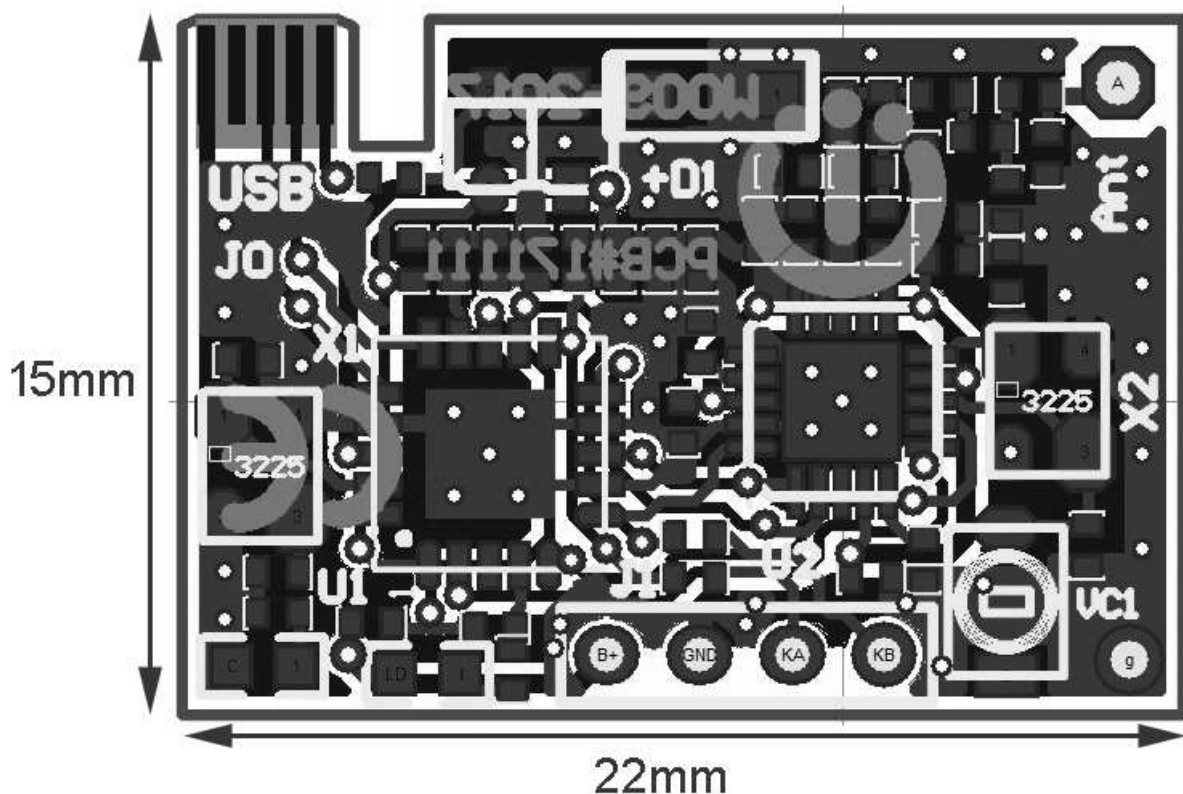




Technical Data.

POCSAG Encoder/Transmitter Module for IoT Application.

ISM Band Frequency Synthesized with message transmitter



Main Function

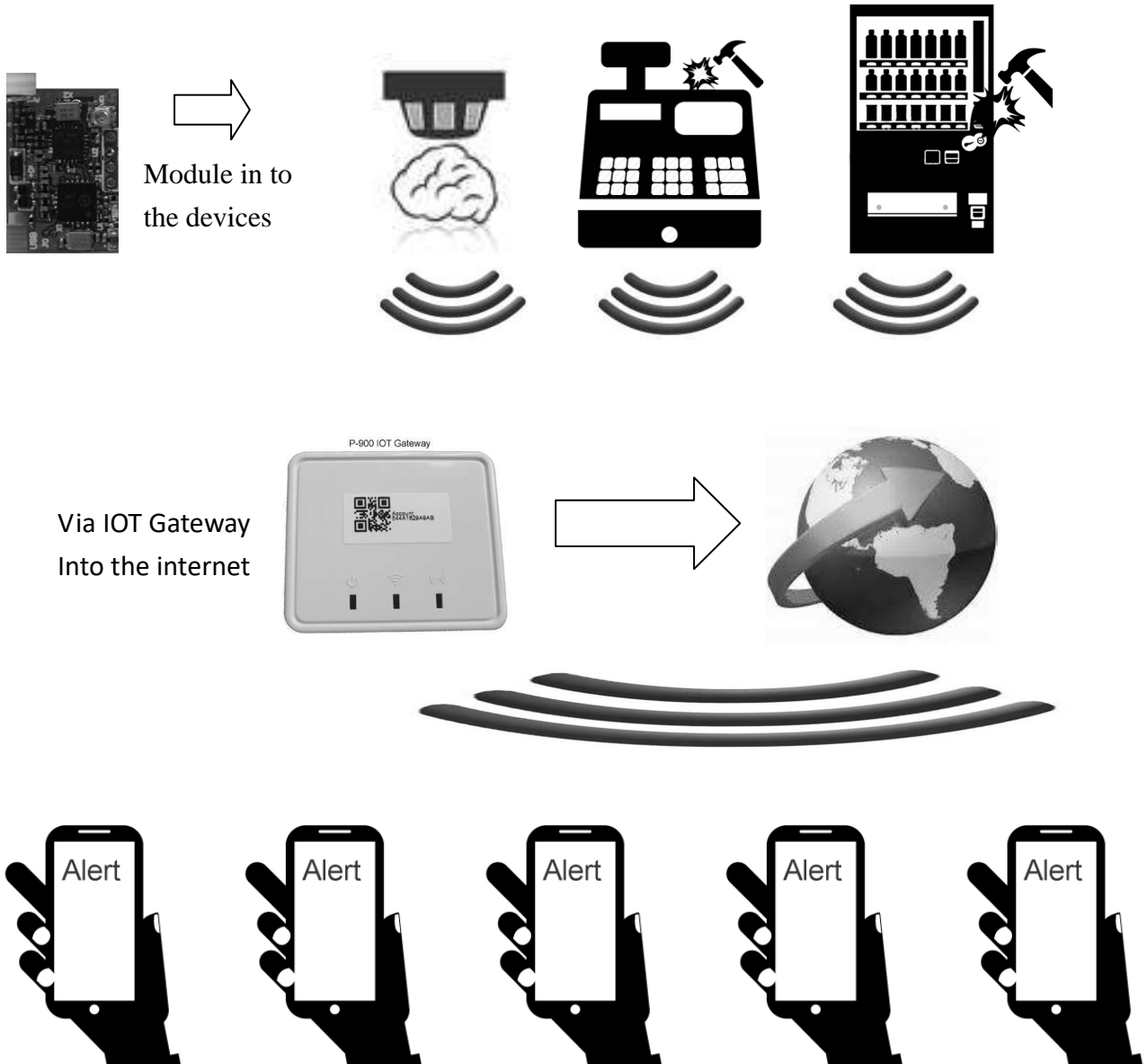
- Frequency synthesized programmed
- 2+1 POCSAG Encoder with message inside
- Long distance up to 700.Meter
- Long battery life. Standby almost no power consumption.
- Battery low detect send battery low message
- Coin battery operation by DC 3V. (2.4V-3.6V).
- Operation temperature from -30°C -- +70°C
- Tiny size: W.22mm, L15mm. H.3mm.

Application

- Send message to smart phone via IoT
- Send message direct to pager
- Fire Alarm on IoT
- PIR sensor on IoT
- Home and building automation
- Home security
- Door window open alarm
- Remote Controls
- Paging system
- Telemetry

Introduction

The Fire alarm, Security system, Home automatic.... Just Plus a w-009 module inside, can be directly sending urgent message thru IoT gateway forwarding to the assigned smart phone worldwide.



-Specification-

Description	Micro-x POCSAG Transmitter module
Frequency Range	ISM Band SRD Band 315/434/868/915 MHz By PLL Frequency Synthesized.
Frequency stability	10 ppm Typ. at 25°C .
Channel spacing	12.5Khz or 25Khz.
Data Rate	From 512bps up to 2.4 Kbps.
Modulation	FSK.NRZ
Deviation	Typ 4.5K Max
Spurious and Harmonics	-60dBm.
POCSAG Encoder	2+1 Capcode 512/1200/2400bps Alphanumeric message **1
Harmonic distortion	<2.5% maximum at 1200 bps.
RF Power output (Adjustable)	13mW for 410-490MHz ; 10mW for 868 and 915 MHz.
Transmitter attack time	<2mS for within 1.2K bps operation speed
RF Output antennas	sprint antenna for option.
Power Supply	DC 3V. (2.4V-3.6V).
Battery Low detect	2.1V to 2.8 V by programming
Temperature	-30°C — +70°C
Operation Current	Standby <5nA ; Transmitter <40mA. at 2 Sec per TX time.
Module Size	22mm x 15mm H3 mm.
Weight. (with BNC Jack)	2 grams.
For Systems Targeting Compliance	EN 300 220 V2.3.1 (Europe) FCC CFR Part15. (U.S.A)

Note **1.

2x inputs. 1x for Hi to low trig, 1x for low to Hi trig, plug 1 for battery low alarm message sending.

Actual
Board size

15mm



22mm

I/O Connector and USB

J1 Main I/O (2.0mm x 4 Pin header) or wires for option

Pin 1 B+ DC IN 2.4-3.6V + (battery B+)

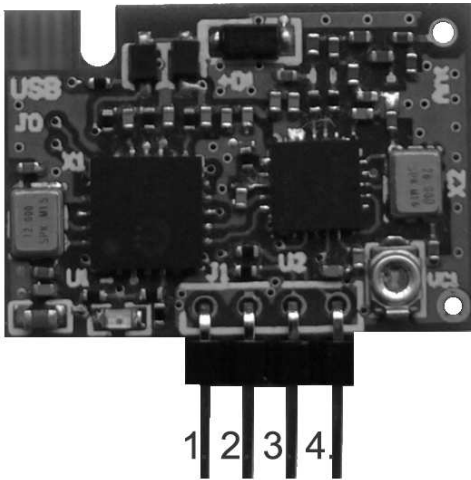
Pin 2 GND system GND (battery B-)

Pin 3 KA Trig for Hi to low to TX

Pin 4 KB Trig for Low to Hi to TX

Use 2.0mm 4 Pin connector

Use Wires



via 2.0mm 4Pin Connector



J0 USB

Via micro USB to Programming for Frequency and POCSAG Code with message ..etc.

Tips to set up the programming parameters

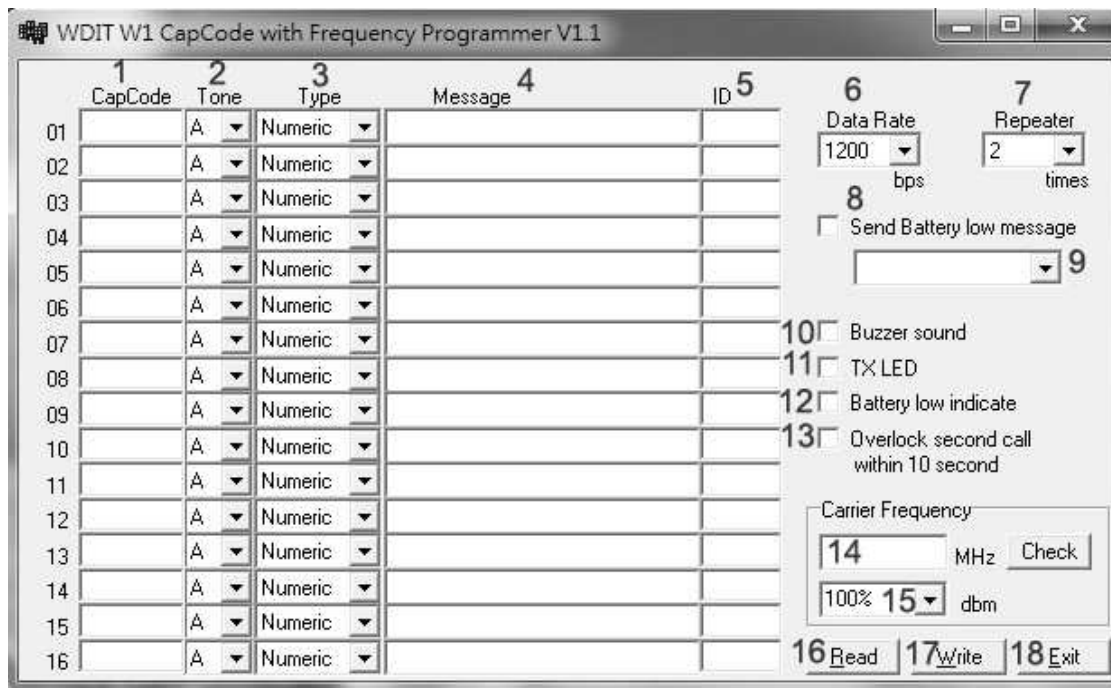
1. Install the W1 programming AP execution file



2. Click W1 and then run the programming software.

3. Connect the USB plug into the TX-115L device and PC USB port .

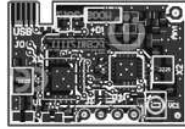
Example Programming Screen as Below:



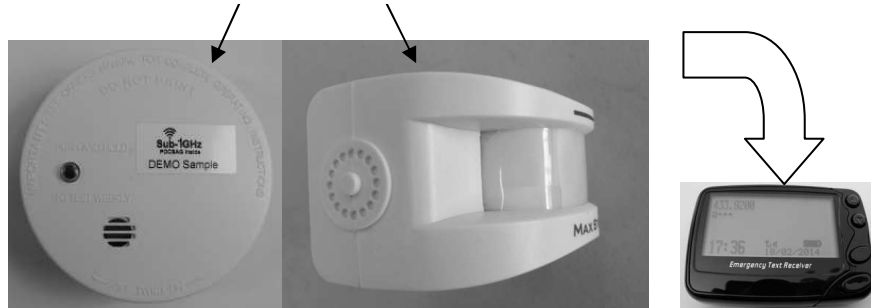
1	2	3	4	5	6	7
CapCode	Tone	Type	Message	ID	Data Rate	Repeater
01	A	Numeric			1200	2
02	A	Numeric			bps	times
03	A	Numeric			<input type="checkbox"/> Send Battery low message	
04	A	Numeric				9
05	A	Numeric			<input type="checkbox"/> Buzzer sound	
06	A	Numeric			<input type="checkbox"/> TX LED	
07	A	Numeric			<input type="checkbox"/> Battery low indicate	
08	A	Numeric			<input type="checkbox"/> Overlock second call within 10 second	
09	A	Numeric			Carrier Frequency	
10	A	Numeric			14 MHz	Check
11	A	Numeric			100% 15	dbm
12	A	Numeric			16 Read	17 Write
13	A	Numeric			18 Exit	
14	A	Numeric				
15	A	Numeric				
16	A	Numeric				

1. Capcode : 01-16 POCSAG address range 0000008-2097151 for POCSAG encoder option.
2. Tone A,B,C,D : For pager alert tone for POCSAG encoder option.
3. Type : For pager numeric or alphanumeric type selection.
4. Message : Pre-programming the encoder messages for pager contents
5. ID : For the ID call system such as each specific nurse ID set-up.
6. Data Rate : POCSAG data speed and baud rate in 512bps or 1200bps or 2400bps types.
7. Repeater : Each paging to be calling repeated times.
8. Send Battery Low Message : Sending the battery low alarm message by wireless
9. Activate the battery low alarm by any capcode 01-16 selection.
10. Buzzer sound : for the transmission beep sound.
11. TXLED Transmitter LED : for the transmission LED indication.
12. Battery Low Indicate : for the battery LED indication.
13. Overlock second call within 10 second : Prohibited Duplicate calling within 10 seconds.
14. Carrier Frequency: For the Radio Frequency set-up (simply key-in your own frequency).
15. dBm : RF carrier output power set-up.
16. Read : Reading the programmed contents from your devices.
17. Write : Write the programming contents into your devices.
18. Exit : Exiting the programming screen.

How does working

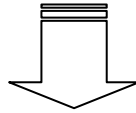


W009 Module into Your Own sensor or devices..



Direct send message to pagers

Connect to P-900 IoT station by ISM band FSK long range



More info for IoT station called P-900



Connect on Internet by Wi-Fi

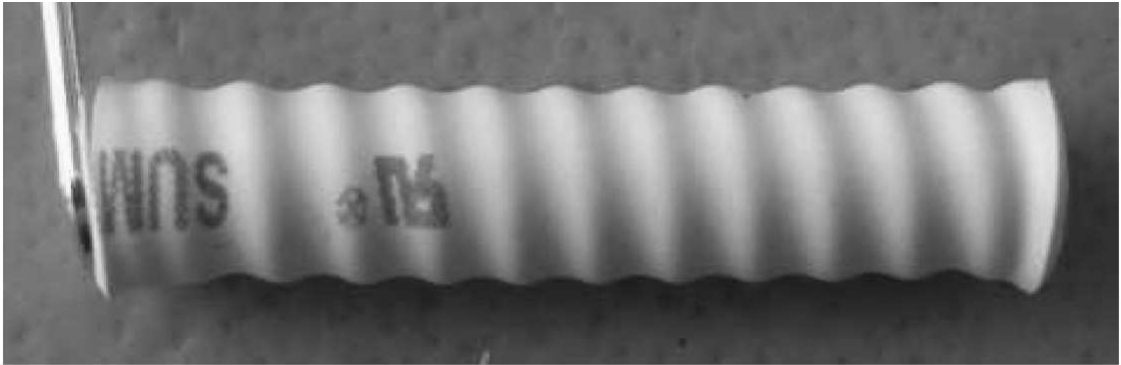


Sending the message to your smart phone

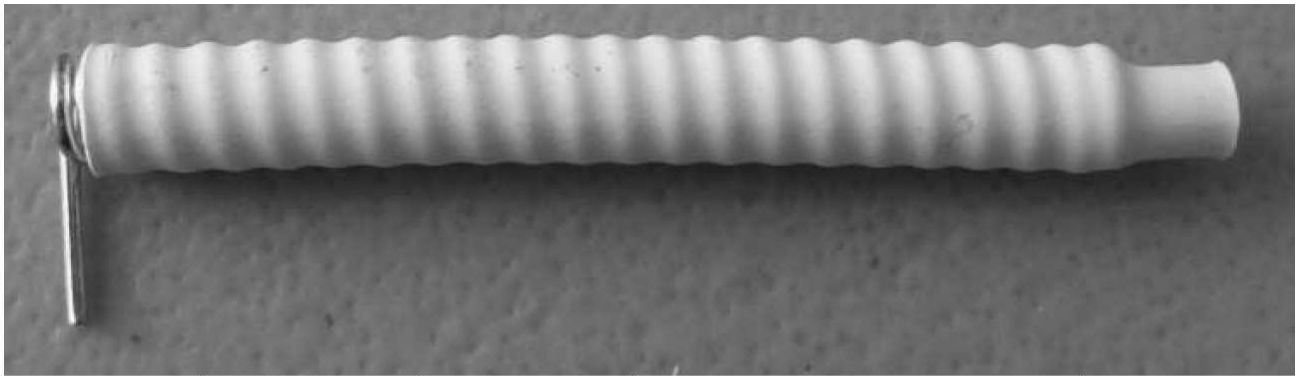


****Alert* 3F Door is opening***

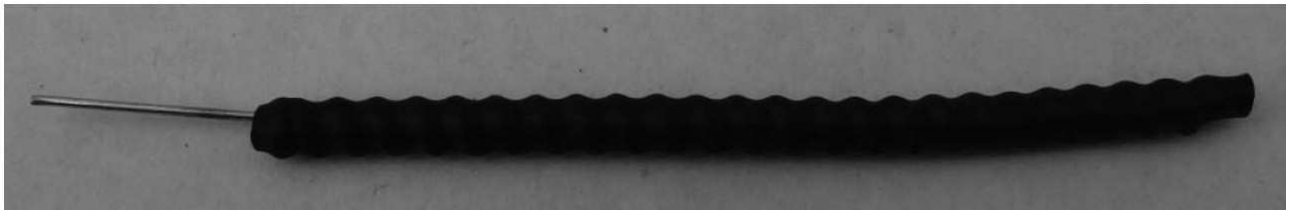
Many type antennas for application.



↑ WSS868	5.0mm	24mm	DIP-P	868MHz	-2db
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↑ WSS433	5.0mm	40mm	DIP-P	430-470MHz	-2db
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↑ WSU433	5.0mm	80mm	DIP-P	430-470MJz	-1db
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How long distance for inside module with your own devices.?



← Alarm devices to IoT station about 100-700 Meter (see antenna type) →



← IoT station via Internet to smart phone on the worldwide -----→

