

	PRODUCT SPECIFICATION	DESIGNED	CHECKED	APPROVED
	FM TUNER			

1. Applicable product P/No: ATM-350 FM MODULE

2. Appearance

Unit shall not have any excessive strain, bruise, uneven plating etc, which decrease its commercial value

3. General Specifications

No.	Item	Specification	
1	Frequency Range	KR/USA/Europe/CCIR	87.5 ~ 108MHz
		Japan	76 ~ 91 MHz
2	Receiving System	KR/USA/Europe/CCIR	Upper Super Heterodyne System
		Japan	Lower Super Heterodyne System
3	IF Frequency	225KHz	
4	Operating Temperature	-10 ~ +75°C	
5	ANT Input Impedance	75Ω Unbalanced	

4. Test Modulation

No.	Item	MONO	STEREO
1	Modulation Frequency	1KHz, 75KHz/dev	1KHz, 75KHz/dev (PILOT=10%, Fpilot=19KHz)
2	RF Input Level	60dB	

5. DC Specification

Item	Test Condition	Specification			
		MIN	TYP	MAX	UNIT
Supply Voltage(Vcc)	Off station	2.6	2.8	5.0	V
Consumption Current			11.4	14.4	mA

PRODUCT SPECIFICATION

FM TUNER

6. Electronic Specification

No.	Item	Test Condition	Specification			
			MIN	TYP	MAX	UNIT
1	Usable Sensitivity (S/N 30dB)	90.0MHz	-	6	12	dBuV
		98.0MHz	-	6	12	dBuV
		106.0MHz	-	6	12	dBuV
2	S/N Ratio	22.5KHz,DEV	55	60	-	dB
3	T.H.D	1KHz, 75KHz/DEV	-	0.5	1.5	%
4	Audio Output Level	1KHz, 22.5KHz/DEV	60	75	90	mV
5	Image Rejection	f=76 to 108MHz	24	30	-	dB
6	Stereo Separation	1KHz,75KHz/DEV	25	30	-	dB

7. Low and High Temperature Storage Test

After storage at  $-20^{\circ}\text{C}$  or  $+75^{\circ}\text{C}$  for each 96hours recovery in the room, Tuner must meet specification as approved.

8. Humidity

After exposure of 96hours in a chamber of temperature at  $+40^{\circ}\text{C}$  and relative humidity 90%, then after 4hours exposure in normal temperature and humidity, tuner must meet specification as approved.

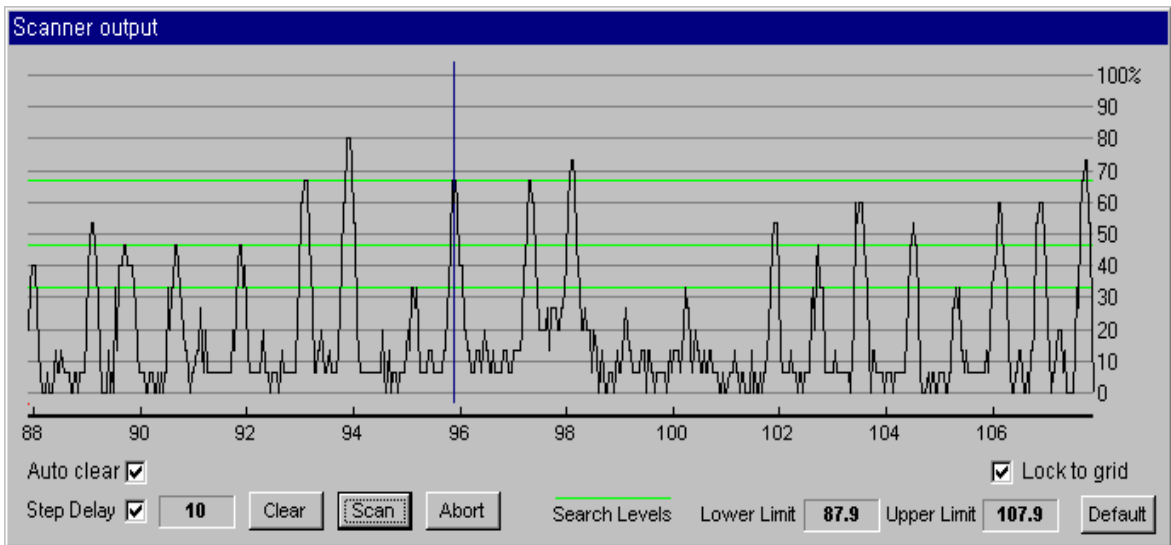
9. Drop Test

A packed unit shall be dropped on the board from 1m in height and this test shall be performed on each plane of the package.  
After this test, there shall be No Looseness, etc.

10. Temperature Range

Nothing shall be found abnormal in operation a range  $-10^{\circ}\text{C}\sim+60^{\circ}\text{C}$ .

## ATM-350 Module Driving by I<sup>2</sup>C Program



TEA5767 test program V2.2

Mute  Mute Left  Mute Right  Standby  Bus Enable  I2C mode  Update

88 90 92 94 96 98 100 102 104 106

95.900 66% AST Search stop: 1 2 3 SCAN

1 2 3 4 5 6 7 8

Area:  Euro  USA  Japan

X-tal:  13 MHz  6.5 MHz  32.768 kHz

De-Emphasis:  50 us  75 us

Port 1  Mono  Port 2  Softmute  High Injection  HCC  Search Indicator  SNC

WRITE data: C0 2D D6 50 10 00

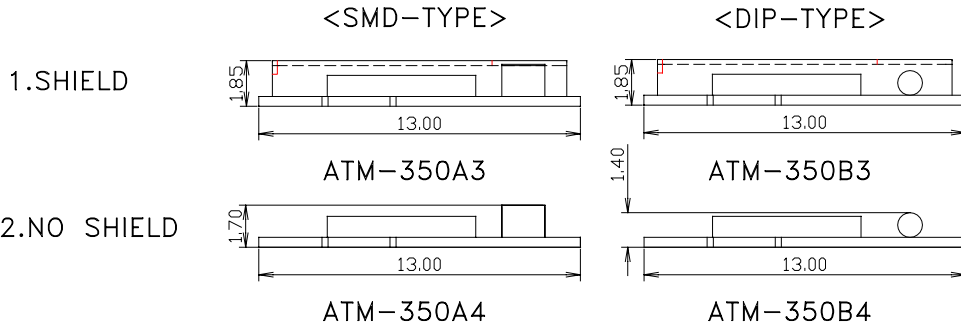
Data byte 1 Data byte 2 Data byte 3 Data byte 4 Data byte 5

READ data: C1 AD D6 B6 A0 00 Level: 10 IF counter: 36

Data byte 1 Data byte 2 Data byte 3 Data byte 4 Data byte 5

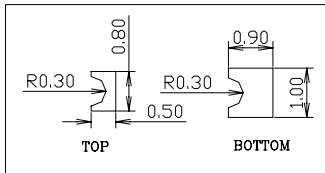
PRODUCT SPECIFICATION

UBI-HUMAN CO.,LTD.

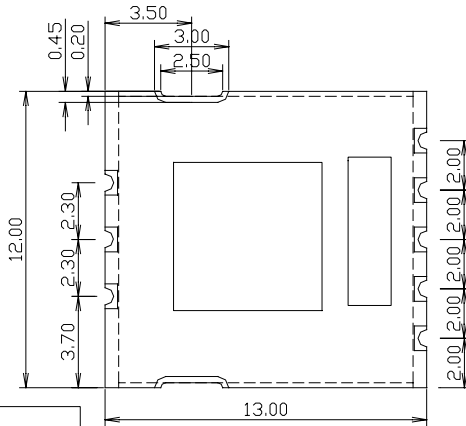


- 1.RFGND
- 2.ANT
- 3.VCC

LAND SIZE



- NOTE**
- 1.UNLESS OTHERWISE SPECIFIED TOLERANCES ARE +/- 0.1
  - 2. LOT NO SHALL BE COMPLIED WITH UBI-HUMAN STANDRD
  - 3.UNIT : mm

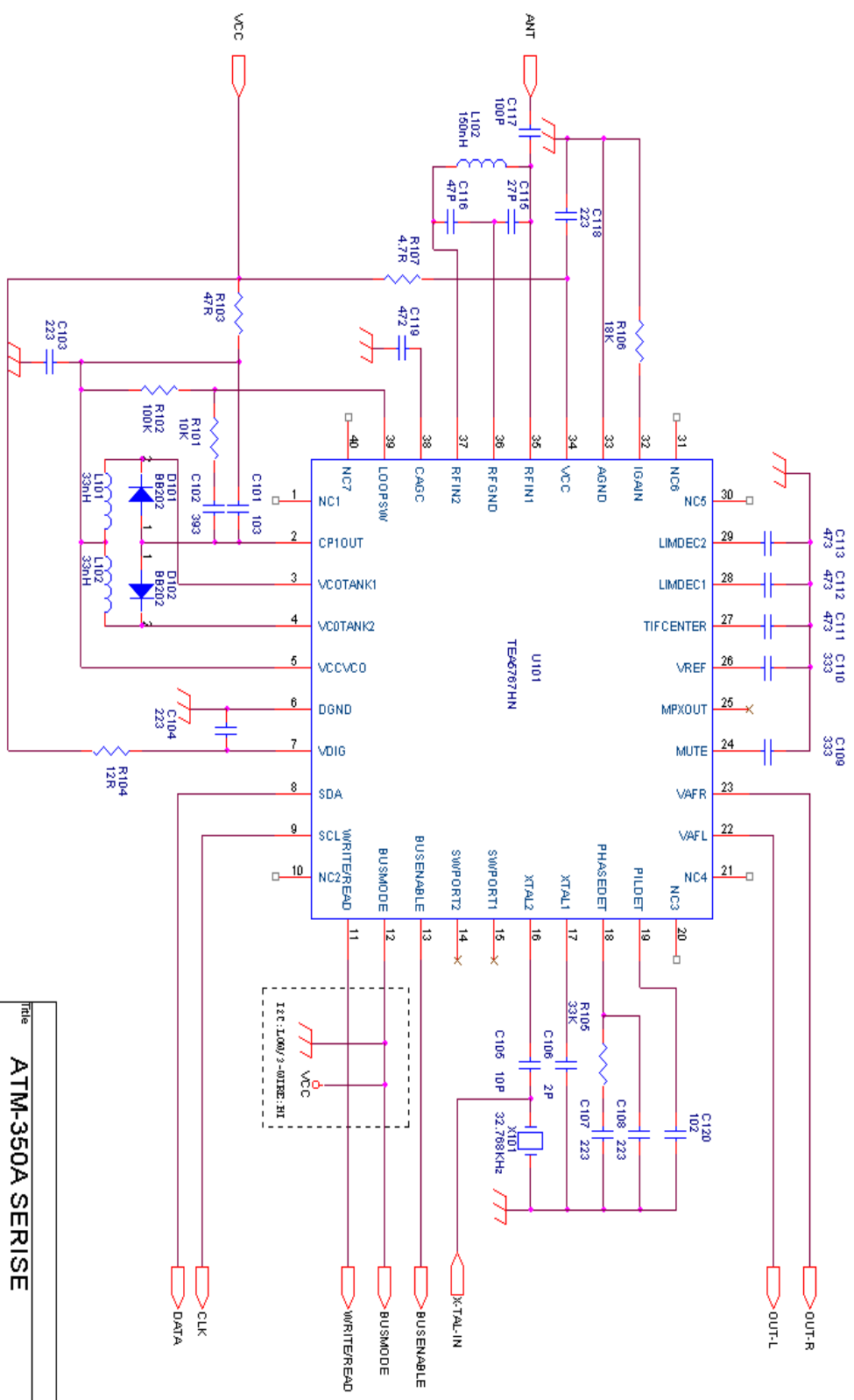


- 4.R-OUT
- 5.L-OUT
- 6.GND
- 7.CLOCK
- 8.DATA

EXTERNAL TERMINAL

1	RFGND	6	GND
2	ANT	7	CLOCK
3	VCC	8	DATA
4	R-OUT		
5	L-OUT		

1		FR-4 0.4T	1			
NO.	NOMENCLATURE	MATERIAL	Q,ty	SPECIFICATION	TREAT	REMARKS
A M E N D				THIRD ANGLE DRAW.	SCALE 1/1	04. 05.29.
	DATE	CODE	MEMO	SIGN	REF. NO.	
	DRAW.	DESIGN	DET.CHE.	APPRO	NAME	
				FILE NAME	ATM-350 SERIES	



Title		<b>ATM-350A SERISE</b>	
Size	Document Number		
A3	CIRCUIT		
Date:	Friday, December 05, 2003	Sheet	1 of 1
Rev		A1	