



Designed for long-range (up to 500 ft\*) unlicensed wireless video or FSK data applications under Part 15 of the FCC Regulations. This module generates very high quality FM video modulation for exceptional color fidelity and image resolution. It may also be used for data applications up to 3MBPS. An internal filter attenuates harmonics to levels ensuring compliance with FCC spurious emissions requirements and is crystal controlled for excellent stability. No tuning or external components are required. The module is packaged in an RFI/EMI shielded enclosure. Use with R900V receiver module.

**900 MHz  
FM Video Transmitter  
Module / 3MBPS FSK  
Data Module**

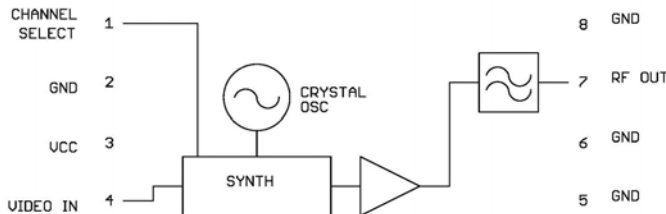
**Features**

- Compatible with R900V Receiver
- Low Cost
- No External Components Required
- NTSC/PAL Compatible
- 75 Ohm Video Input
- No RF Design Required
- Low Power Requirements
- Conforms to FCC Requirements

**Typical Applications**

- Wireless Video Transmission
- Security – Home/Industrial/Auto
- Portable Wireless Camera/Monitor Systems
- Wireless Data Transmission

**Block Diagram**



**Part Ordering Information**

Frequency (MHz)	Model Number	Matching Receiver
907.8	T900V	R900V-908
922.0	T900V	R900V-922

Other frequencies may be custom ordered

**Maximum Ratings**

Sym	Parameter	Value	Unit
VCC	DC Supply Voltage	-0.5 to +7.0	Volts
D <sub>in</sub>	Data Input	-.5 to V <sub>cc</sub>	Volts
T <sub>stg</sub>	Storage Temperature	-50 to +150	C

Specifications subject to change without notice or obligation.

### Electrical Characteristics

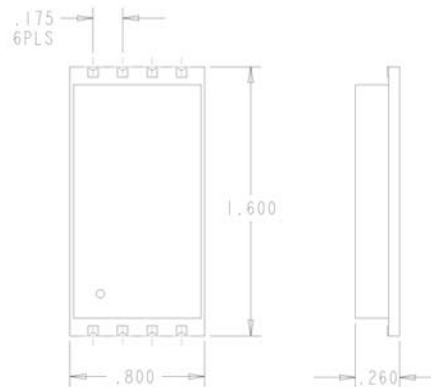
Sym	Parameter	Min	Typ	Max	Unit
VCC	Operating Voltage Range	2.7	3.0	5.0	Volts
Icc	Operating Current (at VCC=3V & Din=3V)		24		mA
f <sub>max</sub>	Video Frequency Response (-3 dB)	.5 Hz		5 MHz	
SNR	Signal to Noise Ratio		60		dB
	FM Deviation @1V p-p Input		+/-3		MHz
DG**	Differential Gain Error			3% p-p	
DP**	Differential Phase Error			3% p-p	
Z <sub>out</sub>	AntennaOutput Impedance		50		Ohms
	Harmonic Suppression		-45		dBc
T <sub>op</sub>	Operating Temperature	-20		+70	C

### Pin Assignment

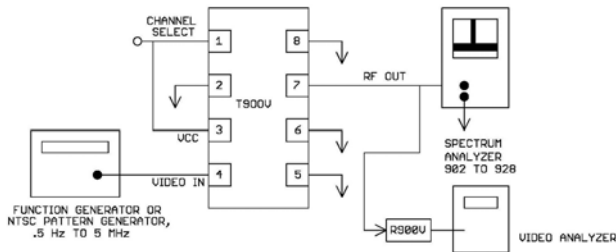


- PIN #1: CHANNEL SELECT
- PIN #2: GROUND
- PIN #3: +Vcc
- PIN #4: VIDEO IN
- PIN #5: GROUND
- PIN #6: GROUND
- PIN #7: ANTENNA
- PIN #8: GROUND

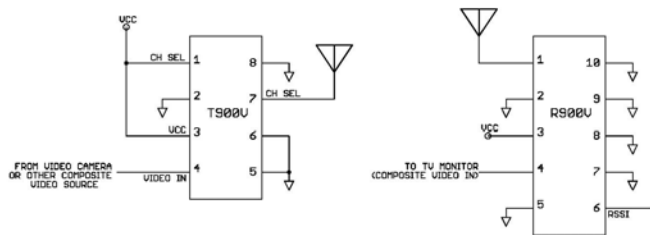
### Package Dimensions



### Video Test Circuit



### Video Application Circuit

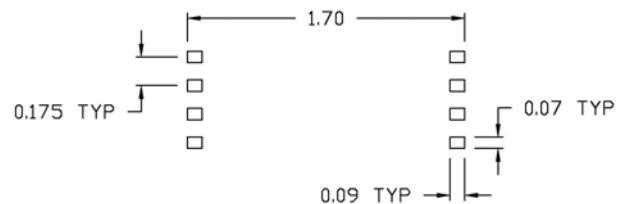


### Notes

- Line of sight, ground plane and quarter wave antennas.  
Antennas: All antennas should be 50 Ohms. A typical antenna would be a quarter wavelength wire or rod 3.25 inches in length.

Pin 1 Channel Select:  
Vcc-908 MHz  
Gnd-922 MHz

### Pad Layout

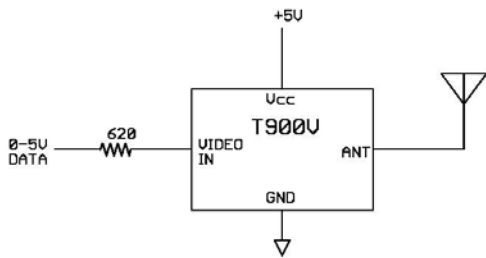


## FSK Data Applications

Transmission data input to T900V should be 0-5 Volts TTL. Different input voltages will require a different input resistor to set the appropriate deviation.

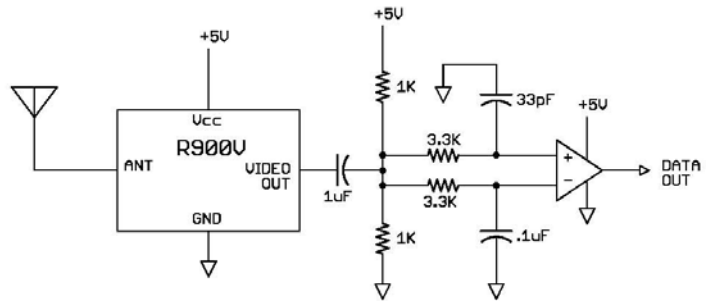
Additional receiver circuitry is necessary as the output of the video module is AC coupled and of inappropriate voltage levels for a digital interface. See Figure 2.

**FSK Data Application Circuit- Figure 1**



Resistor sets Deviation for +/- 1.5 MHz (based on TTL input levels)

**Figure 2**



Comparator is MAX941 or equivalent.