5282 1 INPUT, 5 OUTPUT AES DA SUB-MODULE

CONTENTS

1 INTRODUCTION

The 5282 is a sub-module used only on the 5281 digital audio distribution amplifier.

It provides a 1 in, to 5 out DA function which can be independent of, or tied to, the main signal on the base 5281 module.

2 SPECIFICATION

2.1 Inputs

Number and type:	1 AES/EBU input, transformer coupled, balanced conforming to AES 3-1992, or 1 TTL level signal from 5281 module.
Impedance:	75, 110Ω or bridging, jumper selectable
Indicators:	Green LED for valid AES signal on (AES/EBU) input.

2.2 Outputs

Number and type:	5 transformer coupled, balanced or unbalanced conforming to AES 3-1992. Also TTL level copy of AES/EBU input to 5281
Impedance:	110Ω
Output level:	Minimum 3V peak-to-peak into 110Ω as standard, typically 6.5V peak-to-peak on internal 8V setting
Temperature range:	
Operating:	0 ° C to +40 ° C

2.3 General

Size:	94mm x 120mm (approx.) - mounts on a 5281 (3U extended Eurocard).
Weight:	100g (approx.)
Power:	+5V at approx. 120mA and ±12 Volts, supplied by the 5281
Connectors:	2 x 32 pin SIL strips which mate with the 5281

3 GENERAL DESCRIPTION

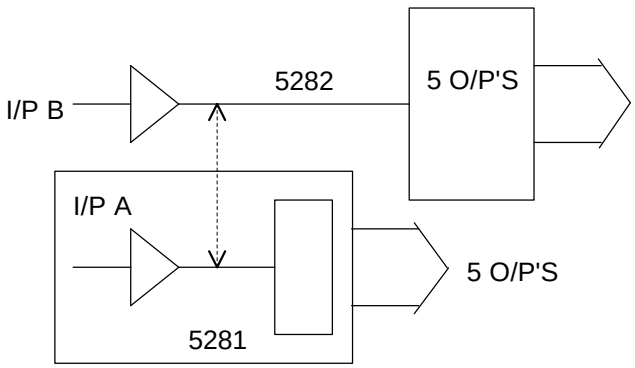
The 5282 consists of a single PCB which is designed to match the 5281 series of products. It is a 5-way splitter (distribution amplifier or DA) which can be mounted on a 5281 to create a 1 x 10 DA. It also has the facility to be 2 independent 1 x 5's. In the 1 x 10 mode either the main board input (input A) can be used or the sub-board input (input B). This is selected by jumpers which can be changed in situ. This sub-module also has:-

- Selectable input impedance
- Selectable output driver level for higher output.

4 CIRCUIT DESCRIPTION

The 5282 uses a standard AES receiver chip, IC3, which re-clocks and extracts the data from the incoming signal. The extracted data from IC3 is then fed, via a switch in IC7 to the output driver stage, IC's 4 and 5. These are differential drivers with a separate supply rail which can be linked by LK18 to an on board regulator IC10. This provides an 8V (approximately) supply to these drivers. Normally they are linked by LK20 to the 5V supply from the 5281. The differential drivers supply transformer coupled outputs with individual impedance matching networks on each output.

The jumper PL1 allows for 1 x 10 or 2 x 5 operation and PL3 for selection of input in 1 x 10 mode. PL2 is not used in this application and is always set to DATA. LED D7 is controlled by IC3 and is lit when the receiver is locked to an input signal.



BLOCK DIAGRAM

5 INSTALLATION

WARNING: This sub-module can only be used on a 5281. Before fitting to a 5281, ensure that the power has been removed from the 5281 for at least 1 minute to allow the PSU capacitors to discharge. Failure to do so could result in damage to both boards.

Remove the two M3 x 8mm screen fixing screws form the ejector end of the 5281. Align the 5282 with the connector strips on the 5281. **Check that PL7 pin1 (5281) mates with PL7 pin 1 of 5282.** Press the two boards together evenly, **do not use excessive force.** Using the two 16mm screws & 8mm spacers provided with the 5282, fit the spacers under the sub-module and fit the screws from the 5282, component side, through to the bushes mounted on the screen.

Set the jumpers for the desired mode of operation and re-fit the whole assembly into its frame.

5.1 Jumpers and Links

PL1	1 x 10	2 x 5
	10 COPIES OF PL3	5 A'S AND 5 B'S
PL2	DATA	DATA
PL3	1 x 10 MODE	1 x 5 MODE
A	10 COPIES OF I/P A	NOT USED
B	10 COPIES OF I/P B	NOT USED

Note: PL2 on the 5281 must be set to **DATA**

5.2 Connectors

PIN NO	PL7	PL8	PIN NO
1A	+5V	+15V	1A
2A	N/C	N/C	2A
3A	N/C	N/C	3A
4A	N/C	N/C	4A
5A	N/C	N/C	5A
6A	N/C	N/C	6A
7A	-15V unreg	GND	7A
8A	DRIVER VOLTS	N/C	8A
9A	REF	SELECT2	9A
10A	N/C	N/C	10A
11A	N/C	N/C	11A
12A	N/C	SDATA2	12A
13A	N/C	FSYNC2	13A
14A	N/C	N/C	14A
15A	N/C	SDATA1	15A
16A	N/C	N/C	16A
17A	N/C	N/C	17A
18A	N/C	OUT6+	18A
19A	N/C	OUT6-	19A
20A	N/C	GND	20A
21A	FSYNC1	OUT7+	21A
22A	N/C	OUT7-	22A
23A	N/C	GND	23A
24A	N/C	OUT8+	24A
25A	N/C	OUT8-	25A
26A	N/C	GND	26A
27A	N/C	OUT9+	27A
28A	N/C	OUT9-	28A
29A	GND	GND	29A
30A	BIN+	OUT10+	30A
31A	BIN-	OUT10-	31A
32A	GND	GND	32A

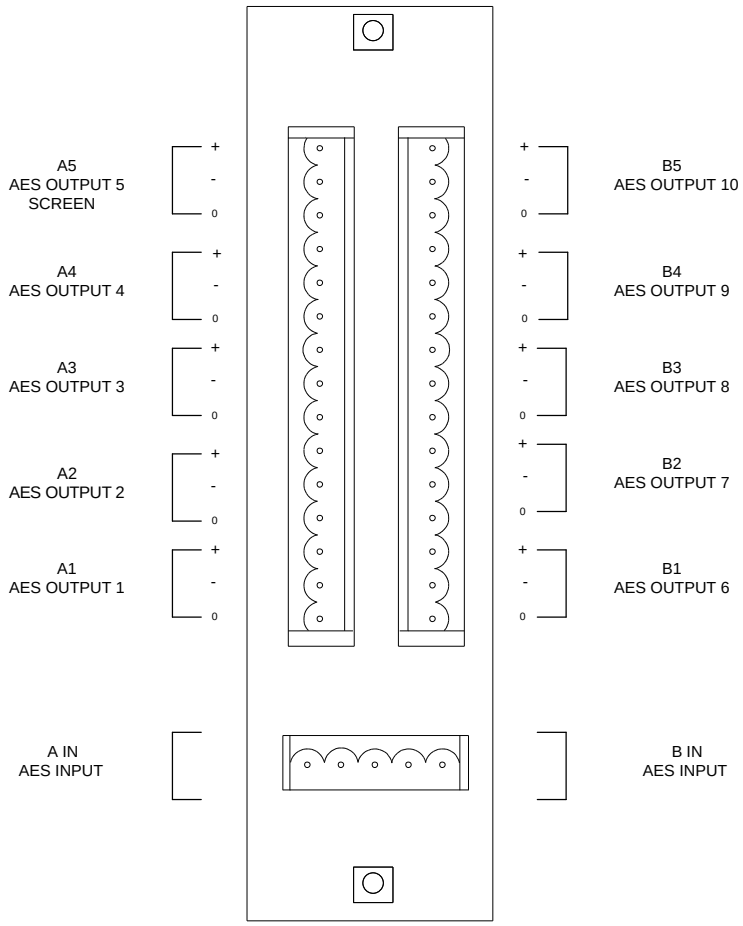
Note: For connections to the rear panel see Section 6.

6 TERMINATION PANELS

This module may be used with the following termination panels.

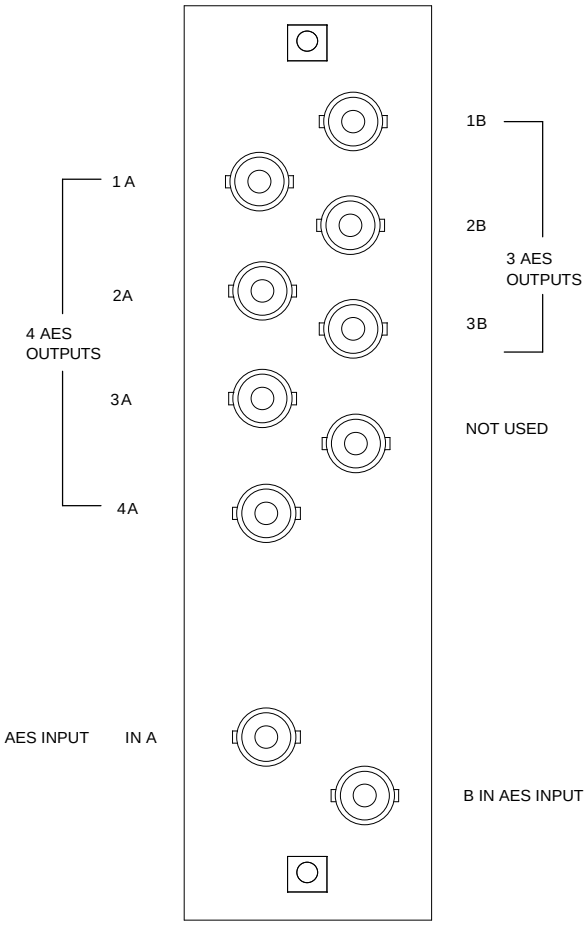
6.1 6068 Panel

This panel provides 10 balanced AES outputs.



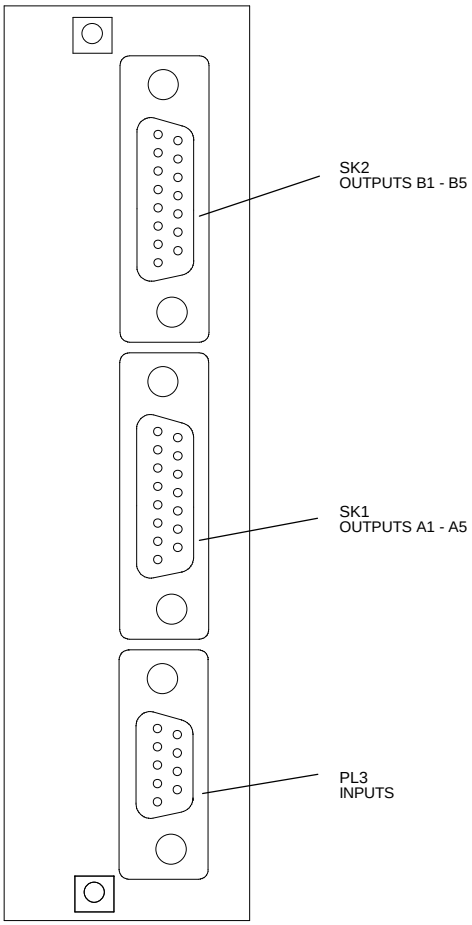
6.2 6269 Panel

This panel produces 7 unbalanced AES outputs.



6.3 1668 Panel

This panel provides 5 balanced outputs.



6.3.1 SK2 Pinout

15 way 'D' type socket.

PIN	FUNCTION	PIN	FUNCTION
1	B5+	9	B5-
2	Screen	10	B4+
3	B4-	11	Screen
4	B3+	12	B3-
5	Screen	13	B2+
6	B2-	14	Screen
7	B1+	15	
8	Screen		

6.3.2 SK1 Pinout

15 way 'D' type socket.

PIN	FUNCTION	PIN	FUNCTION
1	A5+	9	A5-
2	Screen	10	A4+
3	A4-	11	Screen
4	A3+	12	A3-
5	Screen	13	A2+
6	A2-	14	Screen
7	A1+	15	A1-
8	Screen		

6.3.3 PL3 Pinout

9 way 'D' type plug.

PIN	FUNCTION
1	Screen
2	A+
3	Screen
4	B+
5	Screen
6	Screen
7	A-
8	Screen
9	B-

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