



DIY Module Series

# FPV Video Transmitter

## FS13T16M

FPVspeed™

1120~1360MHz

### KEY FEATURES

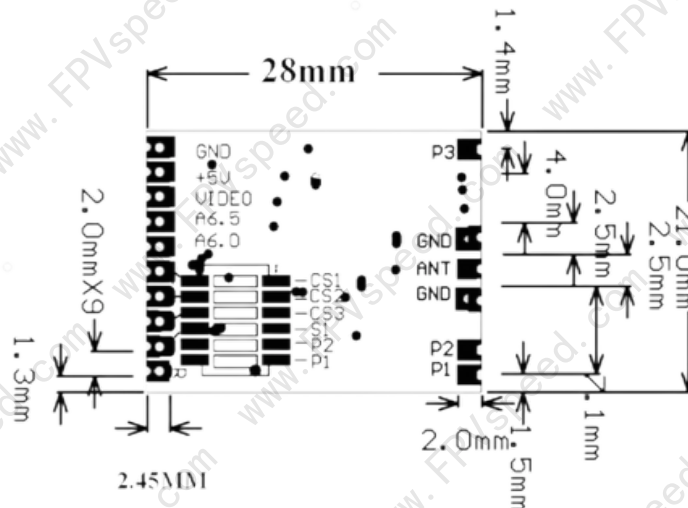
- Frequency Band: 1120~1360MHz
- Channel Customer: 8
- Channel Frequency:
  - A [1120/1120/1160/1200/1240/1280/1320/1360](MHz)
  - B [1120/1120/1160/1200/1258/1280/1320/1360](MHz)
- Modulation Type: FM
- Frequency Control: PLL
- Frequency Stability:  $\pm 100\text{KHz(Typ.)}$
- Frequency Precision:  $\pm 200\text{KHz(Typ.)}$
- A/V Ratio:  $-20 \pm 7\text{dB}$
- S/N Ratio( $F_o \pm 3\text{MHz}$ ):  $>70\text{dBc}$
- Channel Carrier Error: 1dB
- Antenna Port: 50 Ohms
- Input Format: PAL/NTSC
- Video Input Level:  $1\text{V} \pm 0.2\text{Vp-p}$  type
- Operating Temperature:  $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$
- Dimension: L28 X W21 X H3.1mm



Board code: SM1313T

### APPLICATIONS

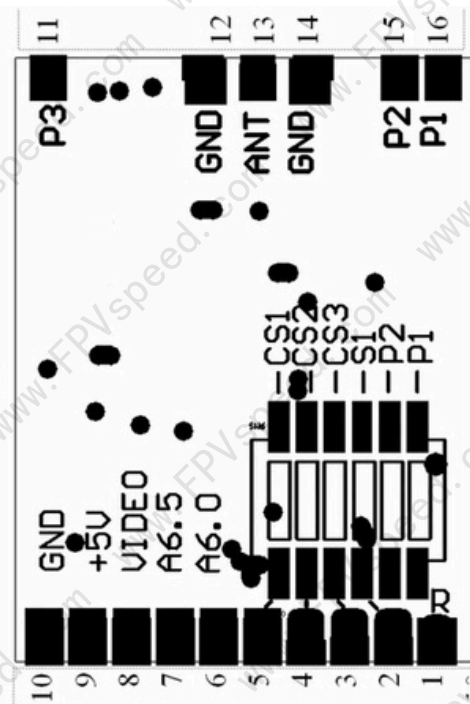
- FPV Drone Racing
- UAV Communication Systems
- Remote Vehicle Monitoring
- Wireless Video Transmission Systems





No.	Item	Specifications			Unit	Test Condition
		Min.	Typ.	Max.		
The ANT port must be connected to an antenna, and the 1.2G antenna must have good contact with the ANT port (otherwise, it may damage the PA).						
1	Tx Power Micro Power	-13	-10dBm	-8		5V 25mA ± 30MA
2	Tx Power 25mW	12	14dBm	17		5V 610mA ± 30mA
3	Tx Power 200mW	21	23dBm	26		5V 640mA ± 30mA
4	Tx Power 1600mW	31	32dBm	33		5V 800mA ± 50mA

Pin No.	Function
1	RX, supports IRC control protocol
2	S1, Frequency Group SEL. Refer to Table2
3	CS3: Refer to Table2
4	CS2: Refer to Table2
5	CS1: Refer to Table2
6	Audio A6.0 Input (NC)
7	Audio A6.5 Input (NC)
8	Video Input
9	+5V~5.4V (IN)
10	GND
11	P3, GND
12	GND
13	ANT (RF OUT)
14	GND
15	P2 Power Control Pin (See the table1)
16	P1 Power Control Pin (See the table1)



With 1.27mm dip switch pads, which can be soldered by the user for power and frequency point control.



Table 1

Power	PIT	25mW	200mW	1600mW
Pin 15 (P2) Level	0	1	0	1
Pin 16 (P1) Level	0	0	1	1
[Note] 0: Ground; 1: Connect to 3.3V or leave floating				

Table 2

Channel A	Pin3 (CS3)	Pin4 (CS2)	Pin5 (CS1)	Pin2 (S1)
CH1: 1120MHz	0	0	0	1
CH2: 1120MHz	1	0	0	1
CH3: 1160MHz	0	1	0	1
CH4: 1200MHz	1	1	0	1
CH5: 1240MHz	0	0	1	1
CH6: 1280MHz	1	0	1	1
CH7: 1320MHz	0	1	1	1
CH8: 1360MHz	1	1	1	1
Channel B	Pin3 (CS3)	Pin4 (CS2)	Pin5 (CS1)	Pin2 (S1)
CH1: 1120MHz	0	0	0	0
CH2: 1120MHz	1	0	0	0
CH3: 1160MHz	0	1	0	0
CH4: 1200MHz	1	1	0	0
CH5: 1258MHz	0	0	1	0
CH6: 1280MHz	1	0	1	0
CH7: 1320MHz	0	1	1	0
CH8: 1360MHz	1	1	1	0

[Note] 0: Ground; 1: Connect to 3.3V or leave floating