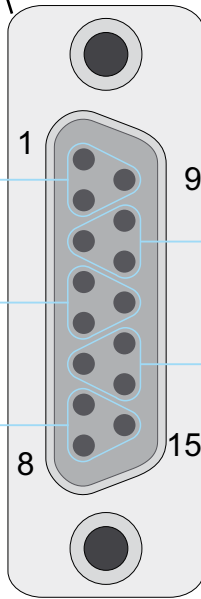
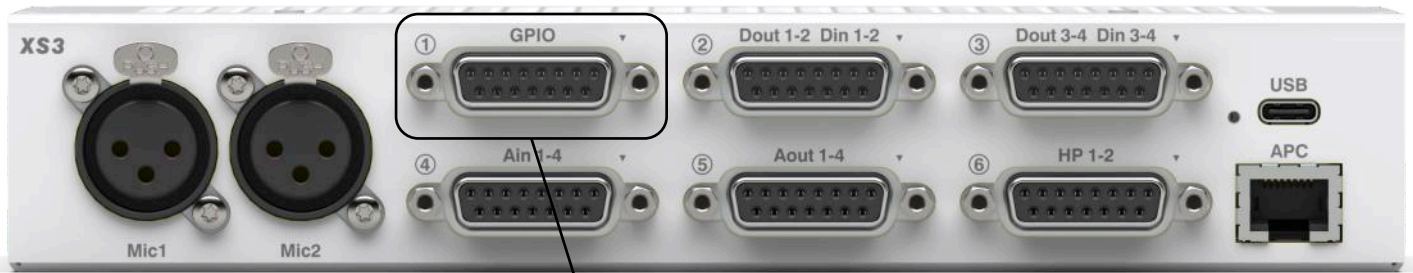


52-1340 Pin Assignment

D-Sub 15 - connector 1



Label	Type	Pin
MIKA1A	m!ka 1 LED A (yellow)	1
MIKA1B	m!ka 1 LED B (black)	2
GPI5	TTL input or push button to GND	9
GPO5	open drain/LED to 5V	4
GPO6	open drain/LED to 5V	5
GPI7	TTL input or push button to GND	12
5V-LED	+5 V max. 200 mA	7
GND	GND (0V)	8
GND	GND (0V)	15

Pin	Type	Label
10	m!ka 2 LED A (yellow)	MIKA2A
11	m!ka 2 LED B (black)	MIKA2B
3	TTL input or push button to GND	GPI6
13	open drain/LED to 5V	GPO7
14	open drain/LED to 5V	GPO8
6	TTL input or push button to GND	GPI8

GPI - general purpose input
GPO - general purpose output

Notes:

GPI and GPO sections are NOT isolated from each other and from the modules internal circuits.

GPI section uses TTL logic inputs with integrated pull up resistor of 5kOhms to internal +3.3V for direct connection of push buttons switching to the common GND (Pin 8, Pin 15).

When using external DC voltages it is necessary to limit them to +5V for logic 1.

The GPO section uses open drain MOSFET outputs with integrated protection diodes to switch positive DC voltages of up to +24V to the common GND (Pin 8, Pin 15).

It is possible to connect LEDs with external series resistors to the +5V auxilliary voltage, for example 300 Ohms for approximately 10mA LED current or 100 Ohms for approximately 33mA LED current.

The +5V auxilliary voltage (Pin 7) is limited to 200mA (resettable fuse).

GPO: maximum rated current: 200mA (resettable fuse), maximum peak switched voltage: +24V DC.

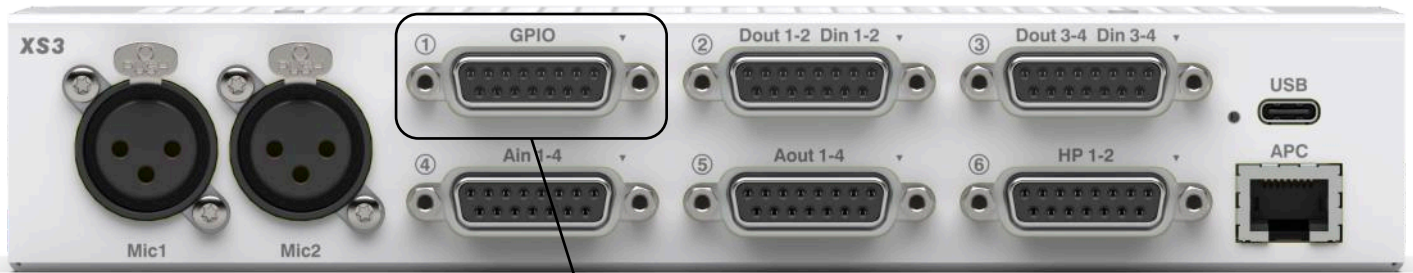
Common GND (Pin 8, Pin 15) are internally connected to chassis/housing.

Specifications and design are subject to change without notice.

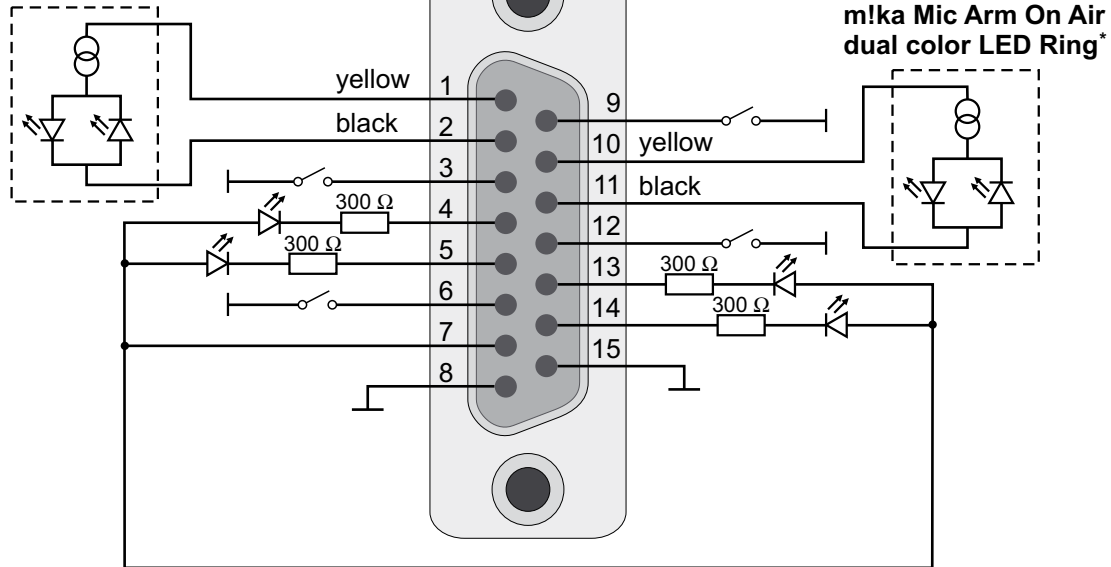
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52-1340 Pin Assignment

D-Sub 15 - connector 1 circuit example



m!ka Mic Arm On Air
dual color LED Ring*



*) https://www.yellowtec.de/fileadmin/user_upload/mika/downloads/mika_MicArm_Instructions.pdf

Notes:

Use MIKA1A/MIKA1B and MIKA2A/MIKA2B for connection to m!ka Mic Arm On Air. The m!ka Mic Arm On Air offers a integrated bicolor LED array.

Each MIKA1A/MIKA1B and MIKA2A/MIKA2B pair offers a integrated polarity reversal circuit. The output current is limited to 25mA, the voltage is 13V.

It is not allowed to use MIKA1A/MIKA1B and MIKA2A/MIKA2B for any other purpose, use each pair for connection to one m!ka Mic Arm On Air only!

GPO1-4 are available as open drain outputs on connectors 2 and 3 in parallel. GPO1-4 share the same Toolbox logic outputs, means you need to programm GPO1/GPO2 for operating pair MIKA1A/MIKA1B and GPO3/GPO4 for operating pair MIKA2A/MIKA2B.

Logical programming:

GPO1	GPO2	MIKA1A	MIKA1B	Function
0	0	high impedance	high impedance	m!ka both LEDs off
0	1	0V	+13V	m!ka WHITE LED on
1	0	+13V	0V	m!ka RED LED on
1	1	0V	0V	m!ka both LEDs off

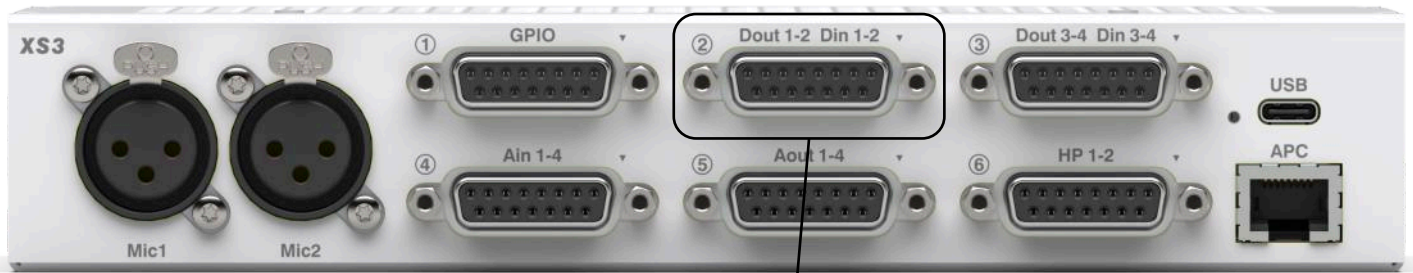
GPO3	GPO4	MIKA2A	MIKA2B	Function
0	0	high impedance	high impedance	m!ka both LEDs off
0	1	0V	+13V	m!ka WHITE LED on
1	0	+13V	0V	m!ka RED LED on
1	1	0V	0V	m!ka both LEDs off

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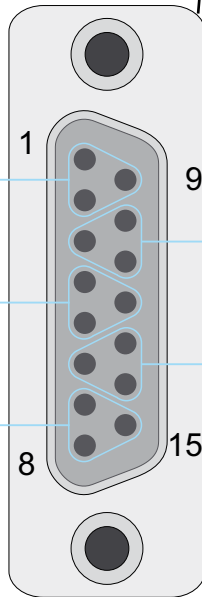
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52-1340 Pin Assignment

D-Sub 15 - connector 2



Label	Type	Pin
Din1	AES3/EBU in 1+	1
	AES3/EBU in 1-	2
	SHIELD	9
Dout1	AES3/EBU out 1+	4
	AES3/EBU out 1-	5
	SHIELD	12
GPO	GPO 1	7
	GPO 2	8
	GND	15



Pin	Type	Label
10	AES3/EBU in 2+	Din2
11	AES3/EBU in 2-	
3	SHIELD	
13	AES3/EBU out 2+	Dout2
14	AES3/EBU out 2-	
6	SHIELD	

ACI - analog control input
 GPI - general purpose input
 GPO - general purpose output

Notes:

GPI/ACI and GPO sections are NOT isolated from each other and from the modules internal circuits.

GPO section uses open drain MOSFET outputs with integrated protection diodes to switch positive DC voltages of up to +24V to the common GND (Pin 15).

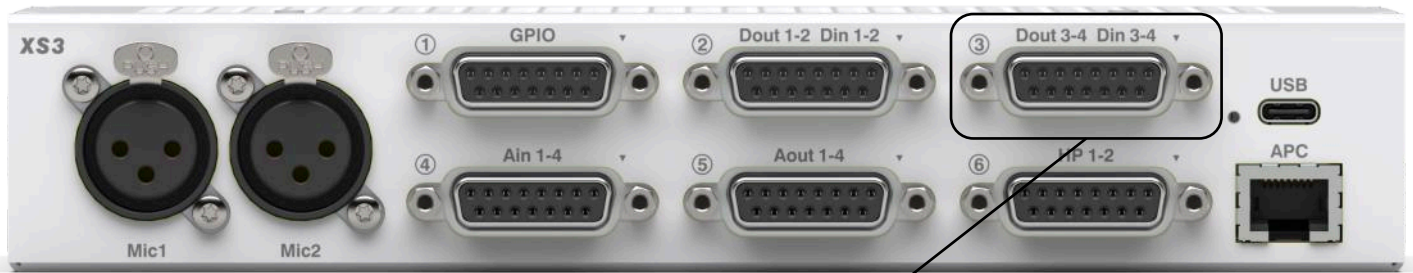
GPO: maximum rated current: 200mA (resettable fuse), maximum peak switched voltage: +24V DC.

Specifications and design are subject to change without notice.

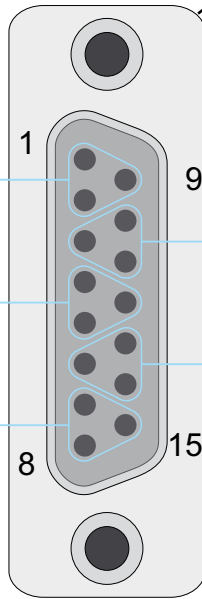
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52-1340 Pin Assignment

D-Sub 15 - connector 3



Label	Type	Pin
Din3	AES3/EBU in 3+	1
	AES3/EBU in 3-	2
	SHIELD	9
Dout3	AES3/EBU out 3+	4
	AES3/EBU out 3-	5
	SHIELD	12
GPO	GPO 3	7
	GPO 4	8
	GND	15



Pin	Type	Label
10	AES3/EBU in 4+	Din4
11	AES3/EBU in 4-	
3	SHIELD	
13	AES3/EBU out 4+	Dout4
14	AES3/EBU out 4-	
6	SHIELD	

ACI - analog control input
 GPI - general purpose input
 GPO - general purpose output

Notes:

GPI/ACI and GPO sections are NOT isolated from each other and from the modules internal circuits.

GPO section uses open drain MOSFET outputs with integrated protection diodes to switch positive DC voltages of up to +24V to the common GND (Pin 15).

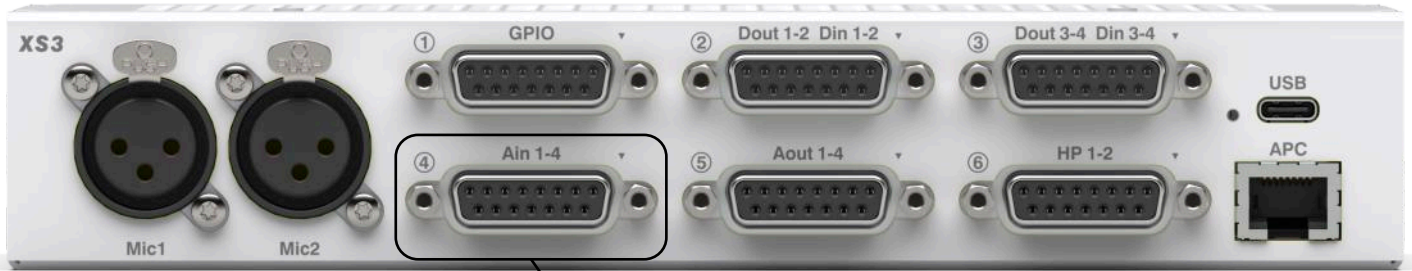
GPO: maximum rated current: 200mA (resettable fuse), maximum peak switched voltage: +24V DC.

Specifications and design are subject to change without notice.

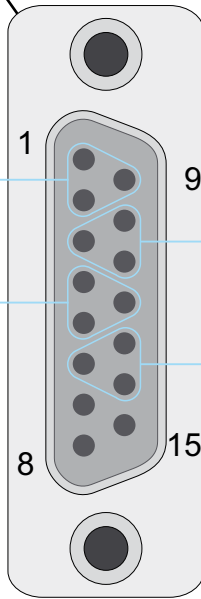
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52-1340 Pin Assignment

D-Sub 15 - connector 4



Label	Type	Pin
Ain1	LINE in 1+	1
	LINE in 1-	2
	SHIELD	9
Ain3	LINE in 3+	4
	LINE in 3-	5
	SHIELD	12



Pin	Type	Label
10	LINE in 2+	Ain2
11	LINE in 2-	
3	SHIELD	
13	LINE in 4+	Ain4
14	LINE in 4-	
6	SHIELD	

Notes:

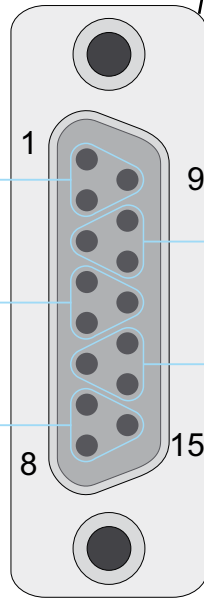
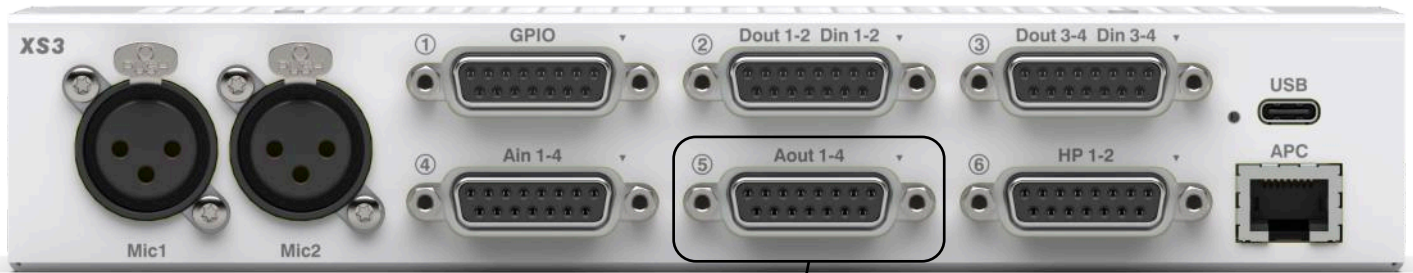
Pins 7, 8, 15 are internally not connected.

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52-1340 Pin Assignment

D-Sub 15 - connector 5



Label	Type	Pin
Aout1	LINE out 1+	1
	LINE out 1-	2
	SHIELD	9
Aout3	LINE out 3+	4
	LINE out 3-	5
	SHIELD	12
GPI/ ACI 4	GPI/ACI 4	7
	GPI/ACI_VHI 4	8
	GPI/ACI_VLO (GND)	15

Pin	Type	Label
10	LINE out 2+	Aout2
11	LINE out 2-	
3	SHIELD	
13	LINE out 4+	Aout4
14	LINE out 4-	
6	SHIELD	

ACI - analog control input
GPI - general purpose input

Notes:

GPI/ACI and GPO sections are NOT isolated from each other and from the modules internal circuits.

Do not use any of the GPI/ACI signals for other purposes than wiring to the potentiometer or external „dry contact“ switch between GPI/ACI and GPI/ACI_VHI or GPI/ACI_VLO, see example circuit.

GPI/ACI are not isolated from internal circuits!

The potentiometer must have a resistance value of 10kOhms (linear)!

GPI/ACI_VLO are internally connected to GND. Common GND and Return for Headphones are internally connected to chassis/housing.

Each signal GPI/ACI_VHI 1/2/3/4 is connected to the internal 3.3V supply with its own integrated 10k resistor and belongs to each individual GPI/ACI 1/2/3/4.

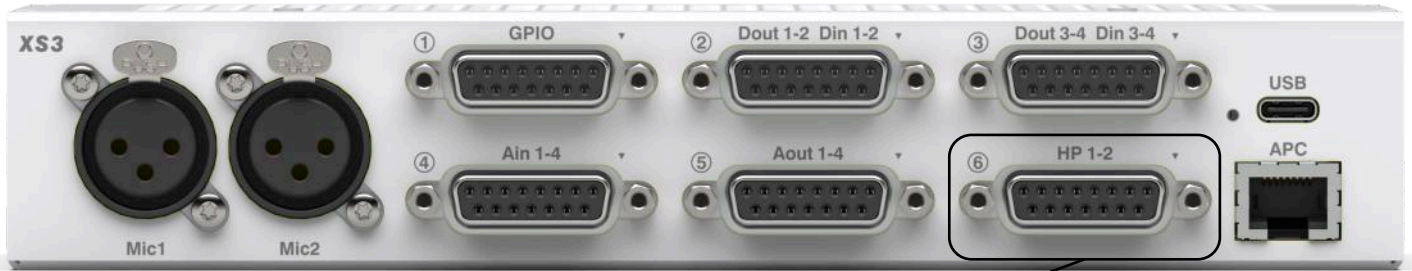
ACI potentiometer circuit	GPI circuit 1-active	GPI circuit 0-active
<p>Potentiometer 10kOhm linear</p>	<p>n.c. GPI/ACI_VLO (GND)</p>	

Specifications and design are subject to change without notice.

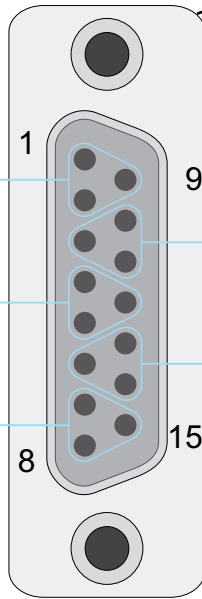
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52-1340 Pin Assignment

D-Sub 15 - connector 6



Label	Type	Pin
HP1	HP 1 L	1
	HP 1 R	2
	HP COM Return (GND)	9
GPI/ACI 1	GPI/ACI 1	4
	GPI/ACI_VHI 1	5
	GPI/ACI_VLO (GND)	12
GPI/ACI 3	GPI/ACI 3	7
	GPI/ACI_VHI 3	8
	GPI/ACI_VLO (GND)	15



Pin	Type	Label
10	HP 2 L	HP2
11	HP 2 R	
3	HP COM Return (GND)	
13	GPI/ACI 2	GPI/ACI 2
14	GPI/ACI_VHI 2	
6	GPI/ACI_VLO (GND)	

ACI - analog control input
GPI - general purpose input

Notes:

GPI/ACI and GPO sections are NOT isolated from each other and from the modules internal circuits.

Do not use any of the GPI/ACI signals for other purposes than wiring to the potentiometer or external „dry contact“ switch between GPI/ACI and GPI/ACI_VHI or GPI/ACI_VLO, see example circuit.

GPI/ACI are not isolated from internal circuits!

The potentiometer must have a resistance value of 10kOhms (linear)!

GPI/ACI_VLO are internally connected to GND. Common GND and Return for Headphones are internally connected to chassis/housing.

Each signal GPI/ACI_VHI 1/2/3/4 is connected to the internal 3.3V supply with its own integrated 10k resistor and belongs to each individual GPI/ACI 1/2/3/4.

ACI potentiometer circuit	GPI circuit 1-active	GPI circuit 0-active

Specifications and design are subject to change without notice.

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