POCSAG Telemetry

Model No. *W1710 Airport*

136-960MHz Frequency Synthesized


Operation Manual

Wireless Devices Inc. (Taiwan)

The **W1710 POCSAG Airport** series is the hi performance VHF/UHF,868MHz, and 915MHz paging telemetry controller, which is specially designed for electric power lines ON-OFF remote control, and data message receiver for security alarm applications etc. And the control concepts is to utilize thru either the existed POCSAG paging infrastructure or on-premises paging transmitter to send out the various 46 message demands.

1. Outlook for the *W1710 POCSAG Airport* Case and Jacks.

A. <Relay output >		
Terminal	Name	Description
T1	Relay 1 N/O	Dry contact of relay #1 normal open
T2	Relay 1 Com	Dry contact of relay #1 common Max 3A
T3	Relay 1 N/C	Dry contact of relay #1 normal close
T4	Relay 2 N/O	Dry contact of relay #2 normal open
T5	Relay 2 Com	Dry contact of relay #2 common max 3A
T6	Relay 2 N/C	Dry contact of relay #2 normal close
J3	Serial O/P	RS-232 Serial Input/output
J4	RS-485	RS-422/RS-485 Output
J2	USB	Micro USB for system programming
J1	DC Power	⊖—Ⅽ—⊕ DC Power 6V~35V input

1. Inside view for the *W1710 POCSAG Airport PCB.*
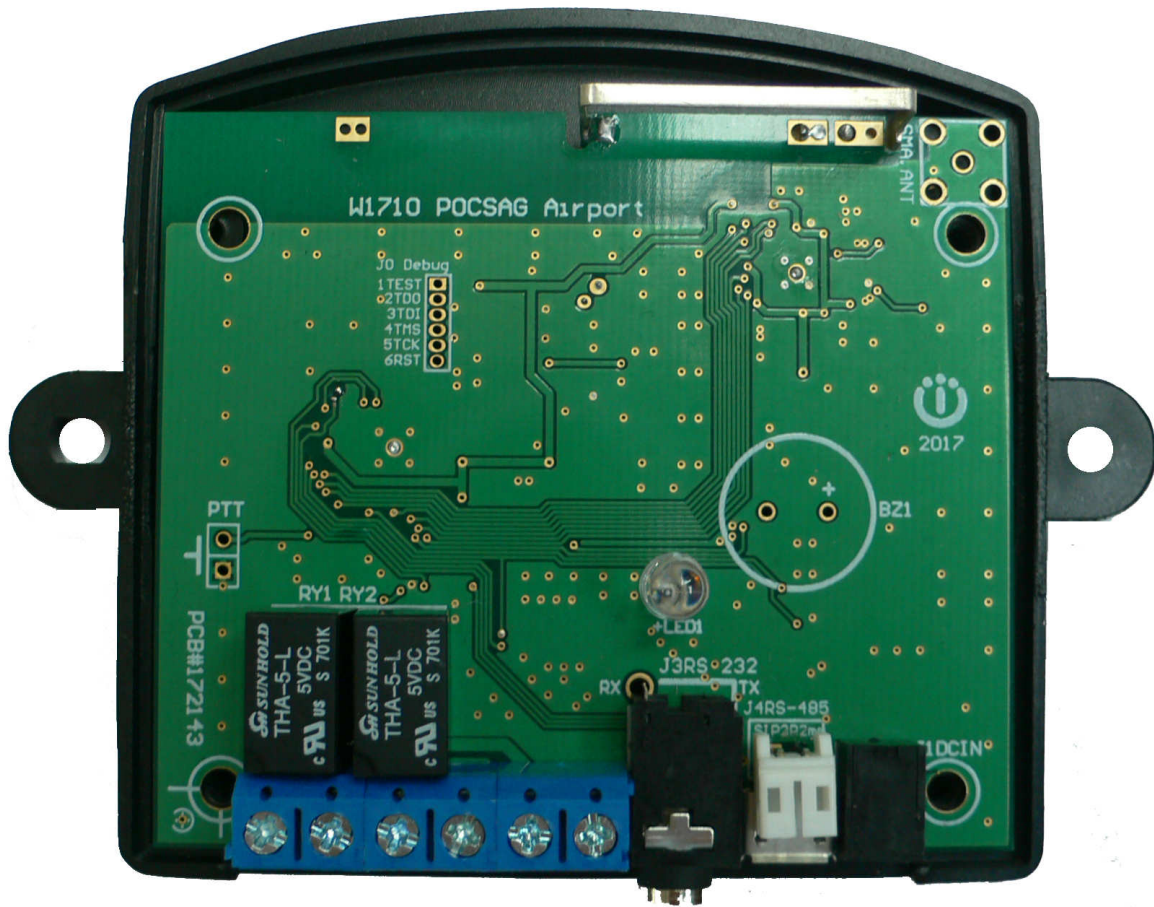
2. Computer Requirements for system programming :

a) Programming by Win PC Win7,Win10...

3. Operation Procedure :

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

and other side of the micro USB jack to the W1710.

b). Insert the Program SD Card and click "W1710 OS" execution file to start the

programming process.

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

directly.

4. Main Programming Screen Functions :
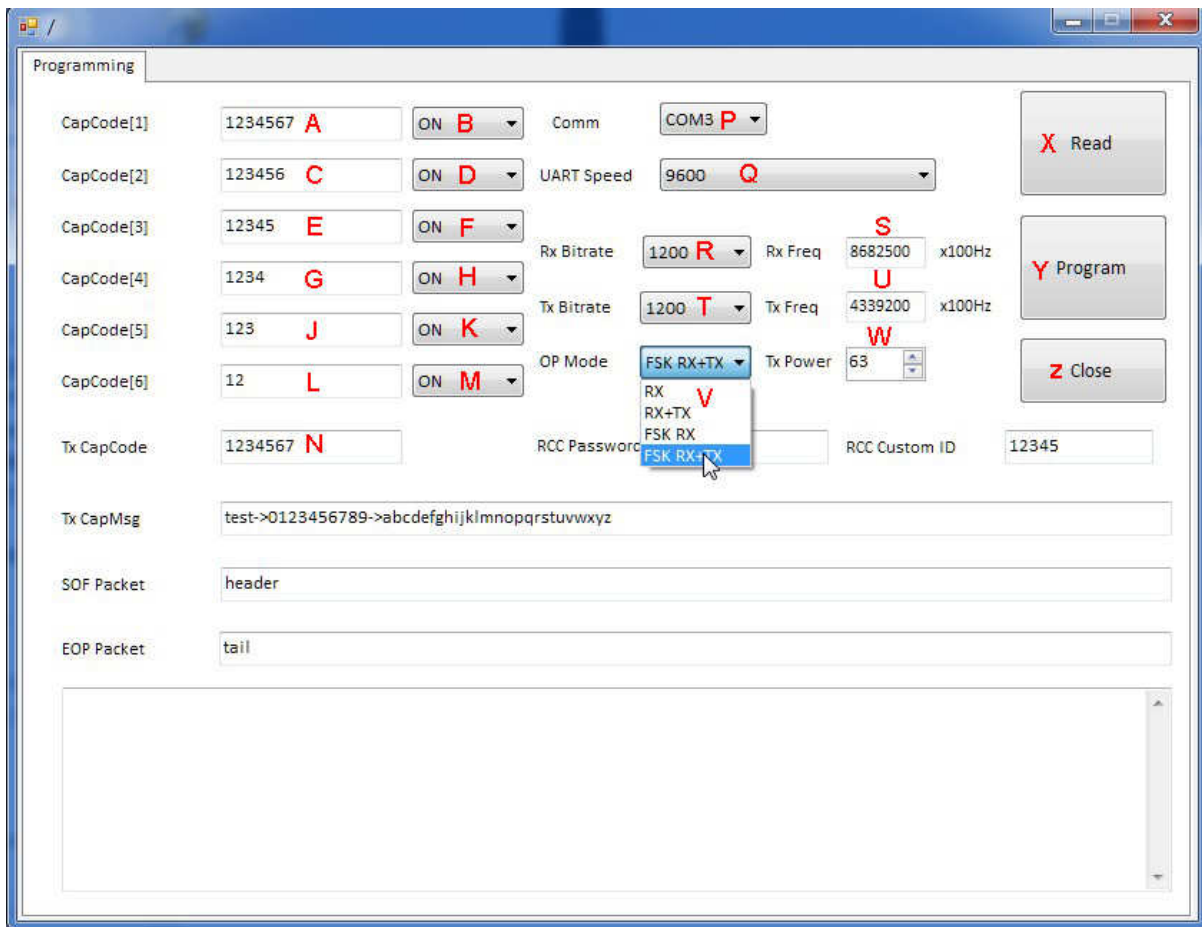
- **A.C.E.G.J.L.** for 1-6 Capcode,7digits POCSAG address range from 0000008 to 2097151

- **B.D.F.H.K.M.** for 1-6 Capcode ON or OFF.

- **P.** for PC Communication Port set up. (automatic)

- **Q.** for PC Communication data rate set up.

- **R.** for Receiver POCSAG Data rate speed (512,1200 or 2400 bps).

- **S.** for Receiver Frequency set up.(Full 7 digits are required. For example:4339200)

- **T.** for Data Polarity, Signal polarity selection (normal or Invert polarity).

- **U.** for Transmitter Frequency set up.(Full 7 digits are required. For example:4575500)

- **V.** for Receiver/Transmitter/Transceiver.. set up.

  RX= Receiver only with message by RS-232 TTL level output via J2 Pin 3

  Also active command P1,P2. via J2 Pin1 and Pin2.(command list see page 7)

  RX+TX= for 2 way. data output + message output + manual TX & automatic Tx

Message (each 10 minute)

FSK RX= receiver FSK (NRZ) data output only. (without decoder)

FSK RX+TX= FSK (NRZ) data output + message output + manual TX & automatic Tx message (each 10 minute)

- **W.** for Transmitter RF power from 0-63 (maximum 63 about 15mW)
- **X.** Read. Reading program data from the module.
- **Y.** Program. programming process to the module.
- **Z.** Click. Close to exit this programming process screen.
- **Tx CapMsg.** Pre-program alpha numeric message word.
- **SOF Packet.** Start word before Pre-program message word.
- **EOP Packet.** End word after Pre-program message word.

5. Command list for model Y1737 POCSAG module series :

<<Remote Controller Application Section >>

How to activate command to Your Paging remote controller module

TTTTTTTTT PPPP A C C RRRRR

Cautions: Tips for preventing the incorrect key set-up

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

TTTTTTTTT = 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.
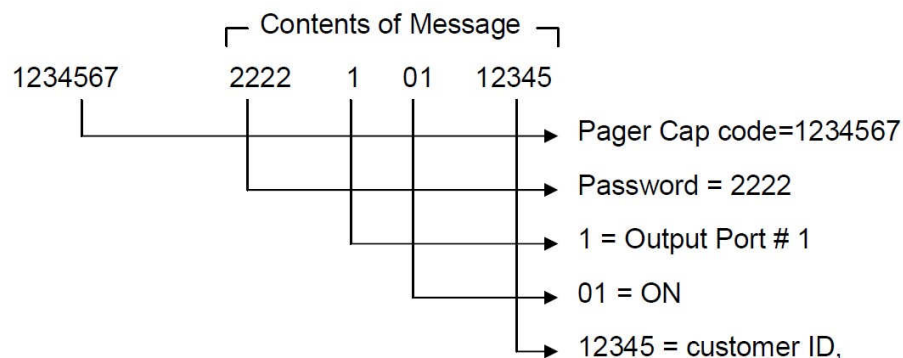25 = H3S/L3S/10T.
26 = H2S/L2S/20T
27 = H1S/L1S/30T.
28 = H0.5S/L0.5H/30T
29 = H30S/1T.

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	-110db/M (512bps),-107db/M (1200bps), -104db/M (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