



T900FM

SMT Package



Designed for long-range (up to 1000 ft*) unlicensed wireless FSK data applications under Part 15 of the FCC Regulations. The module is crystal controlled for excellent center frequency stability. An internal filter attenuates harmonics to levels ensuring compliance with FCC spurious emissions requirements. No production tuning and no external parts are required. The module is packaged in an RFI/EMI shielded enclosure. Use with R900FM receiver. The T900FM is available in three sets of standard frequencies.

902-928 MHz FM Data Transmitter Module

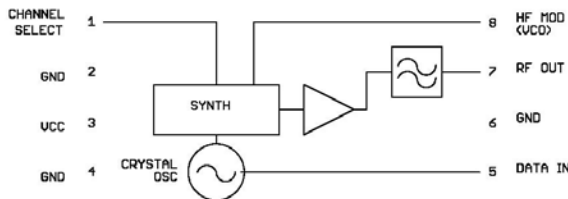
Features

- Compatible with R900FM Receiver
- Low Cost
- Simple Application
- Long Range-- exceeds 1000 ft*
- No RF Design Required
- Low Power Requirements
- Crystal Stability
- Conforms to FCC Requirements

Typical Applications

- Remote Control
- Data Transmission
- Security- Home, Industrial, Auto
- Telemetry

Block Diagram



Part Ordering Information

Frequency (MHz)	Model Number	Matching Receiver
922.00	T900FM-A	R900FM-922
907.8	T900FM-A	R900FM-908
909.0	T900FM-B	R900FM-909
923.2	T900FM-B	R900FM-923
910.2	T900FM-C	R900FM-910
924.4	T900FM-C	R900FM-924

Other frequencies may be custom ordered

Maximum Ratings

SYM	PARAMETER	VALUE	UNIT
V _{cc}	DC Supply Voltage	-0.5 to +7.0	VDC
D _{in}	Data Input	-0.5 to V _{cc}	Volts
T _{stg}	Storage Temperature	-50 to +150	C

¹ Line of sight range, when used with a 1/4-wave ground plane antenna.

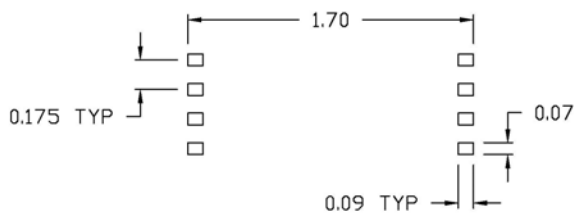
Specifications subject to change without notice or obligation.

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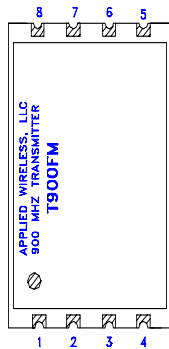
Electrical Characteristics

Sym	Parameter	Min	Typ	Max	Unit
VCC	Operating Voltage Range	2.9	3.0	5.2	Volts
Icc	Operating Current		12.5		mA
f _{mod}	Frequency Response	DC		20	kHz
f _c	Center Frequency		+/-20		KHz
	FM Deviation (@1Vp-p)		+75		kHz
	Data Input Level		+/-1		Vp-p
	Data Input Impedance		5K		Ohms
Z _{out}	Antenna Output Impedance		50		Ohms
T _{op}	Operating Temperature	-20		+70	C

Pad Layout



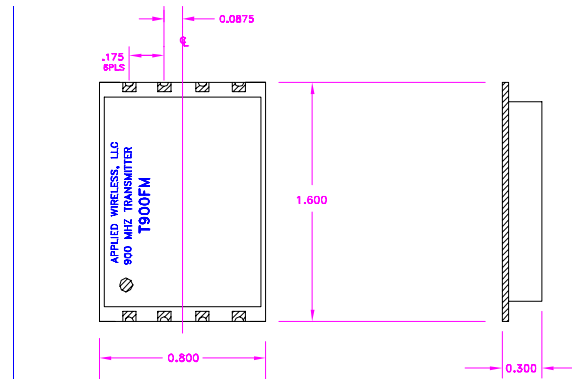
Pinout Assignment



TOP VIEW

- PIN#1: CHANNEL SELECT
- PIN#2: GROUND
- PIN#3: +VCC
- PIN#4: GROUND
- PIN#5: DATA/AUDIO
- PIN#6: GROUND
- PIN#7: ANTENNA
- PIN#8: H/S MOD

Mechanical Outline



Notes

- Pin 8: This input is normally grounded. It is available for extended modulation frequency response or subcarriers.
- Pin 1 Channel Select: Gnd:High freq., Vcc: low freq.
- Antennas: All antennas should be 50 Ohms. A typical antenna would be a quarter wavelength wire or rod (3.25 inches at 915 MHz)

Test Circuit

