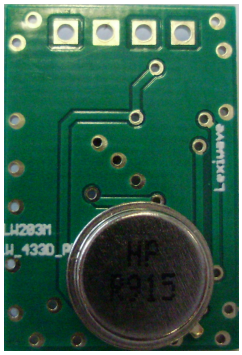
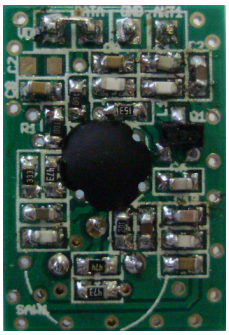




1.0 Introduction

LW203M-ST is an AM transmitter module using Lexiwave's LW203 RFIC designed for ASK communication systems. It consists of a Colpitts oscillator together with a dual-stage RF power amplifier. Targeted applications are in the frequency band from 300MHz to 928MHz. By using an appropriate SAW resonator, LW203M can support both 315/433MHz and 886/915MHz UHF bands for ASK communication at low cost without any tuning. Given its dual power amplifier stage, it delivers very high output power while maintaining superior harmonic suppression to meet stringent FCC or ETSI emission requirements. It is particularly suitable for products requiring long range communication. LW203M-ST can also deliver sufficient radiated power for products having small or internal antenna. It is a complementary module to Lexiwave's LW103M or LW103M-SR ASK receiver module to form a complete RF solution for ASK communication. A communication range of more than 500 meters in open area is typical.

2.0 Features

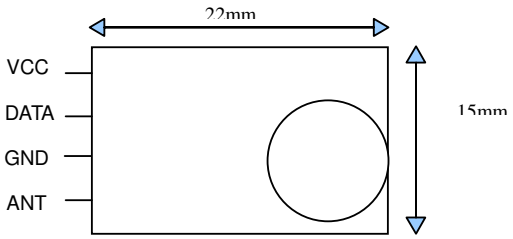
Frequency range from 300 MHz to 900 MHz

- High output power
- Superior output harmonic suppression
- Operate from -20°C to 85 °C
- Small size, 22mm x 15mm
- No tuning and no programming using SAW resonator
- Low cost
- FCC and ETSI compliant

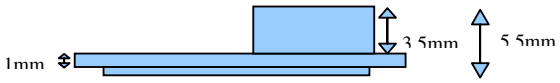
3.0 Applications

- 315/433MHz or 886/915MHz Band Systems
- Remote controllers
- Security systems such as car alarm
- Wireless door bell
- Garage opener
- Radio controlled toys
- Monitoring systems
- Local Oscillator Source
- Remote Fan/Light Control

PCB Top View



Side View



4.0 Pin Description

Pin no.	Symbol	Description
1	ANT	Antenna output
2	GND	Ground
3	DATA	Data Input
4	VCC	Vcc power input

5.0 Electrical Characteristics

5.1 Maximum ratings

Rating	Symbol	Value	Unit
Power Supply Voltage	V_{BATT}	6	Vdc
Junction Temperature	T_J	125	℃
Storage Temperature Range	T_{STg}	-55 to 125	℃

5.2 Recommended Operating Conditions

Characteristics	Value	Unit
Supply voltage	3 – 5	V
RF frequency range	300 – 928	MHz

5.3 DC Electrical Characteristics at 3V

Characteristics	Minimum	Typical	Maximum	Unit
Operation current (433MHz)	-	43	-	mA
Operation current (868MHz)	-	48	-	mA
Operation current (915MHz)	-	51	-	mA

5.4 AC Electrical Characteristics

Characteristics	Minimum	Typical	Maximum	Unit
Output Power (50 ohm) 433MHz	-		-	dBm
3V		13		
5V		19		
2nd Harmonic Power 433MHz				dBc
3V		-54		
5V		-52		
Output Power (50 ohm) 868MHz	-		-	dBm
3V		10.5		
5V		12		
2nd Harmonic Power 868MHz				dBc
3V		-52		
5V		-52		
Output Power (50 ohm) 915MHz	-		-	dBm
3V		10.5		
5V		12		
2nd Harmonic Power 915MHz				dBc
3V		-55		
5V		-54		

6. IMPORTANT NOTICE

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