

CUSTOMER :

NO :

MODEL NAME :

DATE :

MODEL NO :

# SPECIFICATION

PART NAME : FM MODULE

PART NO : DA-202

<b>APPROVAL</b>	
<b>REFERENCE NO</b>	

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**(株) D & A**

Digital & Analog Corporation

## FM STEREO TUNER MODULE : DA-202

1 OF 5

## 1. Scope

This specification applied to FM STEREO tuner Module.

## 2. General specification

NO	ITEM	SPEC	NOTE
1	Frequency Range	87.5(76) - 108 MHz	
2	IF frequency	225 kHz	
3	RF input impedance	40 $\Omega$	Unbalance
4	Supply Voltage	3V	
5	Operating temperature	- 10 -55 $^{\circ}$ C	
6	Humidity	85% MAX	
7	Clock (X-TAL)	32.768kHz	

## 3. Electrical specification

NO	ITEM	Test condition	SPEC			
			MIN	TYP	MAX	UNIT
1	Sensitivity (S/N 30dB)	90.0 MHz	-	6	12	dB $\mu$ V
		98.0 MHz	-	6	12	dB $\mu$ V
		106.0 MHz	-	6	12	dB $\mu$ V
2	S/N Ratio	40kHz, DEV	55	60	-	dB
3	Image rejection	87.5~108MHz	25	30	-	dB
4	Stereo separation	$\Delta$ 75kHz, fmod = 1kHz	25	30	-	dB
5	Audio output	$\Delta$ 22.5kHz, fmod = 1kHz		80		mV
6	T.H.D	$\Delta$ 22.5kHz, fmod = 1kHz		0.5	1.5	%

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## 4. Standard test condition

NO	ITEM	MONO	STEREO
1	Modulation Frequency	1kHz, 22.5kHz/dev $V_{RF} = 1mV$	1kHz, 75kHz/dev including 10% pilot
2	Test Frequency	98MHz	
3	RF Input level	60dB $\mu$ V	

## 5. DC Specification

ITEM	Test condition	SPEC			
		MIN	TYP	MAX	UNIT
Supply Voltage	ON Station	2.5	3.0	5	V
Supply Current	ON Station	8.5	10	13	mA
Supply Current	OFF Station		25		$\mu$ A

## 6. Demensions

- 1) UNIT : 13(L) x 12(W) x 1.8(H) mm + 0.2 mm
- 2) Packing : 283(L) x 150(W) x 15(H) mm (200 PCS)
- 3) M/CARTON : 312(L) x 166(W) x 55(H) mm (1,000 PCS)

## 7. Marking : STAMP

202

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## 8. Electrical Interface

Terminal	NAME	Inter face	I/O	Description
1	GND	GND	-	
2	DATA	Digital	I/O	Bus data line Input/output.
3	CLK	Digital	I	Bus clock line Input.
4	READ/WRITE	Digital	I	Read/write control input
5	BUSMODE	Digital	I	Bus mode select input
6	BUSENABLE	Digital	I	Bus enable input
7	SW1	Digital	O	Software programmable port 1.
8	OUT-L	Analog	O	Lch. Audio output.
9	OUT-R	Analog	O	Rch. Audio output.
10	GND	GND	-	
11	VCC	Analog	I	3V VCC Input line.
12	ANT	Analog	I	RF Input line.

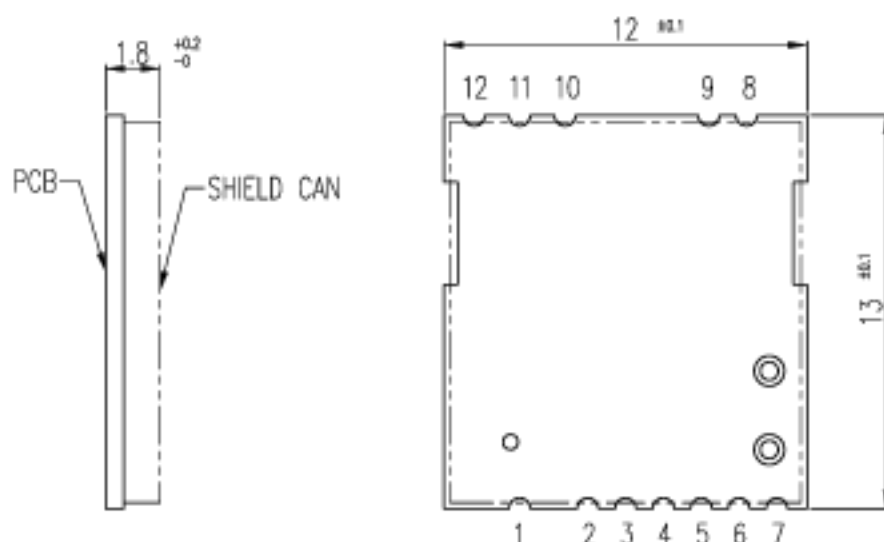
※ BUSMODE(5): GND --- IIC MODE

VCC --- 3 Wire serial interface bus MODE

※ Need the PULL UP (47 k $\Omega$ ) FOR DATA (2) line

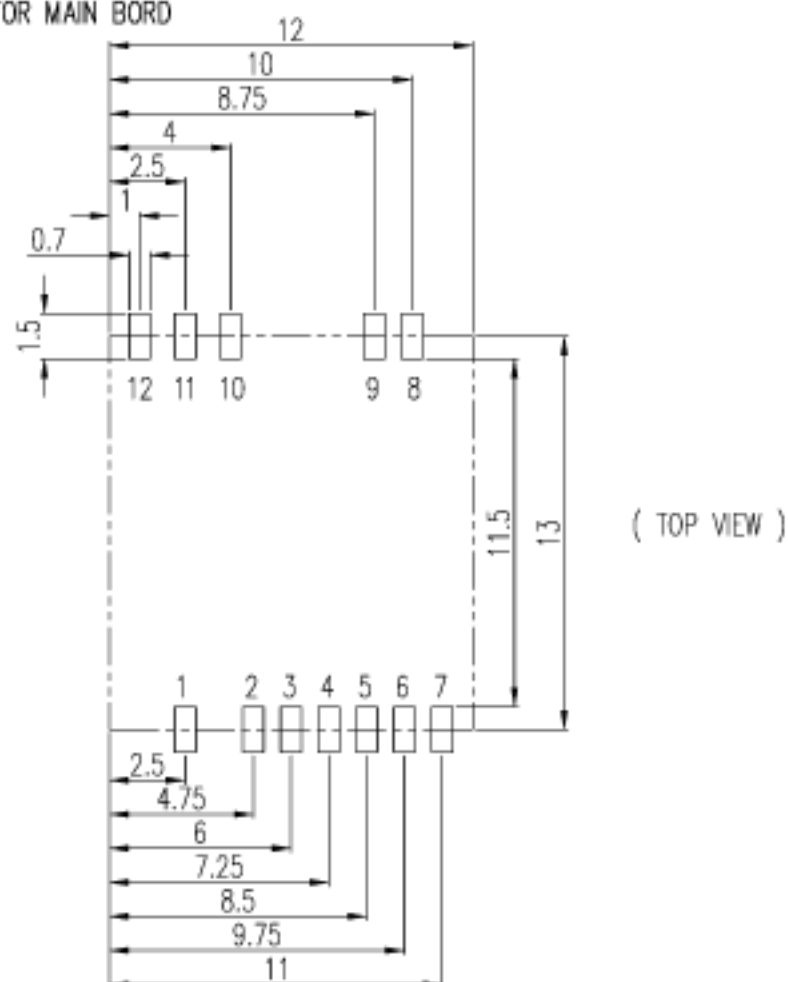
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## 9. OUT LINE SPECIFICATION



## 10. SOLDER LAND LAY OUT FOR MAIN BOARD

- 1) GND
- 2) DATA (47 Kohm Pull Up)
- 3) CLK
- 4) Write/Read
- 5) Bus Mode
- 6) Bus Enable
- 7) SW1
- 8) Out-L
- 9) Out-R
- 10) GND
- 11) Vcc
- 12) ANT



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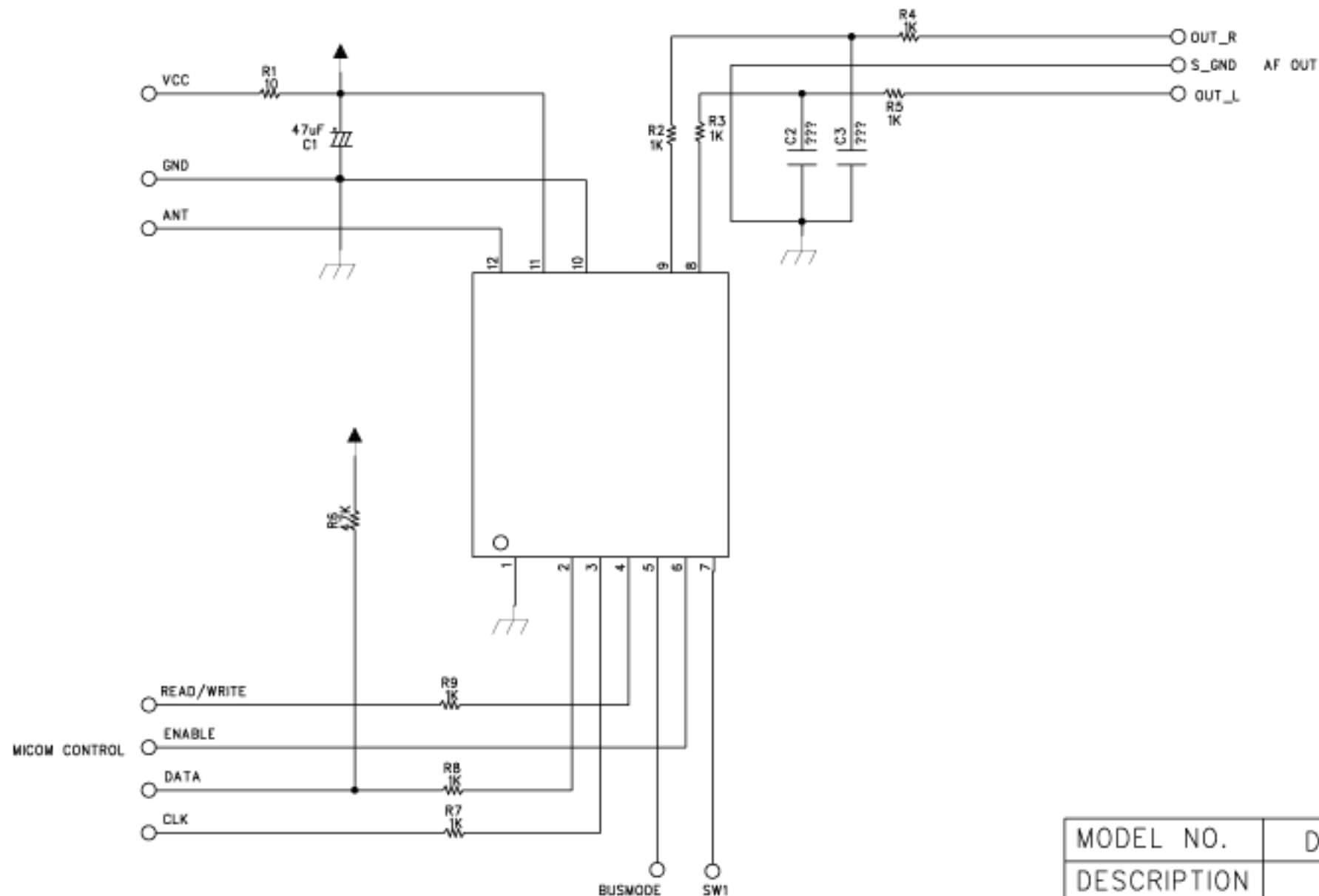
OUT LINE DRAWING

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