

Service Manual

Model: DI1

DIRECT INJECT BOX



www.altoproaudio.com

Version: 1.1

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1. SPECIFICATIONS (DI1)

Inputs	1/4" jack unbal. In/ Link Out XLR unbalanced In
Input Impedance	max 220 kOhm
Maximum Input level	+2/+22/+42 dBm

Output	XLR balanced Out
Load Impedance	>600 Ohm
Maximum Output Level	+6 dBm

System specifications

Bandwidth(100kOhm)	10Hz to 200Khz(3dbm)
Bandwidth(600Ohm)	10Hz to 45Khz(3dbm)
Bandwidth(High Cut)	10Hz to 8Khz(3dbm)

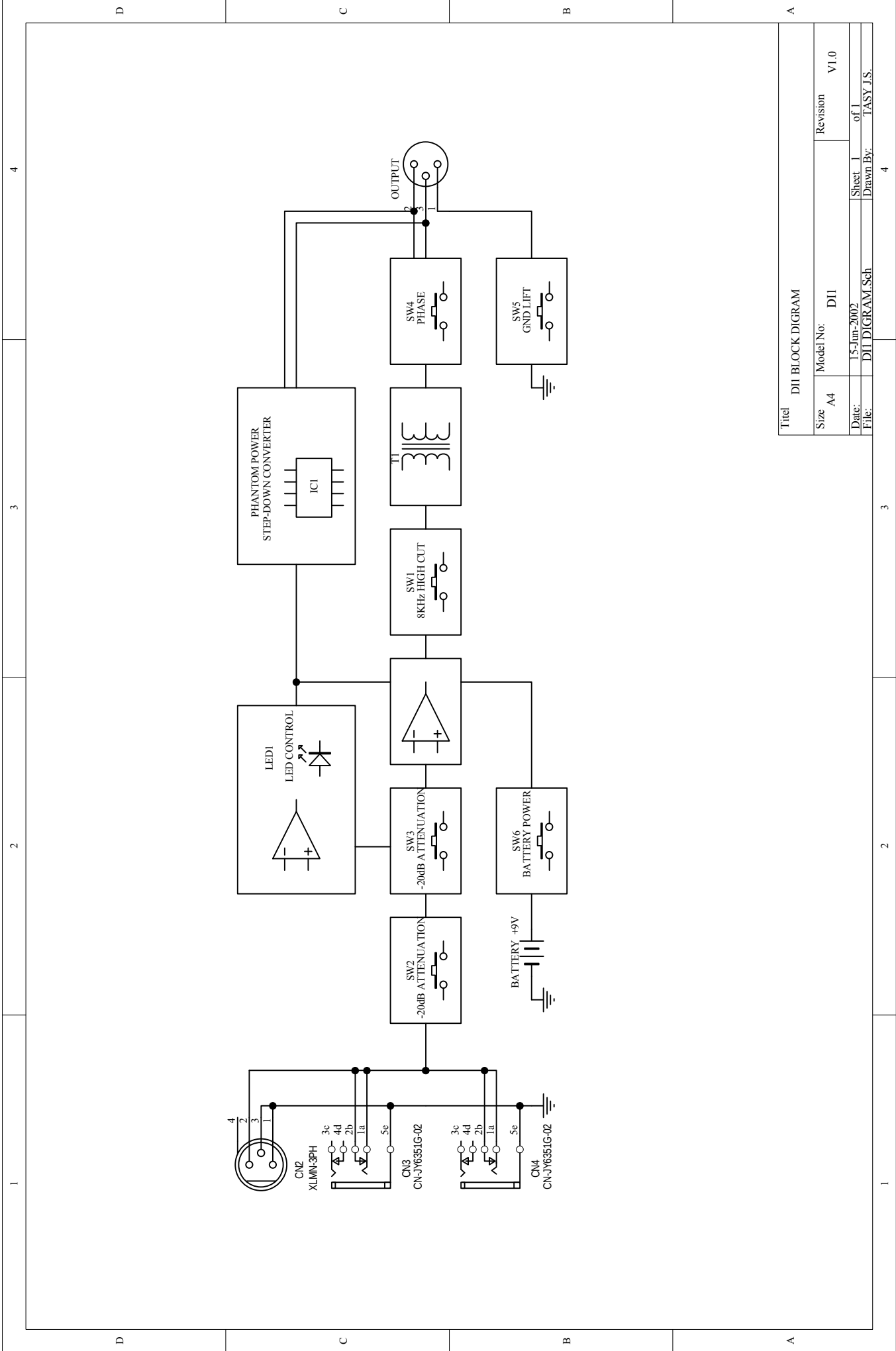
Noise Level	-105 dBm
THD+N @ 1 kHz / 1 dBm	< 0.01 %

Power supply

Phantom power 18 V DC to 48 V DC
Battery 9 V blockcell 6LR91

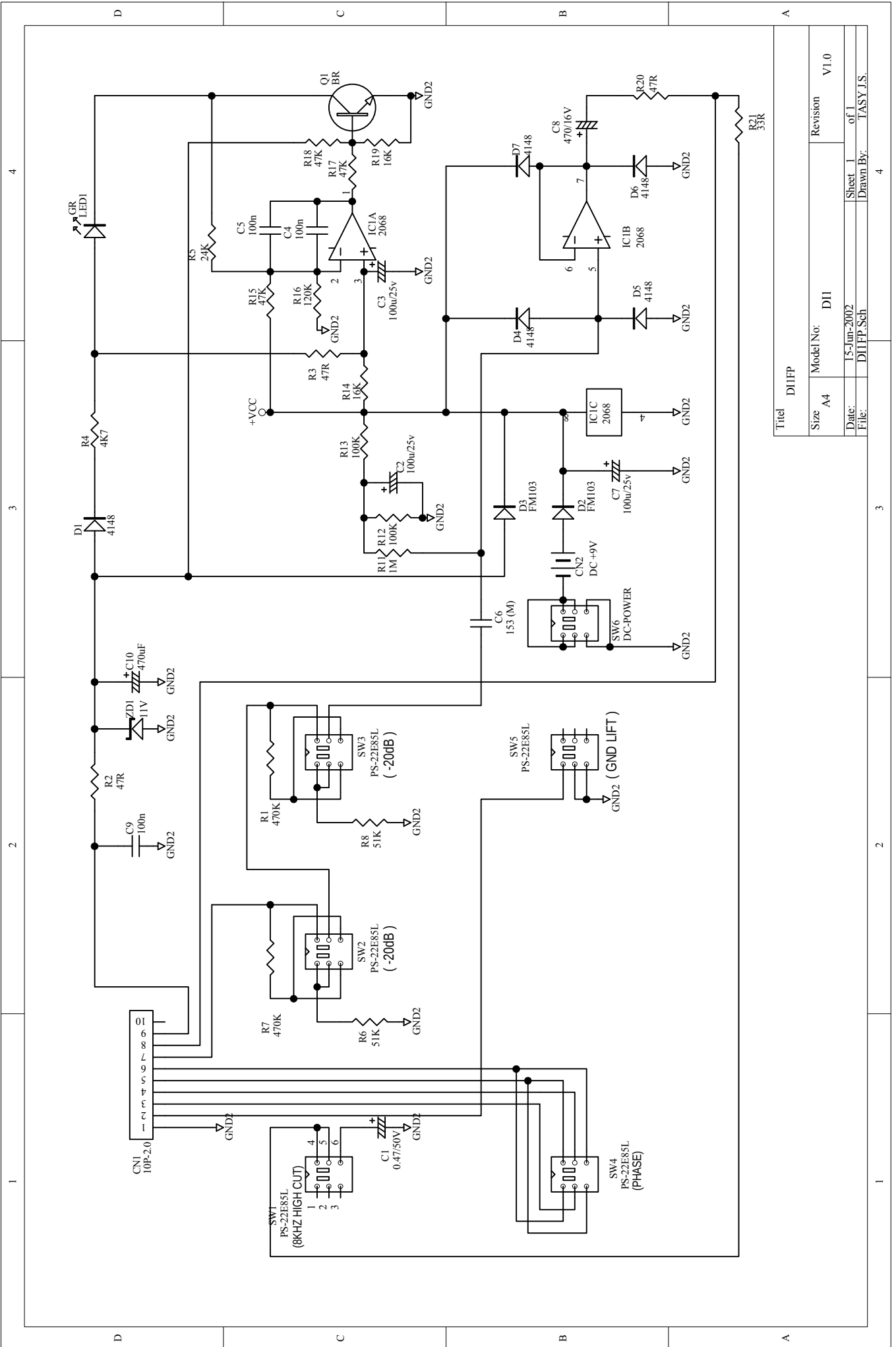
Dimensions 128 mm x 123.5 mm x 44.2 mm
Weight ca. 0.8Kg

2. Block Diagram

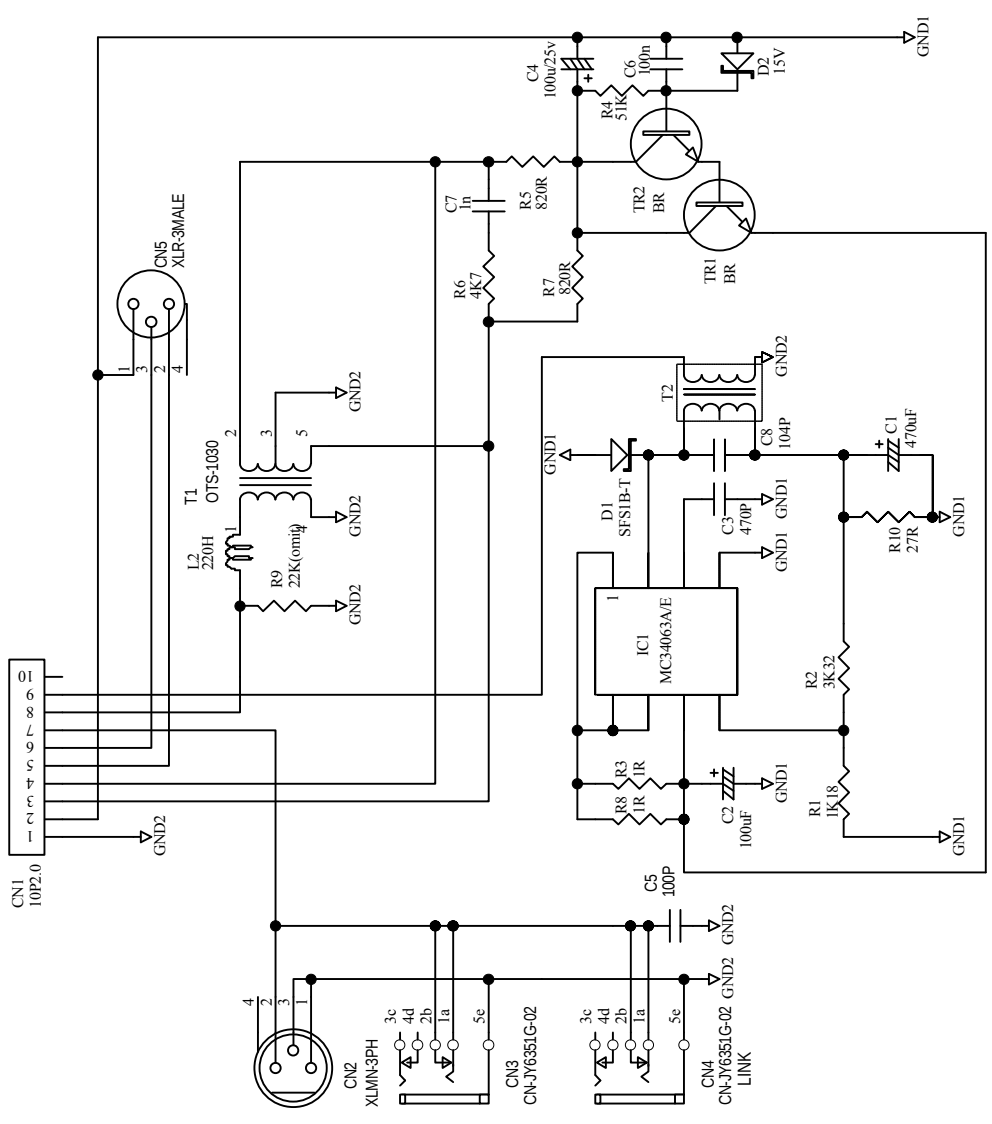


Titel		DII BLOCK DIGRAM	
Size	A4	Model No:	DII
Date:	15-Jun-2002	Revision	V1.0
File:	DII DIGRAM.Sch	Sheet 1 of 1	
		Drawn By:	TASY J.S.

3. Schematic Diagram

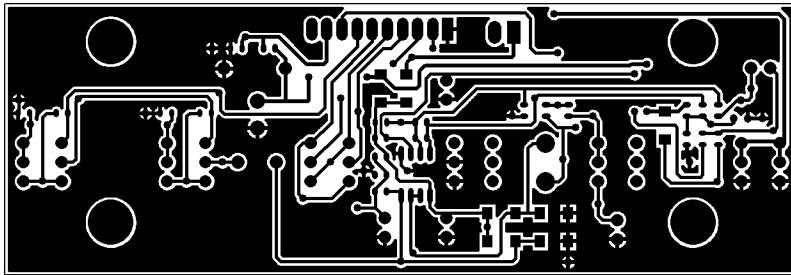


Titel		DII1FP	
Size	A4	Model No:	DII1
Date:	15-Jun-2002	Sheet	1 of 1
File:	DII1FP.Sch	Drawn By:	TASY J.S.
Revision		V1.0	

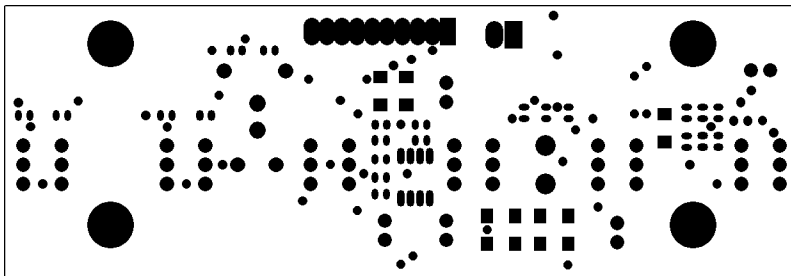


Titel		DI1PU	
Size	A4	Model No:	DI1
Date:	2-Jul-2002	Revision	V1.0
File:	DI1PU.Sch	Sheet 1	of 1
		Drawn By:	TASY J.S.

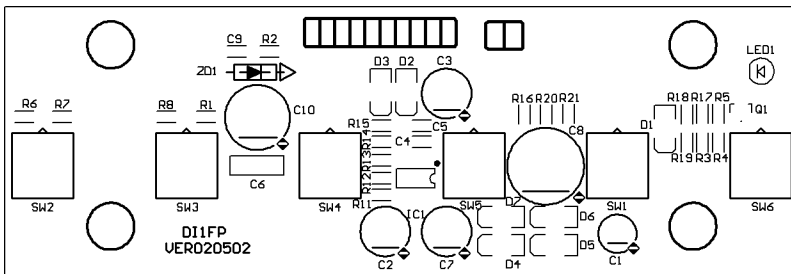
DI1FP PCB LAYOUT



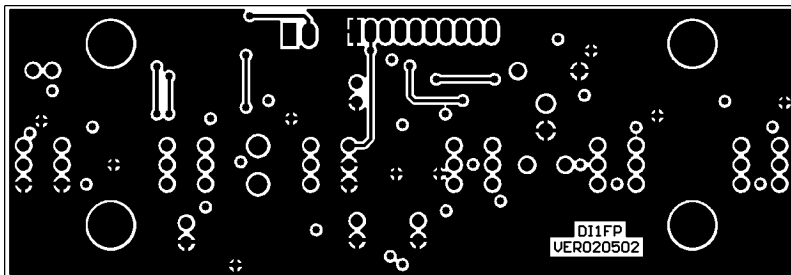
PCB : DI1FP Top Layer



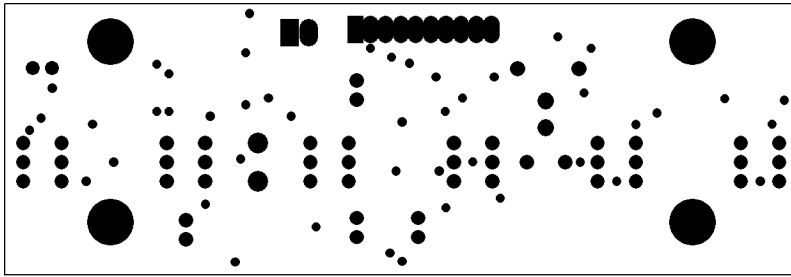
PCB : DI1FP Top Solder Mask



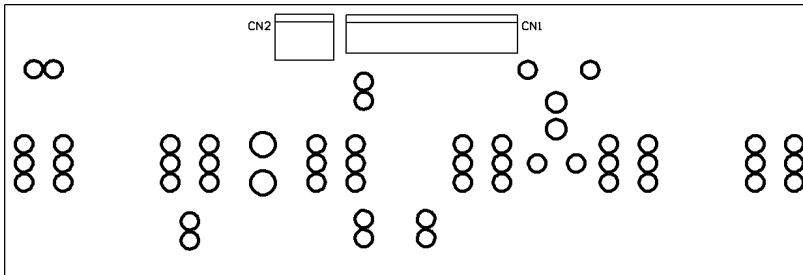
PCB : DI1FP Top Overlay



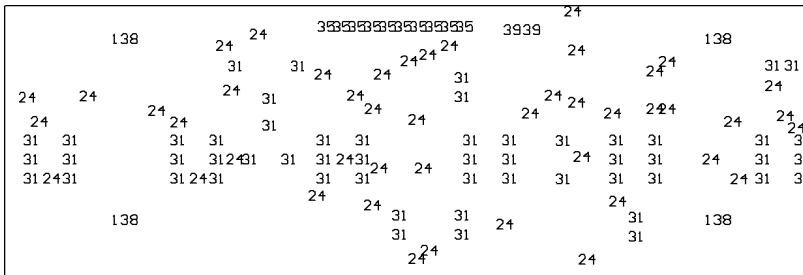
PCB : DI1FP Bottom Layer



PCB : DI1FP Bottom Solder Mask



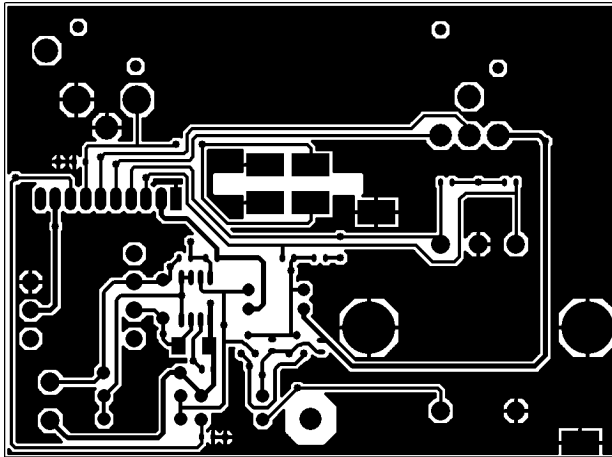
PCB : DI1FP Bottom Overlay



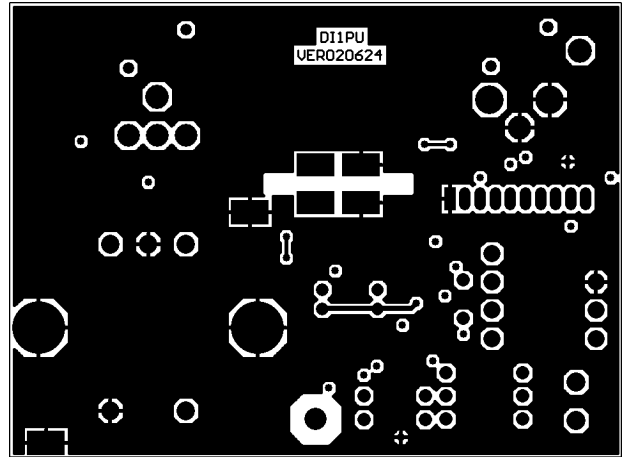
PCB : DI1FP Drill Drawing Plots

Hole Size	Hole Count
24mil (0.6mm)	46
31mil (0.8mm)	54
35mil (0.9mm)	10
39mil (1.0mm)	2
138mil (3.5mm)	4
Totals	116

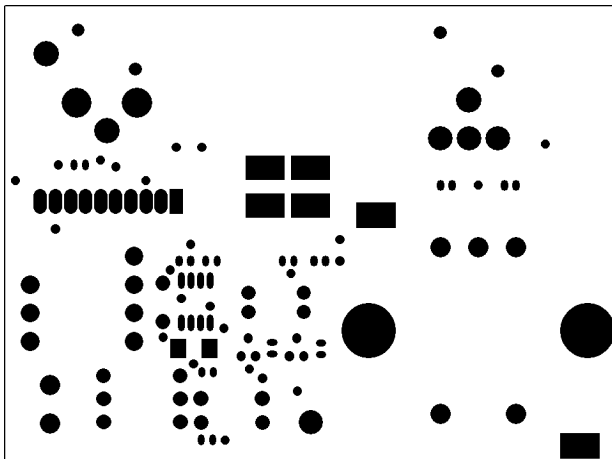
DI1PU PCB LAYOUT



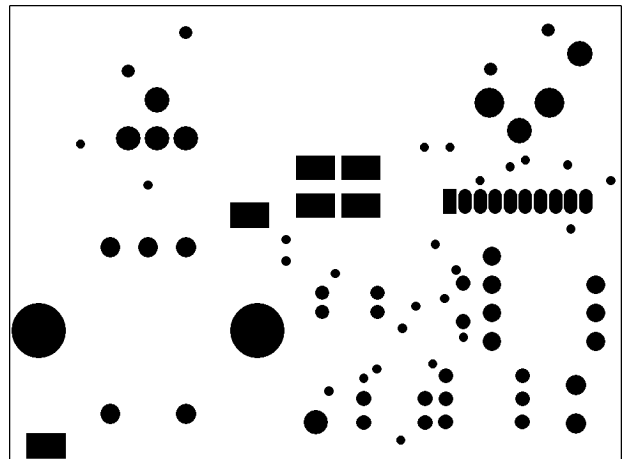
PCB : DI1PU Top Layer



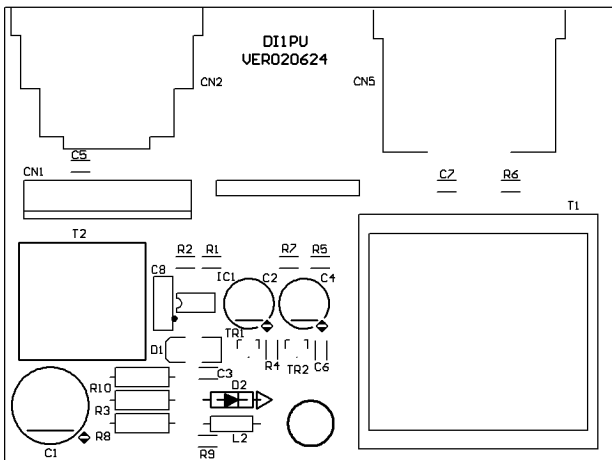
PCB : DI1PU Bottom Layer



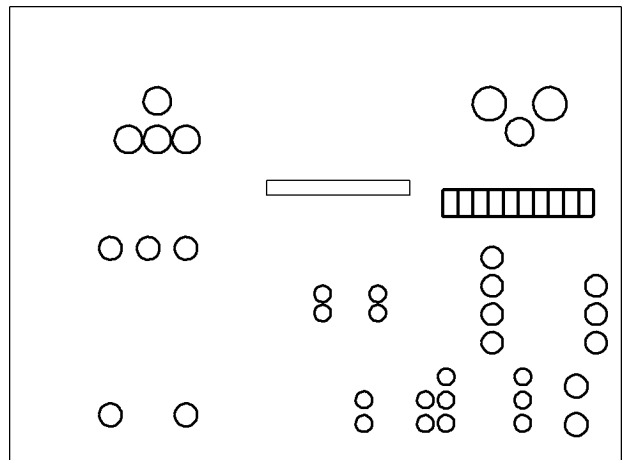
PCB : DI1PU Top Solder Mask



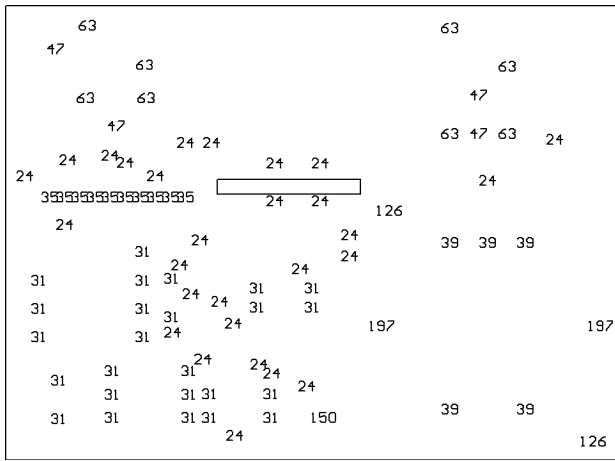
PCB : DI1PU Bottom Solder Mask



PCB : DI1PU Top Overlay



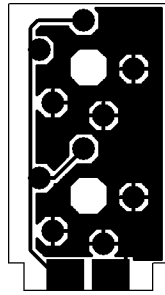
PCB : DI1PU Bottom Overlay



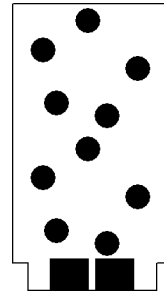
Hole Size	Hole Count
24mil (0.6mm)	28
31mil (0.8mm)	25
35mil (0.9mm)	10
39mil (1.0mm)	5
47mil (1.2mm)	4
63mil (1.6mm)	8
126mil (3.2mm)	2
150mil (3.8mm)	1
197mil (5.0mm)	2
Totals	85

PCB : DI1PU Drill Drawing Plots

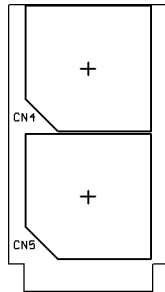
DI4IN PCB LAYOUT



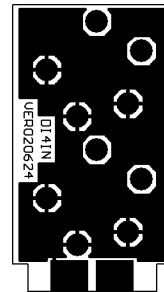
PCB : DI4IN Top Layer



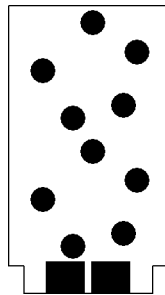
PCB : DI4IN Top Solder Mask



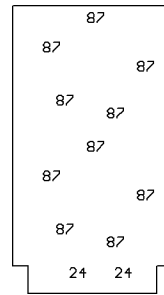
PCB : DI4IN Top Overlay



PCB : DI4IN Bottom Layer

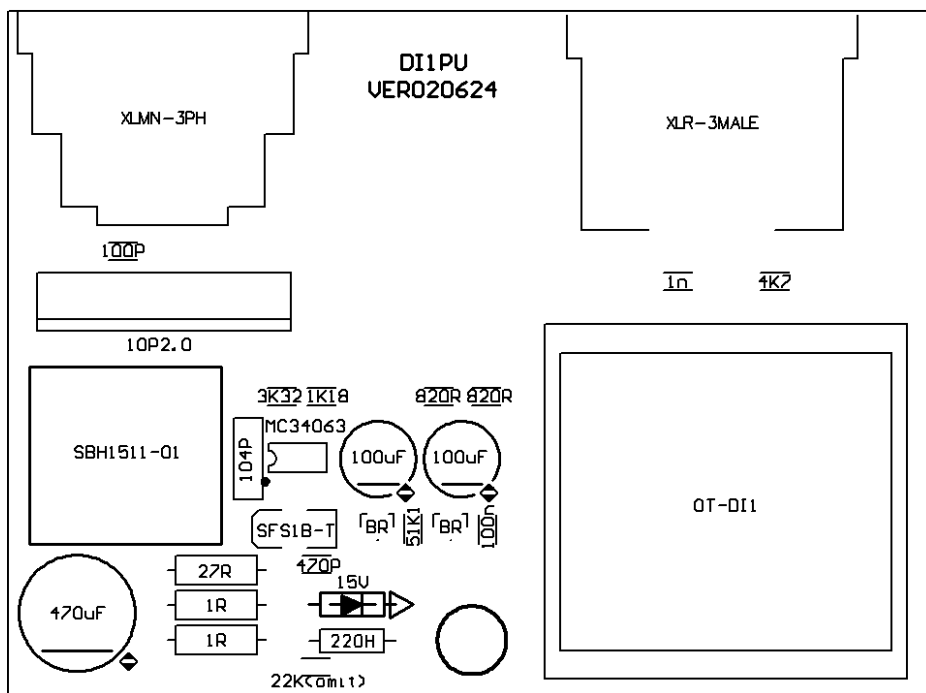


PCB : DI4IN Bottom Solder Mask

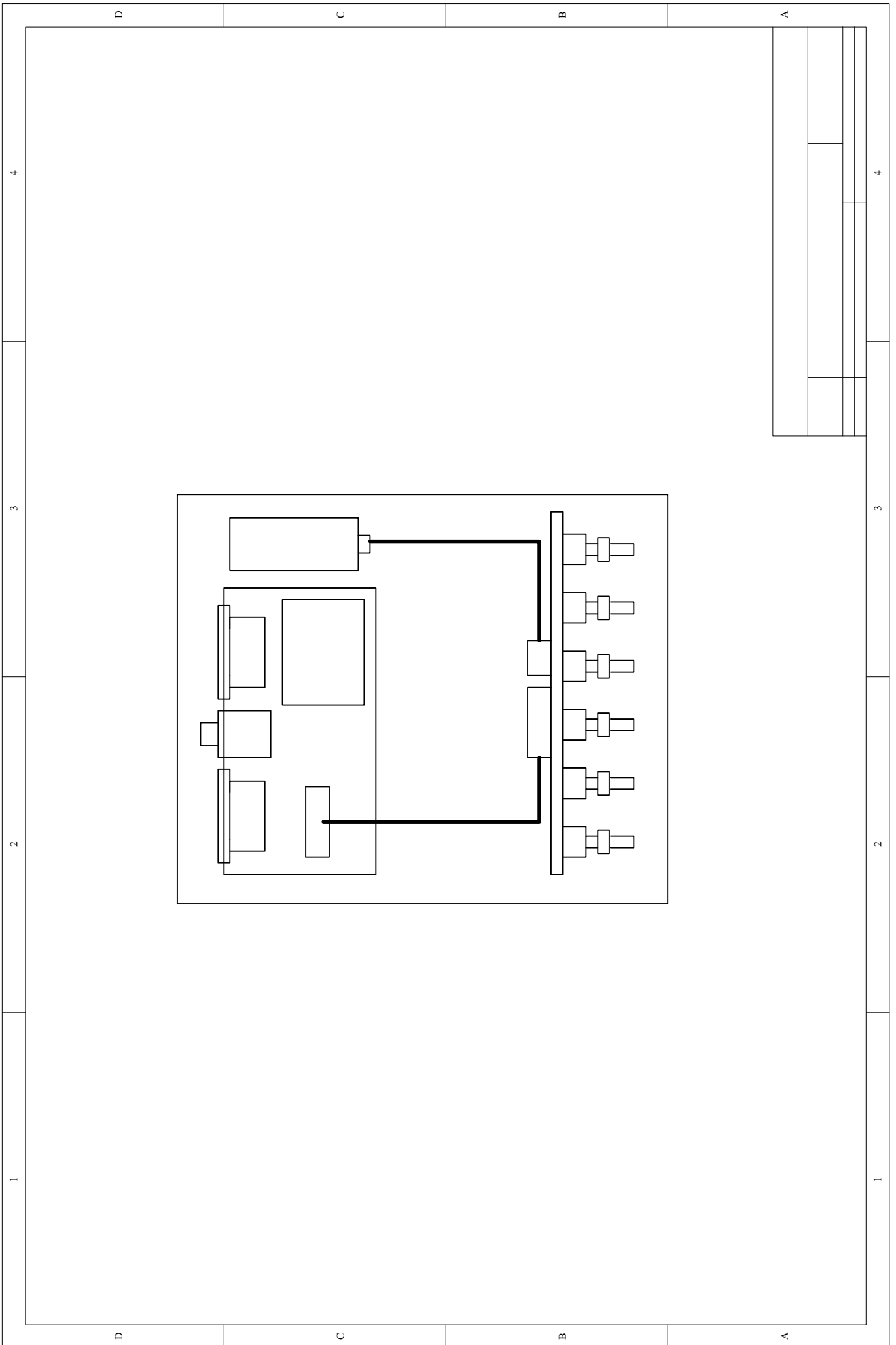


PCB : DI4IN Drill Drawing Plots

Hole Size	Hole Count
24mil (0.6mm)	2
87mil (2.2mm)	10
Totals	12

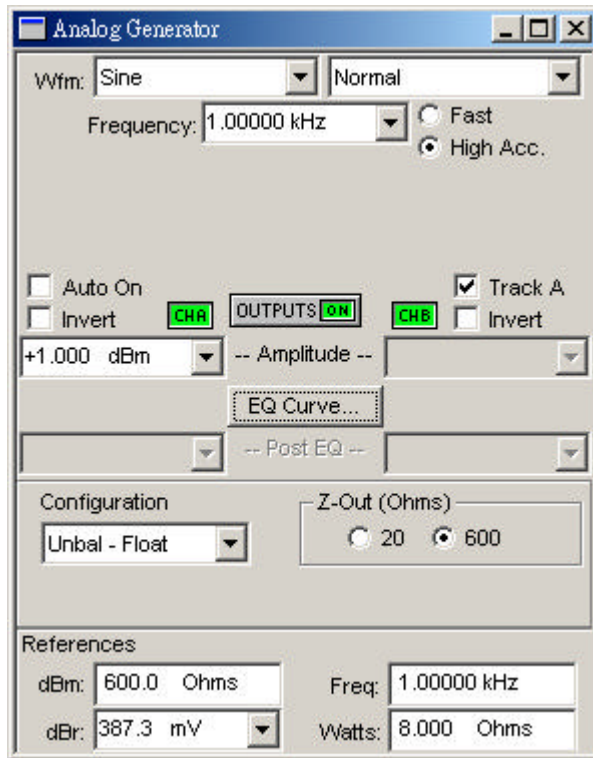


5. Wiring Diagram



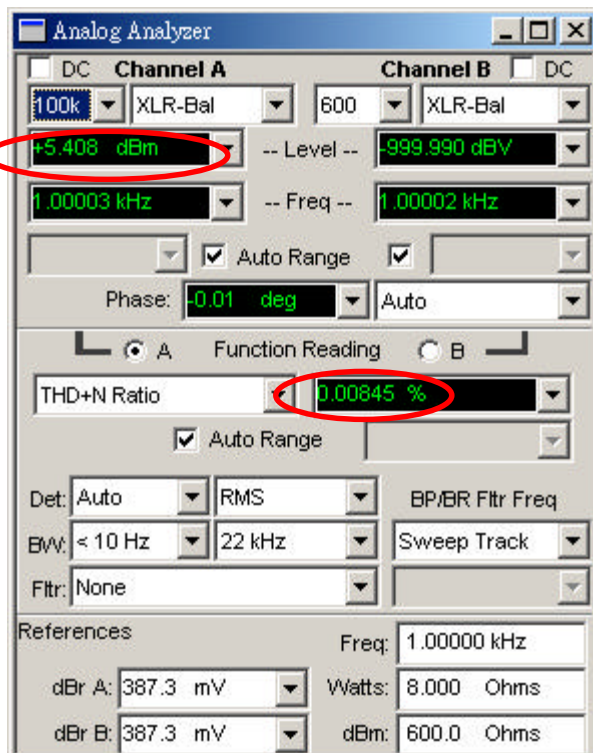
6. Test Procedure

1. Setting 1



Settings:

1.AP: set same as left features

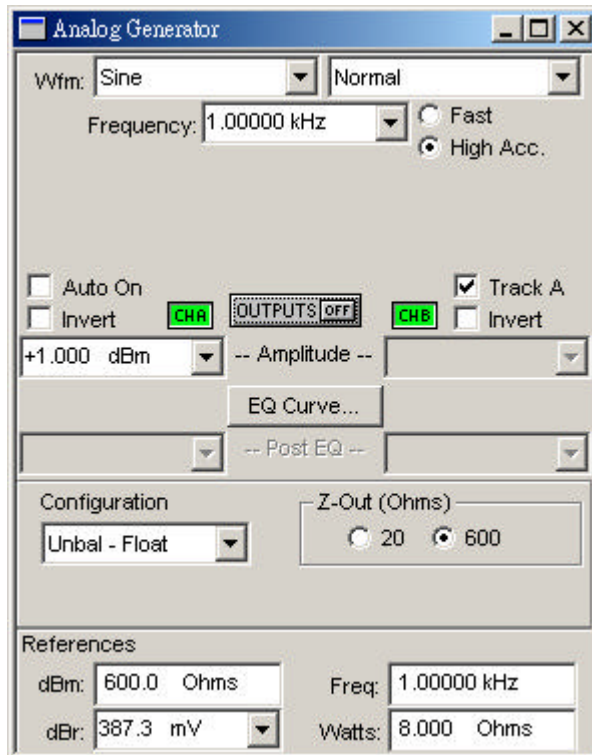


Test:

1.LEVEL: Keep it at the range of +5dBm±1dBm

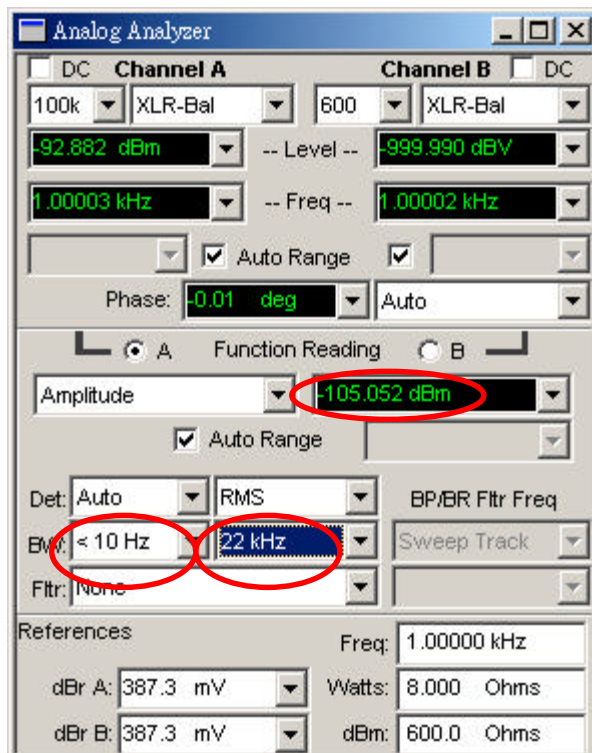
2.Distortion: 0.01%(+0.005%)

2. Setting 2.



Setting:

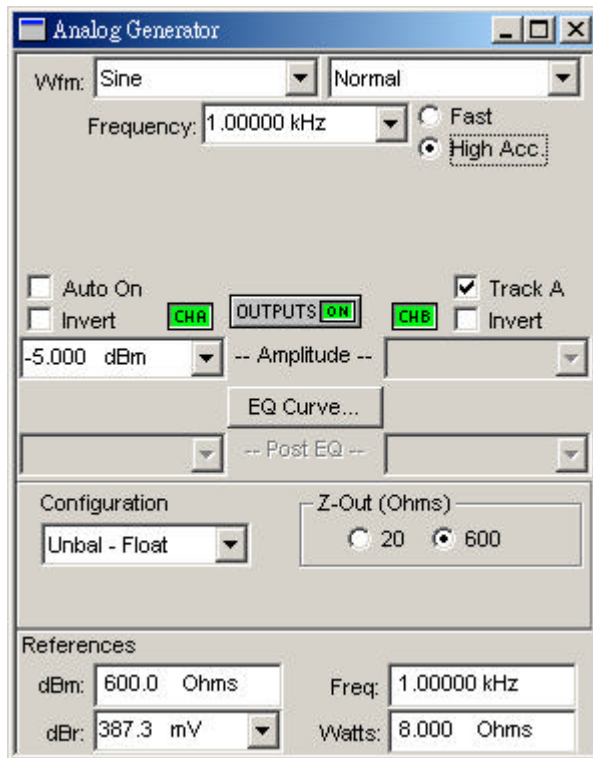
1. Set AP OUTPUT in OFF mode.



Test :

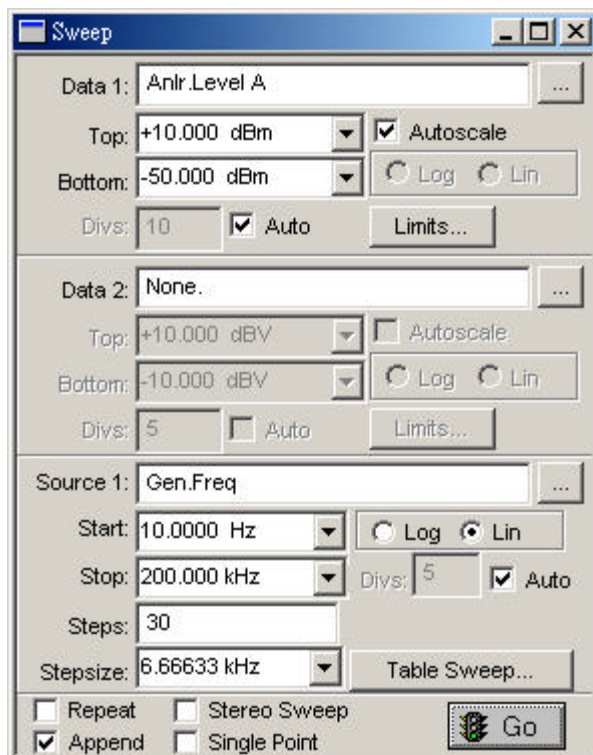
1. $\pm 3\text{dBm}$

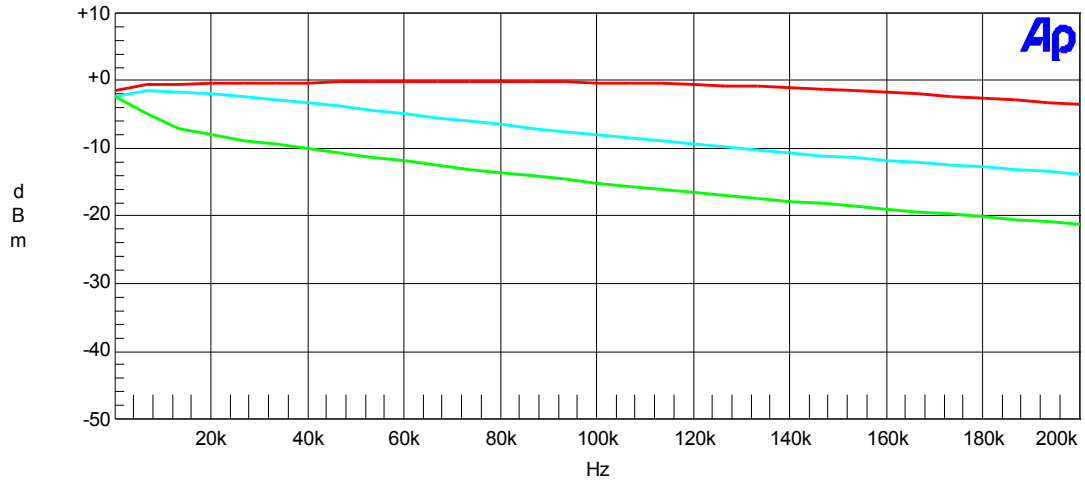
3. Test 3



Settings:

1. AP: Set as the left features.
2. RED Curve shows when all functions are at "OFF" mode, and the setting for AP output impedance is 100K
3. CYAN Curve shows when all functions are at "OFF" mode, and the setting for AP output impedance is 600
4. GREEN curve means only HIGH CUT(8KHZ) is ON, and AP output impedance is 600
5. Testing curve should be same as the curve in the pictures next page, ± 2 dBm





Color	Line Style	Thick	Data	Axis
Cyan	Solid	2	Anlr.Level A	Left
Green	Solid	2	Anlr.Level A	Left
Red	Solid	2	Anlr.Level A	Left

last.at2c

Other hints :

(1)

±2dBm

(2)

±4dBm

±0.5V or not.

“ ”

2.

7. Electrical Parts List

DI1-ALTO

Structure Needing Material Detail List

<u>NO.</u>	<u>Midprod NO</u>	<u>Quantity</u>	<u>Unit</u>
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NO	Material No	Item Name	Specific
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<i>NO</i>	<i>Material No</i>	<i>Item Name</i>	<i>Specific</i>
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<i>NO</i>	<i>Material No</i>	<i>Item Name</i>	<i>Specific</i>
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MARK:

<i>NO</i>	<i>Material No</i>	<i>Item Name</i>	<i>Specific</i>
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<i>NO</i>	<i>Material No</i>	<i>Item Name</i>	<i>Specific</i>
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<i>NO</i>	<i>Material No</i>	<i>Item Name</i>	<i>Specific</i>
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<i>NO</i>	<i>Material No</i>	<i>Item Name</i>	<i>Specific</i>
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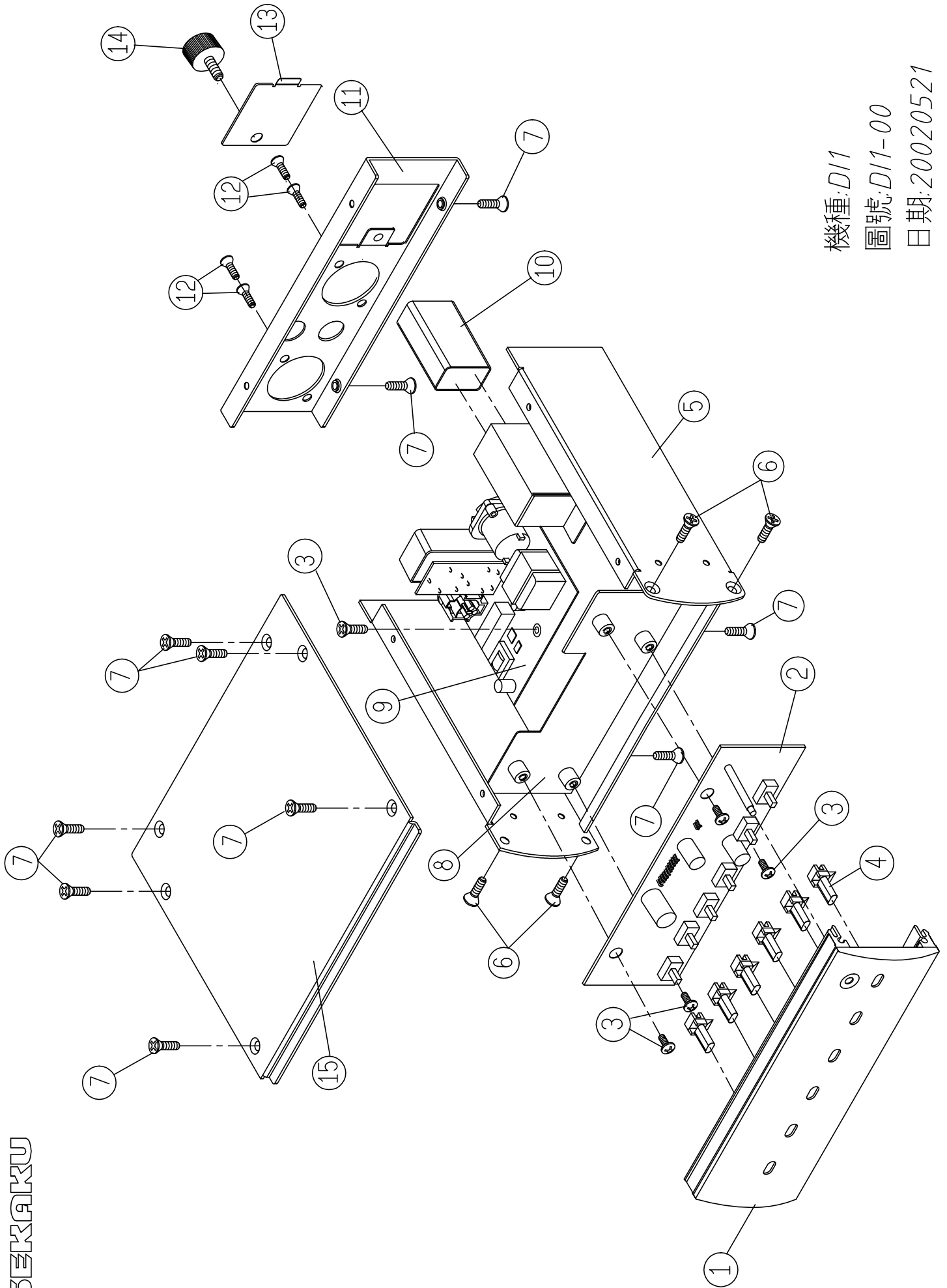
MARK:

<i>NO</i>	<i>Material No</i>	<i>Item Name</i>	<i>Specific</i>
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MARK:

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8. Exploded Views



SEKAKU

機種: D11
圖號: D11-00
日期: 20020521