AVM-T10R10

2.4 GHz A/V Modules

Specification

www.summitek.com.tw

APPLICATIONS & FEATURES

AVMT10 is 2.4GHz A/V modules, which use FM modulation technology to provide ISM band wireless audio and video transmission. Multi-channels are specially designed to enhance the function of channel auto-switching and digital PLL as well as µP Technology.

- **Major applications:**
  Wireless Audio/ Video Transmission
  Wireless Security Surveillance

- **Features:**
  Compact size & low cost (module includes RF & Baseband all-in-one)
  Provides quality video and mono audio transmission
  Multi-channel (extra 4 backup channels for preventing interference)
  Low power consumption (50mA/ 3.3V DC)
  Auto-scan function (dwell time is adjustable by a IR remote controller)
  Easy to design-in (Baseband interface and antenna port are drawn out from pitch pins on modules)
  Built-in IR Remote Control Function for channel selecting, deleting and dwell time adjusting

[Functions of IR Remote Control]

a. Channel switch: selecting channels in sequence
b. Auto-scan: automatically displaying channels in use
c. Adjustable Dwell Time
   [Scan Slower]: makes dwell time longer. Maximum is 10 seconds.
   [Scan Faster]: makes dwell time shorter. Minimum is 0.1 seconds.
d. [Channel Cancel]: skipping channels not in use
e. 4 – 8 Switch: entering 8-channel mode
f. Reset (to factory default):
   1. only original Ch1 ~ Ch4 available
   2. manual channel-switching
   3. all cancelled channels recovered

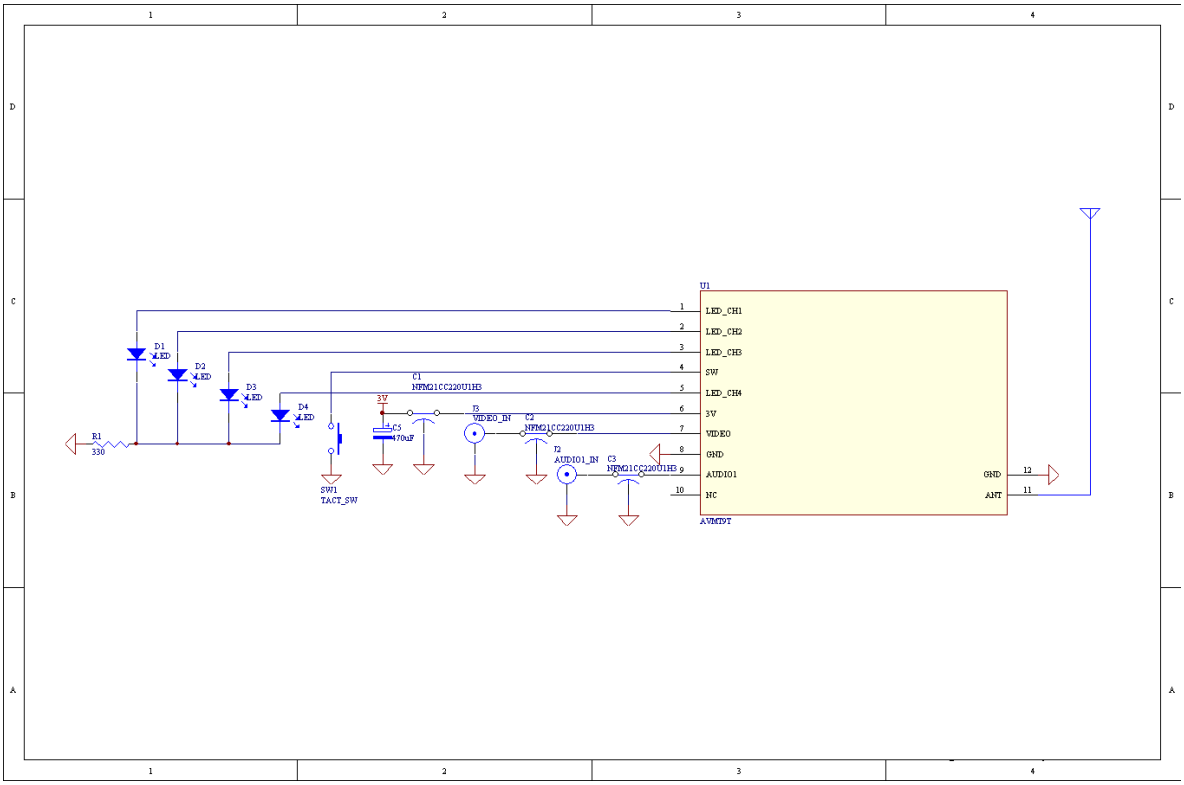
● TX MODULE - AVMT10T/ D

ITEM	SPECIFICATION	REMARK
Tx Power	10dBm	+3/-0dBm
Channel Number	4 (2410, 2430, 2470, 2490)	2400~2483MHz
Frequency Stability	±100KHz	Typical
Video Input Level	1Vp-p	Typical
Video Input Impedance	75 Ohm	Typical
Audio Input Level	4Vp-p@1KHz	Typical
Audio Input Impedance	>10K Ohm	1KHz
Supply Voltage	3.3V	+/- 0.05V
Current Consumption	50mA	Typical
Antenna Port	Half Pitch Pin Header	1.27mm Pitch
Baseband Interface	Half Pitch Pin Header	1.27mm Pitch
Dimension (mm)	23W x 27D x 6H	
Operating Temperature	-30 ~ 70 ° C	

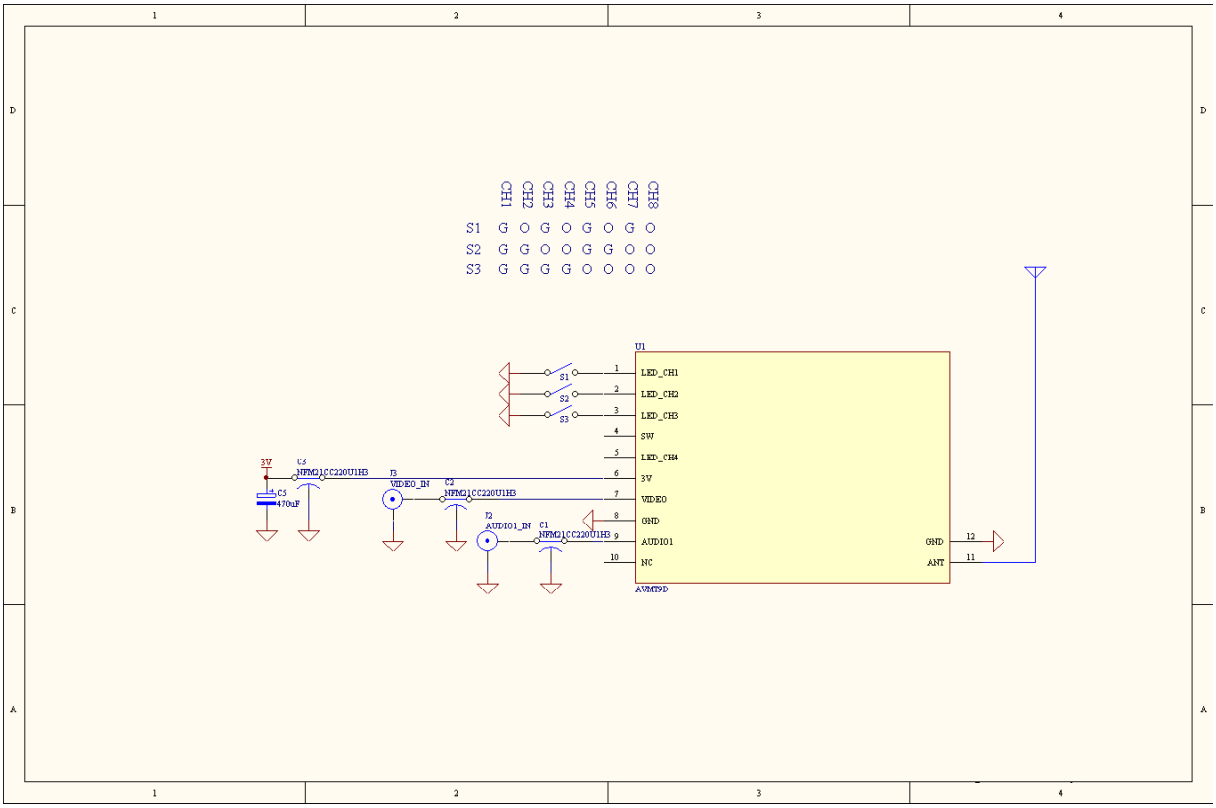
● RX MODULE - AVMR10T/ D

ITEM	SPEC	REMARK
Rx Sensitivity	-90dBm	+3/-0dBm
Channel Number	4 (2410, 2430, 2450, 2470)	2400~2483MHz
Lo Stability	±100KHz	Typical
Video Output Level	1Vp-p@75 Ohm load	+/-0.15V
Video Output Impedance	75 Ohm	Typical
Video Differential Phase	10 °	Typical
Video Differential Gain	5%	Typical
Audio Output Level	4Vp-p@1KHz	Typical
Audio Output Impedance	1K Ohm	Typical
Audio SNR	45dB@1KHz 4Vp-p	+/-3dB
Supply Voltage	5V	+/- 0.1V
Current Consumption	150mA	Typical
Antenna Port	Half Pitch Pin Header	1.27mm Pitch
Baseband Interface	Half Pitch Pin Header	1.27mm Pitch
Dimension (mm)	42.5W x 35D x 10.3H	
Operating Temperature	-30 ~ 70 ° C	

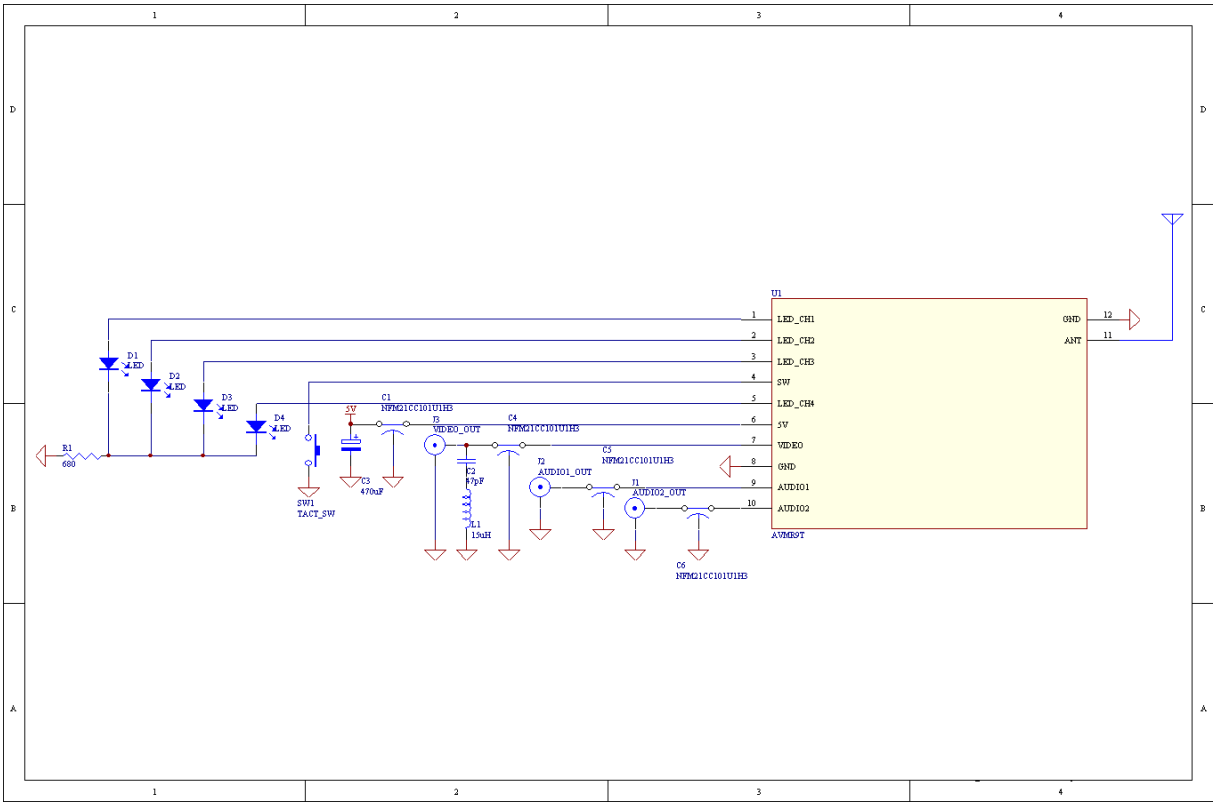
AVMT10T APPLICATION CIRCUITS (TACT)



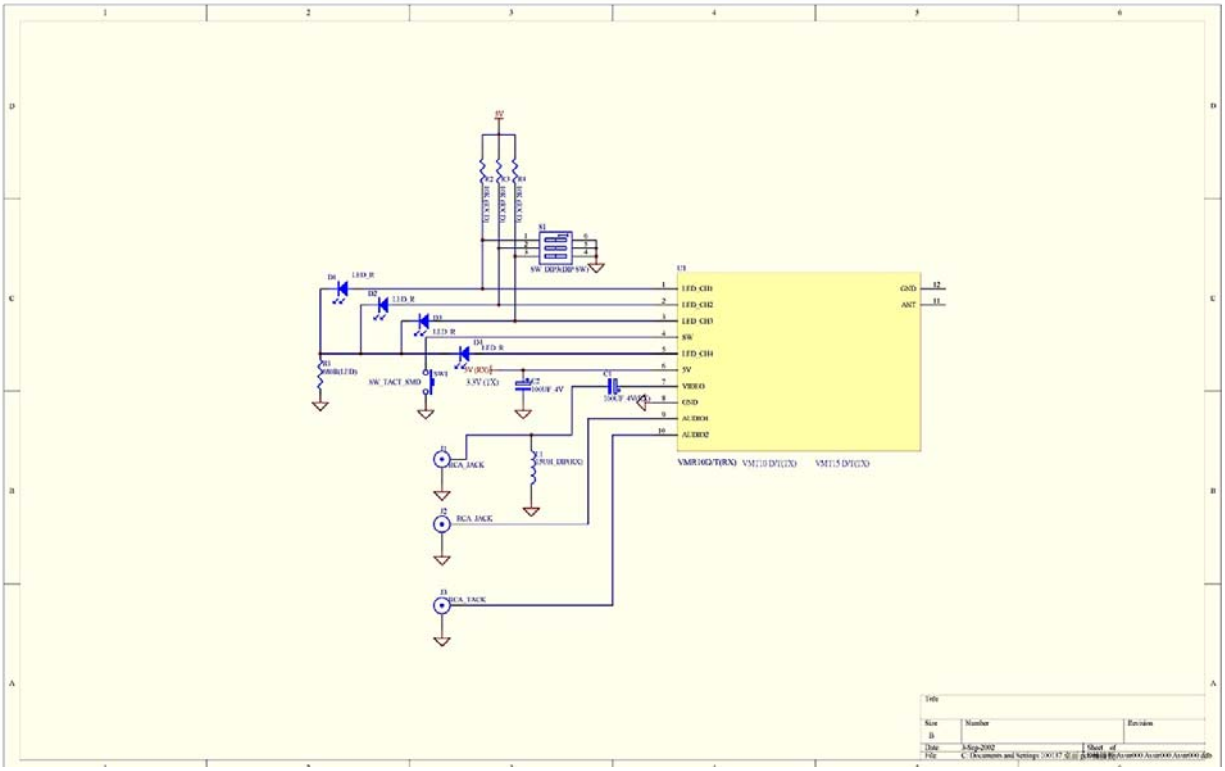
AVMT10D APPLICATION CIRCUITS (DIPSWITCH)

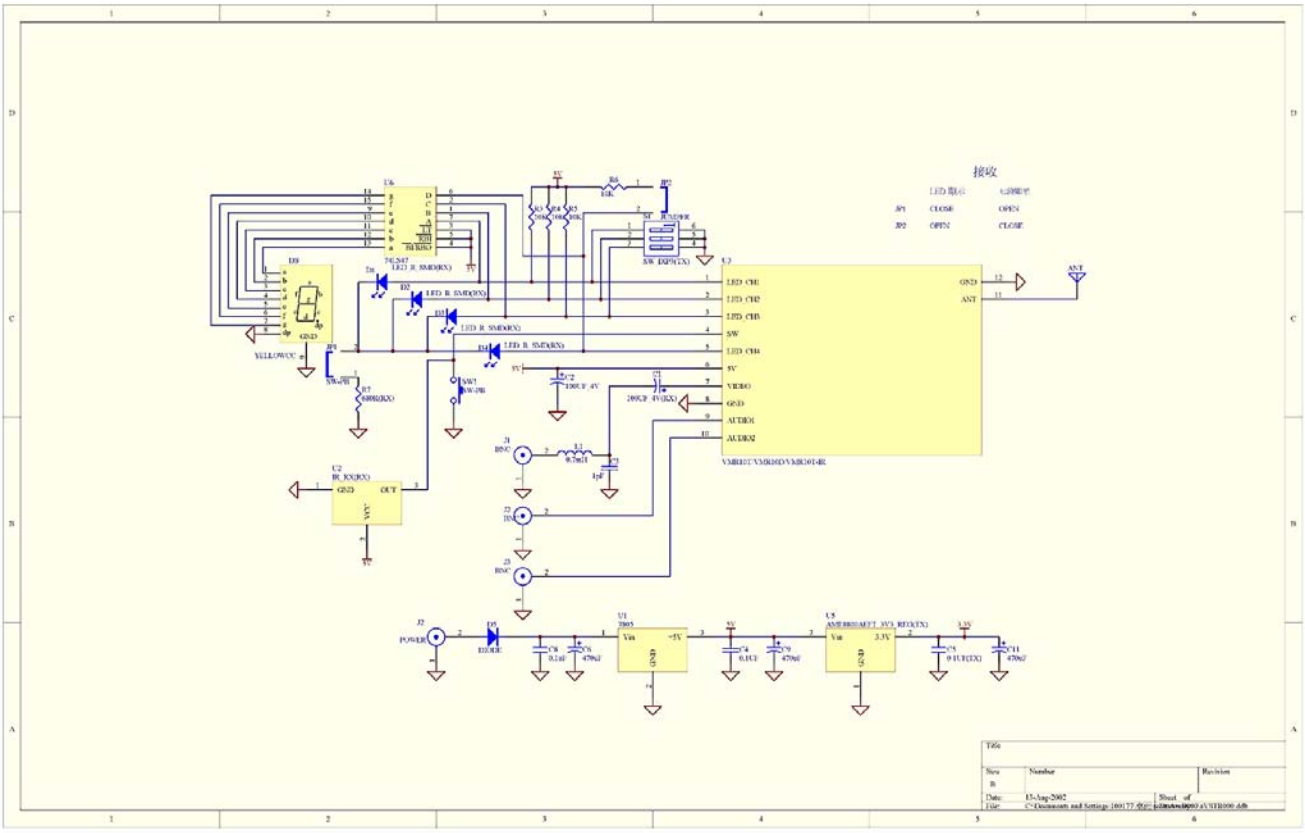


AVMR10T APPLICATION CIRCUITS (TACT)



AVMR10D APPLICATION CIRCUITS (DIPSWITCH)





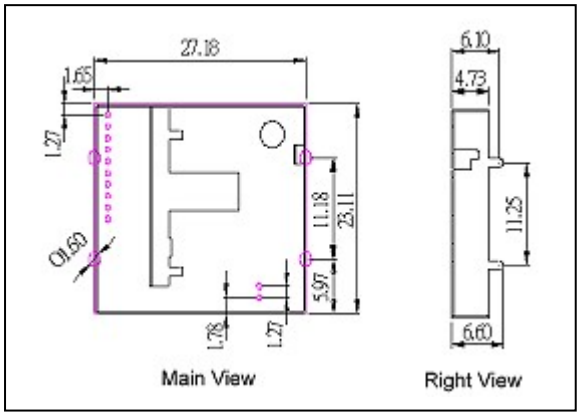
RF LAYOUT APPLICATION NOTES

(1) The antenna port impedance is 50 ohm, e.g.
1.25mm-wide microstrip line, impedance 50 ohm - under 0.8mm FR4 PCB;
3mm-wide microstrip line, impedance 50 ohm - under 1.6mm FR4 PCB.

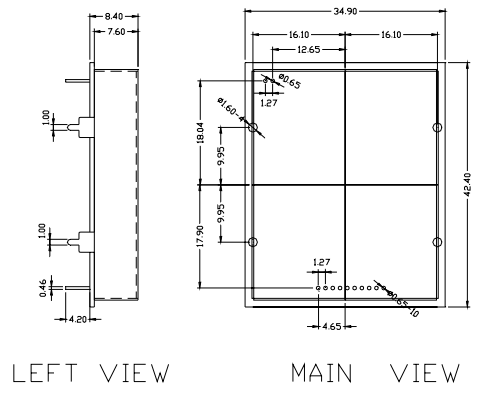
(2) Microstrip line is a transmission line on PCB with grounded backside.

(3) The thicker the PCB is, the higher the insertion loss will be.

FOOTPRINT & DIMENSIONS (TOP VIEW)



[AVMT10T/ D]



[AVMR10T/ D]