TECHNICAL DESCRIPTION, ASTR2144

SYSTEM DESCRIPTION, ASTR2144

The ASTR2144 transmitter is used in a half duplex car starter/alarm system and operates at 433.920MHz, WBFM. The ASTR2144 is used as the second remote for the 2-Way system. (1-Way only Remote to Car)
The remote can also be used for a 1-Way system. (Car Starter only)

CIRCUIT DESCRIPTION

Transmitter Section

The transmitter is provided by U1, an intergated synthesized Tx IC. R2, C10 provide 2millisec delay to allow the synthesizer to lock before transmission. The output is matched to 50 ohms by C5, L2, C4, C6. R8 provides a resistive load far from resonance for inproved stability.
The WBFM modulation is accomplished by the internal PIN diode switch in U1. (Pin 11) and the values of C7, C8.
Microprocessor, U2, is in sleep mode and is activated by a low (GND)on any button.
D1 provides reverse polarity protection.

ASTR2144
TRANSMITTER SPECIFICATION

TRANSMITTER		
Transmitter Frequency	433.920 MHz	√
Frequency Tolerance @ 25°C	± 30 KHz	√
Output Power (Radiated from Case)	12,000uV/Meter max.	√
Transmitter Har.Spurious Output	1200uV/Meter max.	√
Data Rate Transmit (Nutek Code)	1.0Kbit/sec max.	√
Frequency Deviation	± 30 KHz typ.	± 20min, ±38max.
Voltage Range	4.0Vmin to 6.5V max.	√
Peak Current Consumption (Tx only)	15.5 mA max.	√
Idle Current @6.0V and 25°C	0.7uA max.	√
Idle Current @6.0V and +50°C	1.2uA typ., 4uA max.	√
Frequency tolerance	±35 KHz Max Over Temp.	√
Temperature range	-20°C to +50°C	√
Humidity	100% conden. @ 0°C	√