



大紘科技

AWM6W1V_TX

5.8 GHz AHD Wideband FM Transmitter

Date :2016/7/13

Version: 0.1

Doc. no : AHD005

DATA SHEET



AWM6W1V_TX

5.8GHz AHD Transmitter Module

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1. Descriptions:

Airwave 5.8GHz AHD wideband video wireless RF modules contain one Transmitter and one Receiver. Using of the most popular 5.8GHz ISM band and being designed with high reliability, Airwave RF modules, AWM6W1V_TX and AWM6W2V_RX, can transmit/receive a wide band video signals up to 70M in open area.

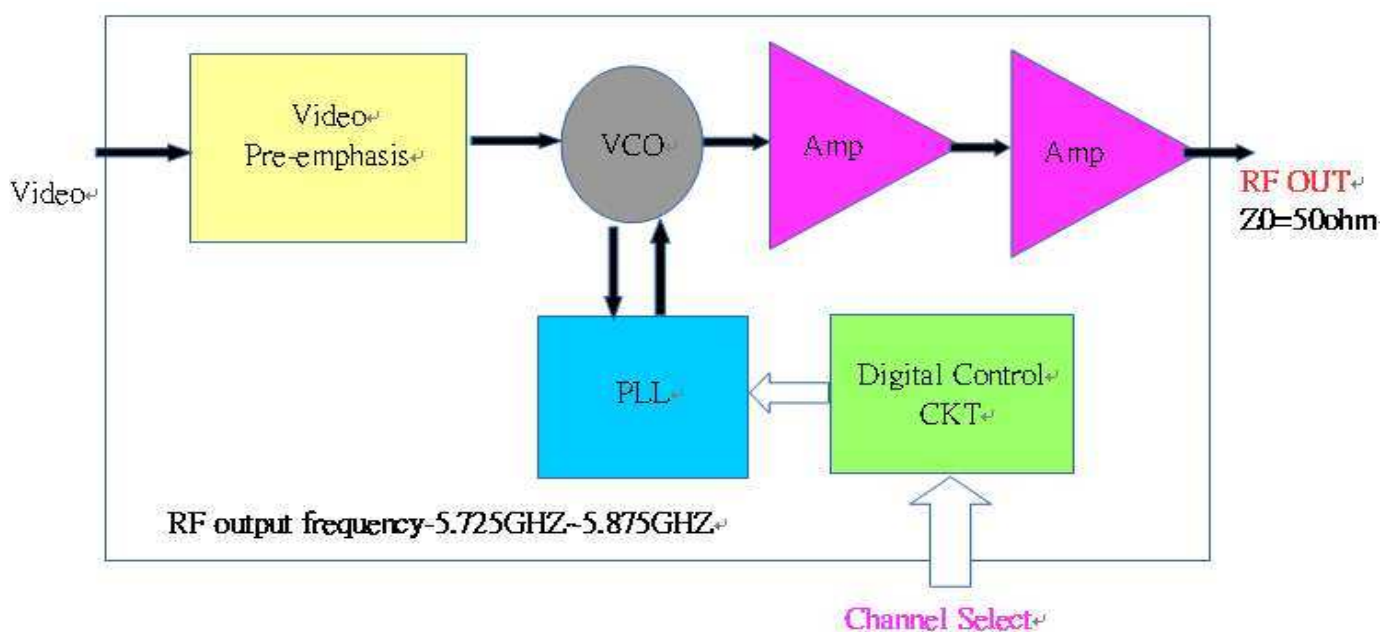
2. Feature:

- Worldwide 5.8GHz ISM band
- Compact size and low power consumption
- Highly efficient wideband FM modulation scheme
- Compatible with AHD1.0 video formats
- Integrated high power PA and video pre-emphasis in a single module.
- 7 selectable RF channels
- DIP or slide switch for channel selection

3. Application:

- Wireless AHD Sender
- Surveillance
- Wireless Camera

4. Function block





5. PIN Definition

Pin01	BIT2
Pin02	BIT1
Pin03	BIT0
Pin04	NC
Pin05	NC
Pin06	Video
Pin07	Vcc
Pin08	Bypass
Pin09	GND



RFout Pin10

6. PIN Descriptions

AWM6W1V TX

PIN	NAME	Descriptions	PIN	NAME	Descriptions
01	BIT2	see note1	06	Video	Video Input
02	BIT1		07	VCC	DC +5V power supply in
03	BIT0		08	BYPASS	Bypass capacitor
04	NC		09	GND	Ground
05	NC		10	RFout	RF output

Note1:

Pin1	Pin2	Pin3	Descriptions	Frequency
BIT2	BIT1	BIT0		
0	0	0	Pin 1, Pin 2, Pin 3 connect to GND.	5740MHz (CH1)
0	0	1	Pin 1 and Pin 2 connect to GND, Pin 3 OPEN.	5760MHz (CH2)
0	1	0	Pin 1 and Pin 3 connect to GND, Pin 2 OPEN.	5780MHz (CH3)
0	1	1	Pin 1 connect to GND, Pin 2 and Pin 3 OPEN.	5800MHz (CH4)
1	0	0	Pin 2 and Pin 3 connect to GND, Pin 1 OPEN.	5820MHz (CH5)
1	0	1	Pin 2 connect to GND, Pin 1 and Pin 3 OPEN.	5840MHz (CH6)
1	1	0	Pin 3 connect to GND, Pin 1 and Pin 2 OPEN.	5860MHz (CH7)
1	1	1	Pin 1, Pin 2, Pin 3 OPEN.	5860MHz (CH7)

Note 2:

Channel Setting:

	MIN.	TYP.	MAX.
High Voltage	2.5V	3V	3.6
Low Voltage	-0.3V	0V	1V

Minimum settling time : < 100ms

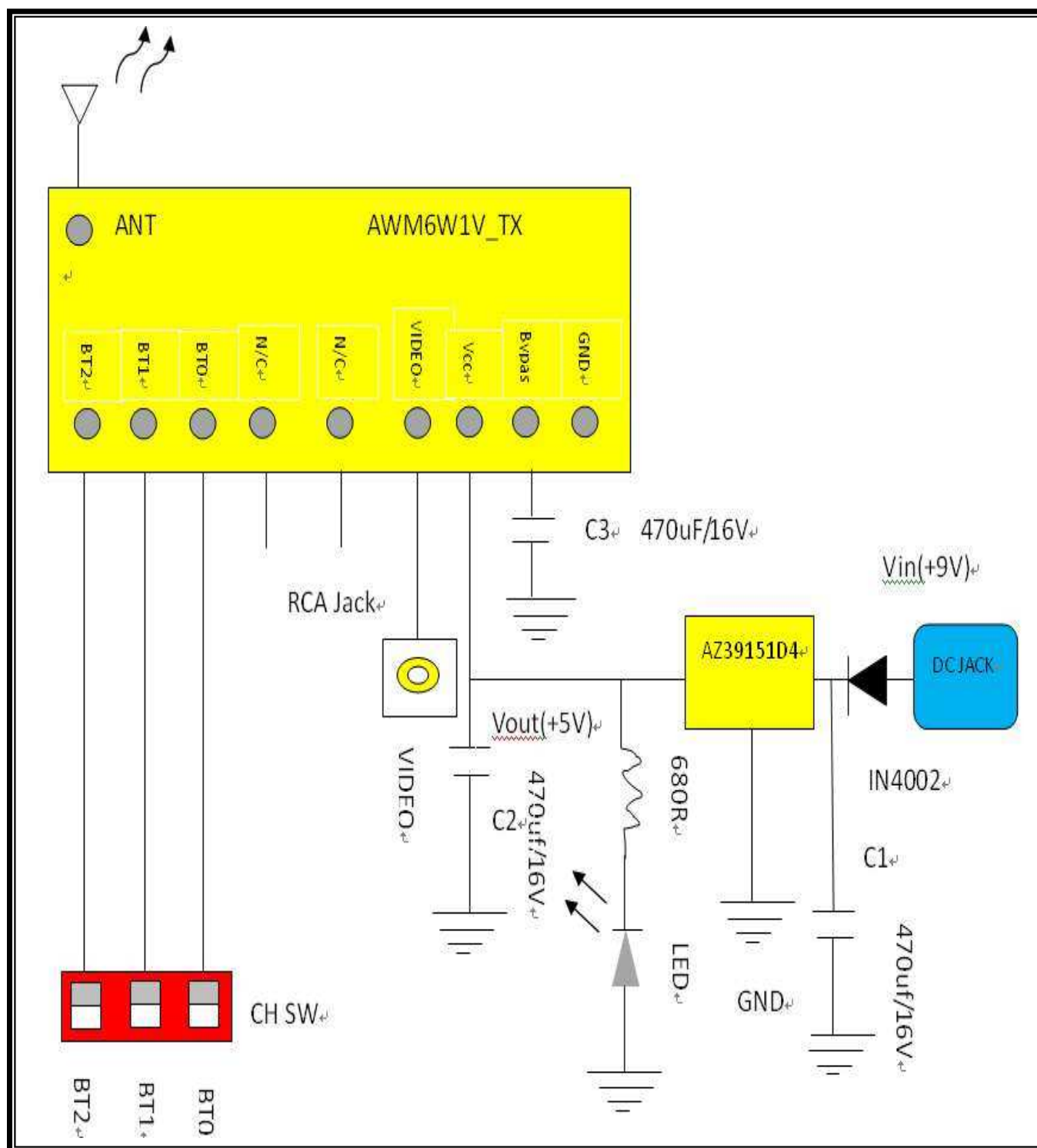
**7. Absolute Maximum Ratings**

Parameters	Model.	Min.	Typ.	Max.	Unit
Storage Temperature Range	AWM6W5V_TX	-40	-	85	℃
Supply voltage	AWM6W5V_TX	-0.5	-	5.5	V

8. DC/AC Electrical characteristic:

RF/ DC Parameters		Min.	Typ.	Max.	Unit
Supply voltage (DC)	AWM6W1V_TX	+4.8		+5.2	V
Supply current	AWM6W1V_TX	110	125	140	mA
RF output power	AWM6W1V_TX	13	14	15	dBm
Contain of Heat Sink (Temperature 25℃)					
Operating temperature		-10		50	℃
RF Deviation- Video (Input 10KHz, 1Vpp)	AWM6W1V_TX		3.9		MHz
Antenna Port Impedance			50		Ohm
5.8GHz Carrier Frequency Accuracy			±300		kHz
Operation Frequency Range		5725		5875	MHz
Channel Selection		PLL Synthesizer, 7CH (See Tab11)			
Channel Frequency		Ch1=5740, CH2=5760, CH3=5780 Ch4=5800, CH5=5820, CH6=5840 Ch7=5860			
Video Modulation/Demodulation Type		FM			

9. Test circuit:



AWM6W1V_TX Demo Board DIP SW



10. Test circuit BOM

Component	Quantity	Designator
E/CAP 470uF, 8*11 16V	3	C1, C2, C3
DIODES 1N4001, 1A/100V	1	D1
LED	1	D2
L7805CV Regulator	1	IC1
RCA JACK x1	1	JACK2
DC POWER JACK(LF), DS-210B 5.5mm	1	JACK1
DIP RESISTOR 680R, $\pm 5\%$ 1/4W (LF)	1	R1
DIP SWITCH x3, DPL-04-V (LF)	1	SW1



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11. Dimensions:

