New on 2020

Wireless Telemetry Controller

Model No. *W1710 POCSAG Airport*

136-960MHz Frequency Synthesized

Operation Manual

Wireless Devices Inc. (Taiwan)   [v3.1]

The **W1710 POCSAG Airport** series is the high performance VHF/UHF, 868MHz and 915MHz paging telemetry controller, which is specially designed for the electric power lines ON-OFF remote control and the data message receiver for security alarm applications etc. And the control concepts are to utilize thru either the existed POCSAG paging infrastructure or on-premises paging transmitter to send out the various many message demands.

1. Appearance of the *W1710 POCSAG Airport* Case and Jacks.

A. <Relay output >		
Terminal	Name	Description
T1	Relay 1 Com	Dry contact of relay #1 common
T2	Relay 1 N/O	Dry contact of relay #1 normal open
T3	Relay 2 Com	Dry contact of relay #1 common
T4	Relay 2 N/O	Dry contact of relay #2 normal open
T5	T+ RS485	RS-422/RS-485 Transmitter positive
T6	T- RS485	RS-422/RS-485 Transmitter negative
J4	TTL O/P	RS-232 TTL level inside on PCB
J3	Serial O/P	RS-232 Serial Input/output
J2	USB	Micro USB for system programming
J1	DC Power	⊖—ⓒ—⊕ DC Power 6V~35V input

1. Internal PCB view of the *W1710 POCSAG Airport PCB*.
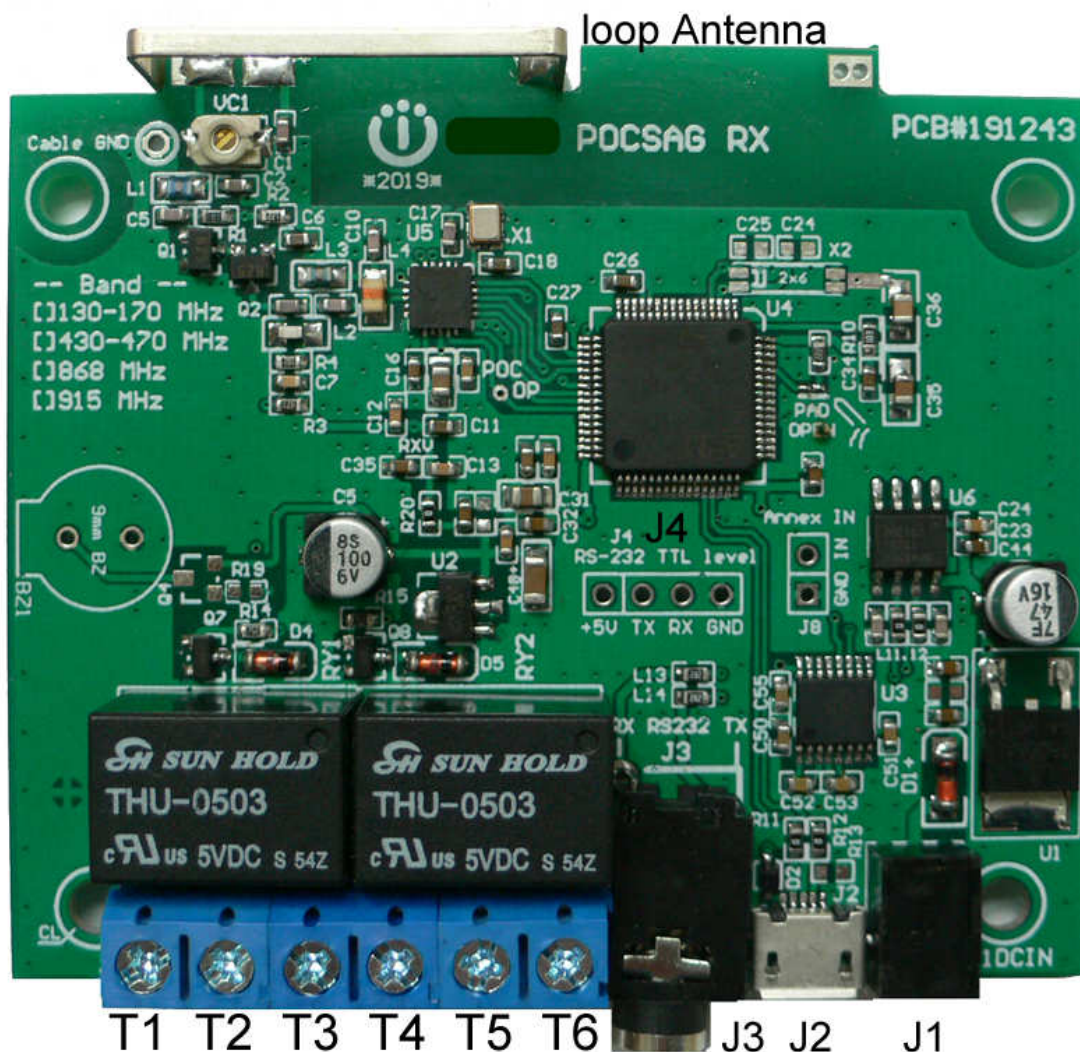
2. Computer Requirements for System Programming:

a). Programming by Windows PC Win7, Win10...etc

3. Operation Procedure:

a). Connect the USB cable plug into the computer USB port

   And the other side of the micro USB jack to the W1710 device.

b). Insert the Program SD Card and click [Programmer] execution file to start the

   programming process. [STM32SI4463Programmer.exe]

   Also, the operation software can be installed into the HDD drive to run the writing

   process directly.

4. Main Programming Screen Functions:

- **A.** 1-6 Capcode,7digits POCSAG address range from 0000008 to 2097151
- **B.** 1-6 Capcode, ON or OFF. (Enable or disable).
- **C.** PC Com Port number set-up.
- **D.** PC Com Port Communication data rate set-up.
- **E.** RX Data Polarity, Signal polarity selection (normal or Invert polarity).
- **F.** Transmitter Function On/Off select.
- **G.** If [F] Transmitter set ON, then set up the Transmitter RF power here.
- **H.** Data forward select, for data repeater use.
- **J.** for Receiver Frequency set-up. (Full 8 digits are required).
- **K.** Display System synthesized truly frequency for reference.
- **L.** Receiver data rate speed (512, 1200 or 2400 bps)
- **M.** The system oscillator select, normally set [TCXO]
- **N.** Transmitter Frequency set-up. (Full 8 digits are required).
- **P.** Display System synthesized truly frequency for reference.

- **Q.** Transmitter data rate speed (512, 1200 or 2400 bps)
- **R.** Decode system numeric/alphanumeric or Auto normally select Auto.
- **S.** Transmitter Capcode,7digits POCSAG address**.**
- **T.** for Remote Control front code (4 digital required)
- **U.** for Remote Control tail code (5 digital required)
- **W.** for Pre-programming Transmitter message.
- **X.**When received the message, add this word in header before sending the message
- **Y.**When received the message, add this word in tail before sending the message
- **V1.** Transmitter message from external GPIO (for Transmitter module use only)
- **V2.** Transmitter data invert (for Transmitter module use only)
- **V3.** Buzzer On/Off set up.
- **[Connect].** Connect with W1710.
- **[Read].** Read program from W1710.
- **[Program].** Programming to W1710
- **[Close].** Leave the program system.

5. Command lists for W1710 POCSAG telemetry controller series:

<<Remote Controller Application Section >>

How to activate command to Your Paging remote controller module

TTTTTTTT   PPPP   A C C   RRRRR

Cautions: Tips for preventing the incorrect key set-up

[**PPPP + ACC + RRRRR** = 12 Digital codes (must = 12 digits exactly)].

TTTTTTTT = POCSAG Cap code

PPPP = Password (0001~9999)

A = Output Port No
A=1 = Driver 1 output.
A=2 = Driver 2 output.
A=0 → Driver output Port #1+#2+.(all driver output ports).
CC = Output state,
Remark: (H=Hi, L=Low, T=Times, Z= Endless,)
00 = Always L
01 = Always H
12 = H2S/1T
13 = H1S/L1S/3T
14 = H2S/L2S/4T
15 = H10S/L10S/Z
16 = H20S/L20S/Z
17 = H1S/ L1S/Z
18 = H0.5S/L0.5S/Z
19 = H6S/L1S/Z
21 = H0.25S/L10S/H0.5S/L10S/H1S/L10S/H2S/L10S/H.Z
22 = H0.5S/1T
23 = H3S/1T.
24 = H20S/1T.
25 = H3S/L3S/10T.
26 = H2S/L2S/20T
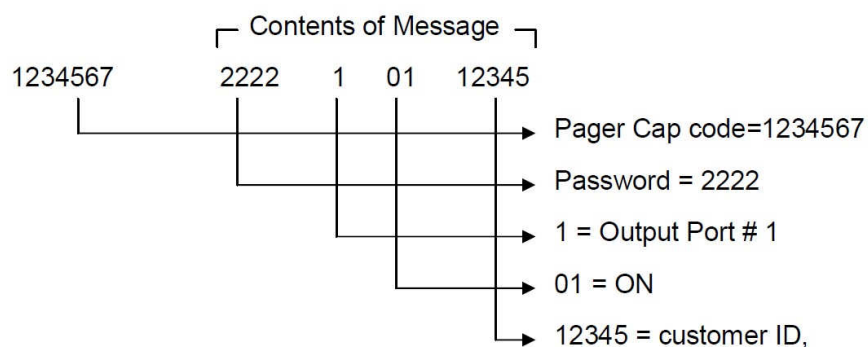27 = H1S/L1S/30T.
28 = H0.5S/L0.5H/30T
29 = H30S/1T.

A C C = 0 0 0 = All driver ports to low (always L)(same as all reset)
RRRRR = Customer ID, these 5 digits are for double check of the commands. And this customer ID code must be programmed Via P/C only (end user can not change).

Example:

Specifications

General	
Size:	71mm X 61 mm X 10 mm (Module only without Housing) 76mm X 72mm X 33mm (with Housing)
Power supply requirements:	DC 6-35V 1A (Max)
Power consumption:	Standby 20mA, Relays active maximum 80mA.
Weight	40gm(Module only) / 90gm (with housing)
Operation Temperature	-40˚C~85˚C

RF Performance	
Frequency bands:	136 MHz ~ 960 MHz. Program By Frequency Synthesized.
Frequency stability:	+/- 1ppm by TCXO
Channel spacing	6.25KHz or 12.5kHz or 25kHz
Demodulation	FSK NRZ, POCSAG format 512, 1200 or 2400 Bps
Selectivity	55dB
Inter modulation rejection	60dB
Sensitivity	-110 dBm (512bps),-107 dBm (1200bps), -104 dBm (2400bps)
Antenna	Built-in loop antenna or option SMA antenna jack

Data output Interfaces	
RS-232	Use J3 by 3.5mm Plug
RS-422/RS485	Use J4 by 2.0mm 2 Pin wafer

Power Relay Unit	
Contact Rating	2X Dry contact 3A
Insulation Resistance	DC 500V 1000MΩ.
Contact Material	Ag Alloy
Approved	UL, CUL, and TUV

Wireless Devices Inc.
make easy of wireless solution