FOR	Company	
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DATA SHEET

AWM662F RX

5.8 GHz Wideband FM Receiver

承認	承認	品保	工程
Dr. T.H. Chen	Ben Huang	Sandy Chen	Shih Chuan Lin
Approve	Approve	QA	E/E

Pb Lead Free

AIRWAVE TECHNOLOGIES INC.

4F, No.9 Industry E. 9th RD., Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C. *TEL : 886-3-5778099 Fax 886-3-5778199*
www.airwave.com.tw

Revision History

Version	Item	Change	Reason	Date
0.1	Initial version.			09/09/2010
1.0				01/10/2011

Contents

1. Descriptions:

Airwave 5.8GHz Audio/Video wireless RF module contains one Transmitter and one Receiver. Using of the most popular 5.8GHz ISM band and being designed with high reliability, Airwave RF module is compliance with the criteria of FCC and R&TTE which can transmit/receive a wide band audio & video signals up to 300 feet in open area. AWM622I RX module uses down conversion concept to convert the 5.8GHz RF Signal to 480 MHz IF signal, and then obtain base band via PLL FM demodulation IC by Airwave AWI5822.

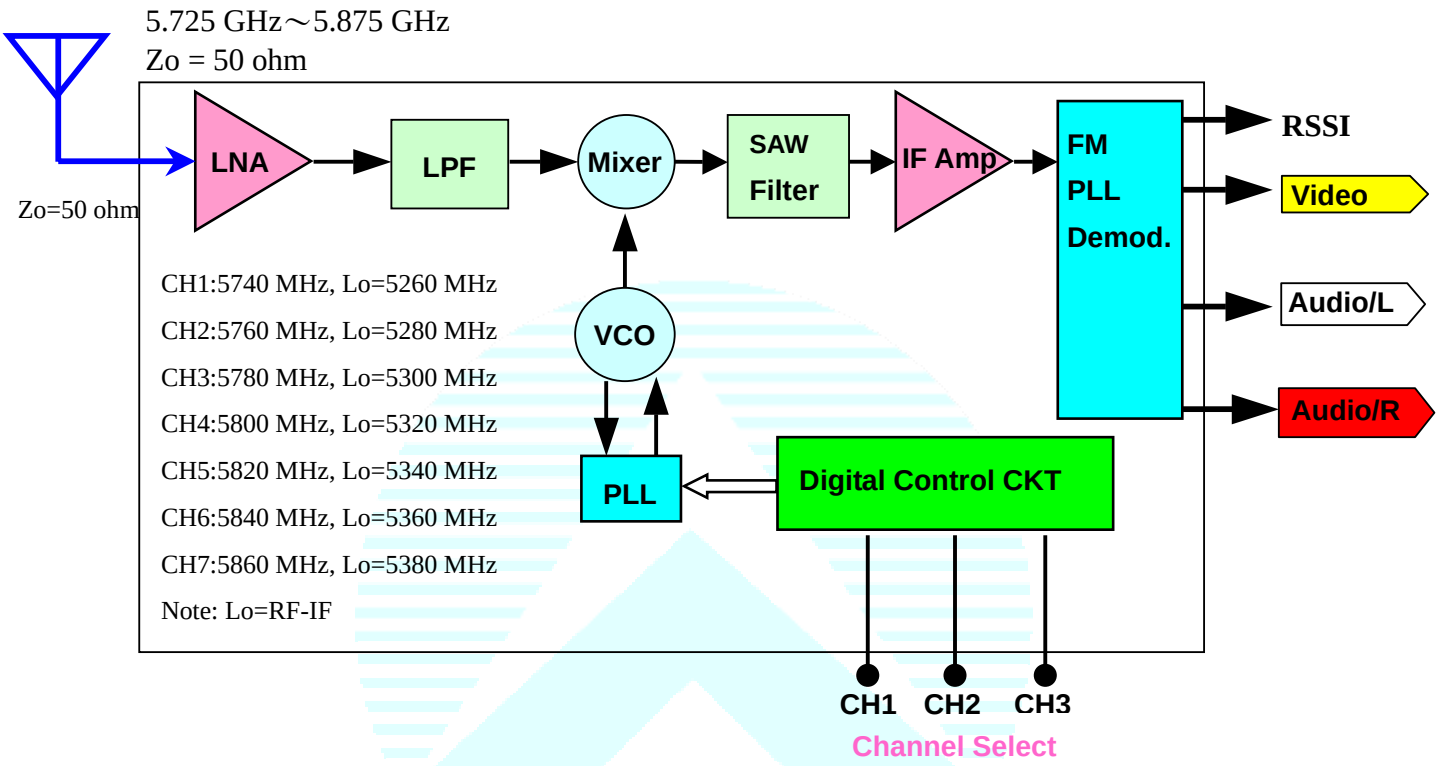
2. Feature:

- Worldwide 5.8GHz ISM band (5725 MHz～5875 MHz).
- Conform to R&TTE & FCC stipulation.
- Compatible with both NTSC and PAL video formats.
- Compact size and low power consumption.
- Highly efficient FM-FM modulation/demodulation scheme.
- Integrating Audio/Video input and output into one module base band PCB.
- Provide with 7 selectable channels.
- Received signal strength indicator (RSSI).

3. Application:

- **AV Sender**
- **Baby Monitor**
- **Surveillance**
- **Wireless Camera**

4. Function block:



5. PIN define

TOP View:

Pin 013 RSSI

Pin 01	**VCC**
Pin 02	**Bypass**
Pin 03	**GND**
Pin 04	**Audio_R**
Pin 05	**Audio_L**
Pin 06	**Video**
Pin 07	**B2**
Pin 08	**B1**
Pin 09	**B0**

GND	Pin 10
RF IN	Pin 11
GND	Pin 12

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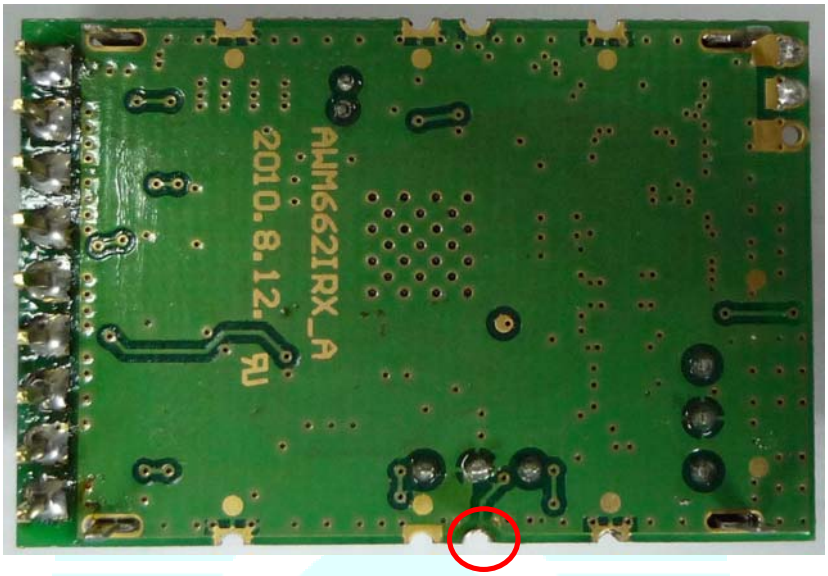
Bottom View



6. PIN descriptions:

PIN	NAME	Descriptions
01	VCC	DC +5V power supply in).
02	BYPASS	Bypass capacitor.
03	GND	Ground.
04	Audio_R	Right sound signal output.
05	Audio_L	Left sound signal output.
06	Video	Video signal output.
07	B2	Channel select.
08	B1	Channel select.
09	B0	Channel select.
10	GND	Ground.
11	RF IN	RF received signal input
12	GND	Ground
13	RSSI	RSSI Voltage output

Channel selection are seven channels by Pin7, Pin8 and Pin 9 for dip sw mode As shown below：

Table1:

Pin07 B2	Pin08 B1	Pin09 B0	Descriptions	Receiver Frequency
0	0	0	Pin 07, Pin 08, Pin 09 connect to GND.	5740MHz **(CH1)**
0	0	1	Pin 07 and Pin 08 connect to GND, Pin 09 OPEN.	5760MHz **(CH2)**
0	1	0	Pin 07 and Pin 09 connect to GND, Pin 08 OPEN.	5780MHz **(CH3)**
0	1	1	Pin 07 connect to GND, Pin 08 and Pin 09 OPEN.	5800MHz **(CH4)**
1	0	0	Pin 08 and Pin 09 connect to GND, Pin 07 OPEN.	5820MHz **(CH5)**
1	0	1	Pin 08 connect to GND, Pin 07 and Pin 09 OPEN.	5840MHz **(CH6)**
1	1	0	Pin 09 connect to GND, Pin 07 and Pin 08 OPEN.	5860MHz **(CH7)**

7. Absolute maximum ratings:

RF/ DC Parameters		Min.	Typ.	Max.	Unit
Storage Temperature Range		**-25**	**-**	**85**	**°C**
Supply voltage		**4.5**	**-**	**5.5**	**V**

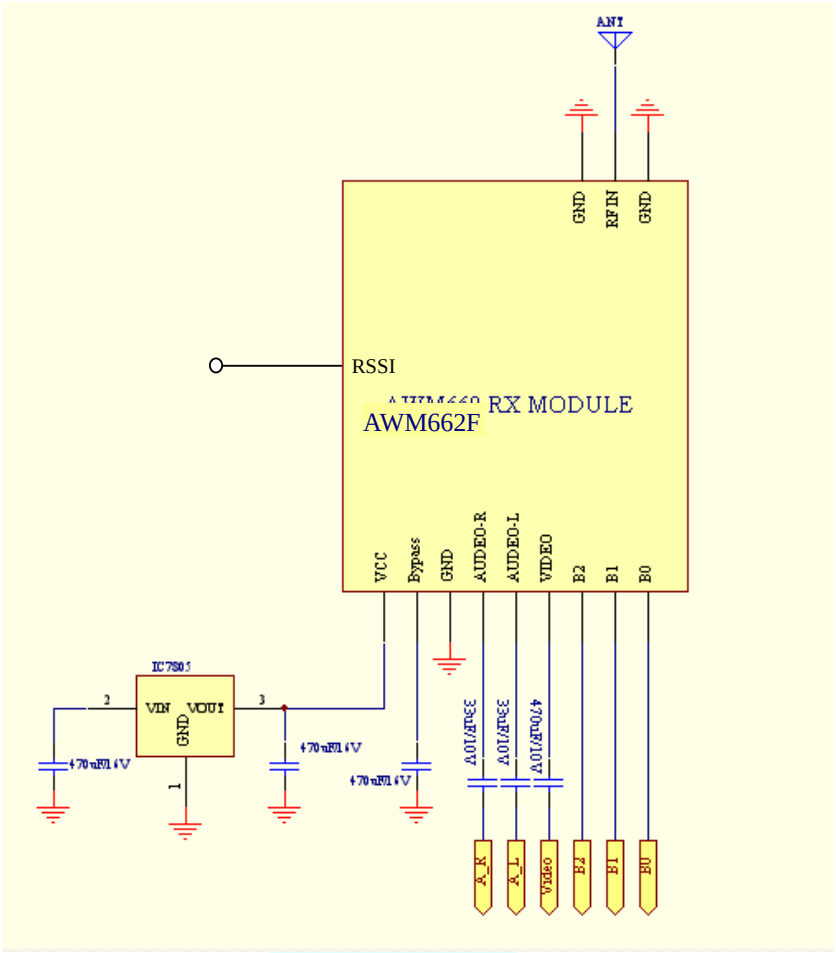
The maximum rating must not be exceeded at any time. Do not operate the device under conditions outside the above.

8. DC/AC Electrical characteristic:

(VCC=DC +5V, 25°C)

RF/ DC Parameters	Min.	Typ.	Max.	Unit
Supply voltage	4.95	5	5.05	V
Supply current	190	200	210	mA
RF Input Level	-85		-10	dBm
Operating temperature	-10	-	60	°C
Operation Frequency Range	5725		5875	MHz
Channel Selection	PLL Synthesizer, 7CH (See Tabl1)			
Channel Frequency	CH1： 5740 MHz, CH2： 5760 MHz CH3： 5780 MHz, CH4： 5800 MHz CH5： 5820 MHz, CH6： 5840 MHz CH7： 5860 MHz.			
Video-Audio Modulation/Demodulation Type	FM-FM			
Video				
Output Signal Level	$1V_{P-P}$, typ. (+/-0.2Volt)			
Frequency Response	+/-5 dB, max. 50Hz~5.5MHz			
S/N Ratio (100KHz, $1V_{P-P}$ Sine Wave)	40dB, min.			
Audio				
Output Frequency Range	50Hz ~ 20KHz			
Output Signal Level (Modulation Signal : 1kHz Sine Wave)	2Vp-p			
RSSI				
RSSI output voltage (RF input -30dBm~-90dBm)	0.4~2.2V			

9. Test circuit:



10. Dimension: (Unit:mm)