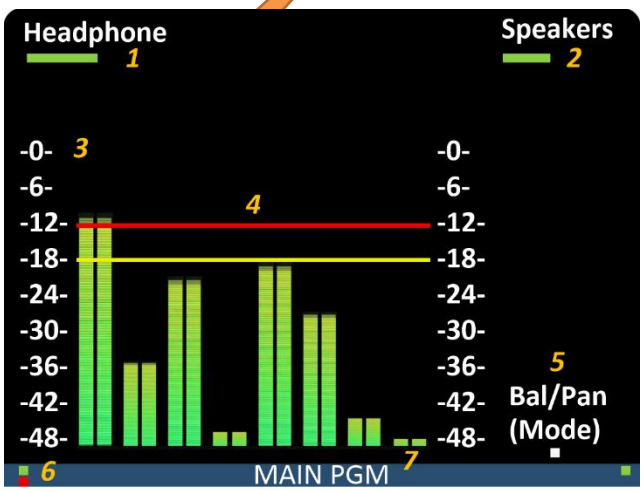
MPA1-MIX-DANTE Front Panel Display

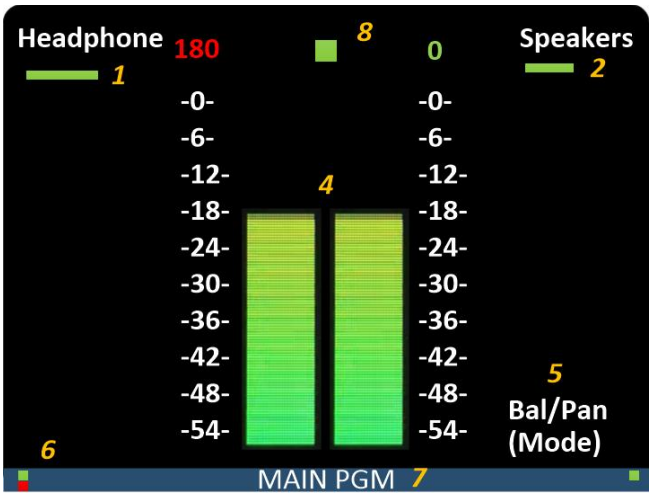


Display	Function	Notes
1	Channel Label	Label displaying Channel friendly name. *NOTE: Friendly names for MADI and DANTE sources can be entered in the Channel Names section displayed within the Names Tab of the MPA1-MIX-DANTE Webpage. Friendly names for DANTE sources can also be derived from the DANTE Network when set to AUTO.* *See the Channels Name section of the MPA1-MIX-DANTE Webpage. See Page **63** of this manual for further information.*
2	Audio Level Meters	Displays Audio Level of associated Source Channel
3	Gain Bar Display	Level of Channel contribution to Stereo Monitoring Mix. *NOTE: Inclusion of the Gain Bar Display is determined by setting 6 in the Configuration Tab of the MPA-MIX-DANTE Webpage. See Page 6**5** of this manual for further information.*
4	Balance/Pan Display	The relative contribution to the Left and Right channels of the Stereo Monitoring Mix is identified by the position of the Balance/Pan
5	Headphone and Speakers Level Display	Display of current Headphone and Loudspeaker Output Level settings (0 Min – 100 Max).

6	Mix Bank Name	Label displaying friendly name of currently selected Mix Bank. NOTE: *Friendly names can be entered in the Group Names section displayed within the Names Tab of the MPA1-MIX-DANTE Webpage.* *See Page **63** of this manual for further information*

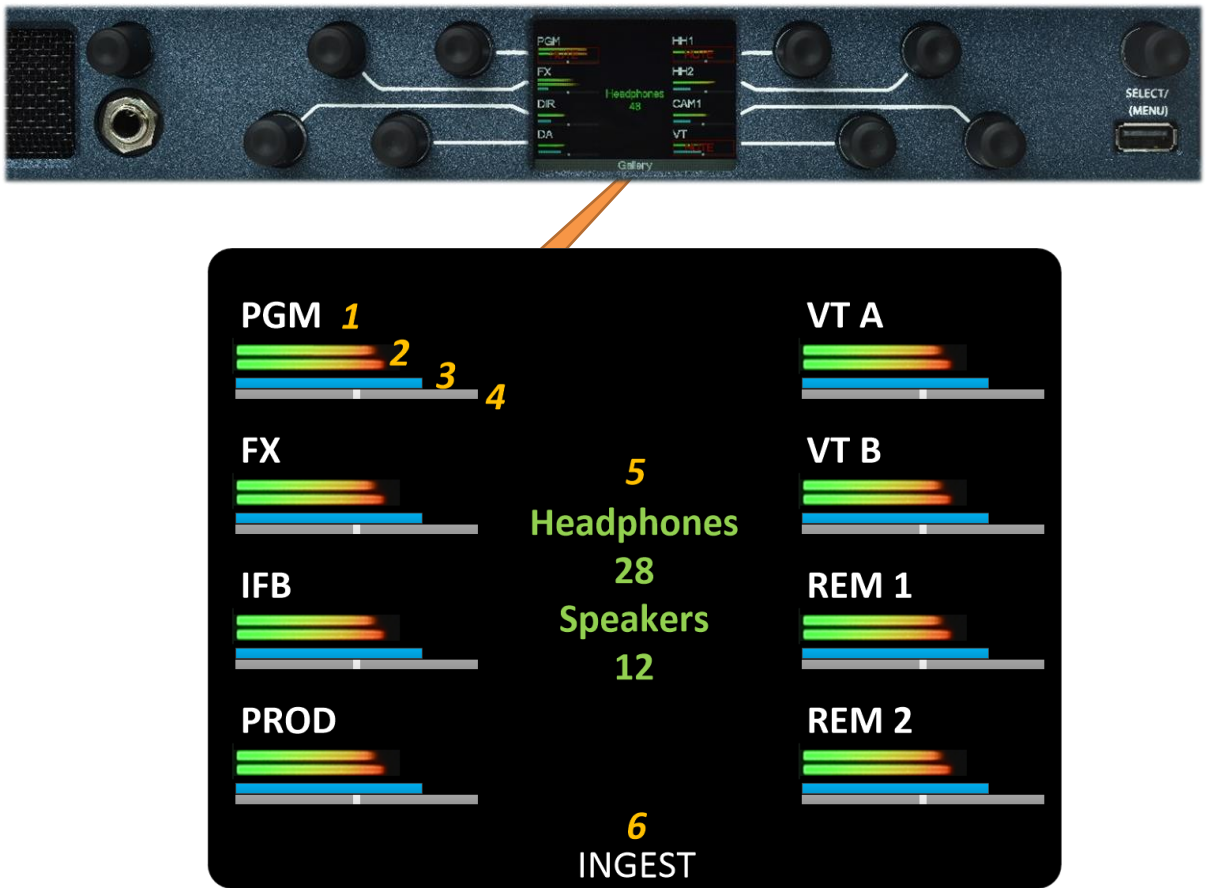
MPA1-SOLO-8 Front Panel Display





Display	Function	Notes
1	Headphone Level	Display showing level of Headphone Output
2	Speakers	Display showing level of Internal Loudspeaker and Balanced Line Level Output output.
3	Audio Meter Scale	Audio Meter Scale in dBFS
4	Audio Level Display	*See settings 7 and 8 on Page **42** of this manual for further information on setting Warning and Alarm Thresholds.*
5	Balance/Pan Display	The relative contribution to the Left and Right channels of the Stereo Monitoring Mix is identified by the position of the Balance/Pan
6	Status Indicators	Status indicators showing presence of valid input sources
7	Channel Name	*See Page **41** of this manual for further information on how to set Channel Names.*
8	Phase Meter	Audio Phase Meter for currently selected audio pair

MPA1-MIX-8 Front Panel Display



Display	Function	Notes
1	Channel Label	Label displaying Channel friendly name. *NOTE: Friendly names can be entered in the Channel Names section displayed within the Names Tab of the MPA1-MIX-SDI Webpage. See Page 7**0** of this manual for further information.*
2	Audio Level Meters	Displays Audio Level of associated Source Channel
3	Gain Bar Display	Level of Channel contribution to Stereo Monitoring Mix. *NOTE: Inclusion of the Gain Bar Display is determined by setting 6 in the Configuration Tab of the MPA-MIX-8 Webpage. See Page **72** of this manual for further information.*
4	Balance/Pan Display	The relative contribution to the Left and Right channels of the Stereo Monitoring Mix is identified by the position of the Balance/Pan
5	Headphone and Speakers Level Displays	Display of current Headphone and Loudspeaker Output Level settings (0 Min – 100 Max).
6	Mix Bank Name	Label displaying friendly name of currently selected Mix Bank. NOTE: *Friendly names can be entered in the Group Names section displayed within the Names Tab of the MPA1-MIX-MADI Webpage. See Page 7**0** of this manual for further information*

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