Mobile GPIO Application (V1.0.3)

## Preface

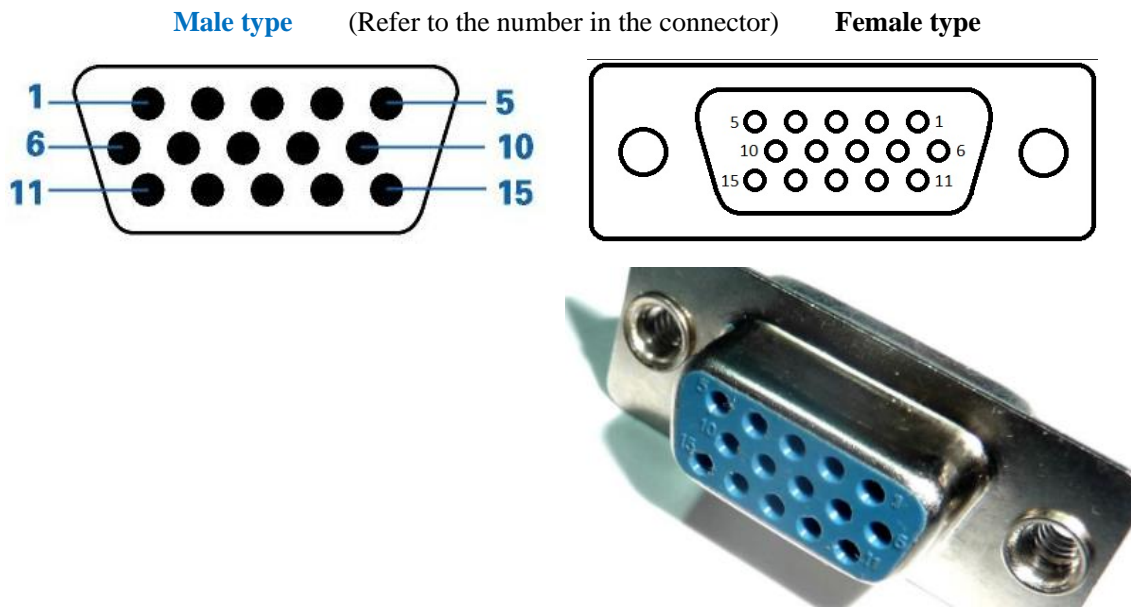This document is for how to use the GPIO of the mobile.

If had any questions, please ask your delear for further help.

# Table of contents

# 1    DB15

## 1.1    15-Pin Connector for Mobile Radio

**Male type**    (Refer to the number in the connector)    **Female type**



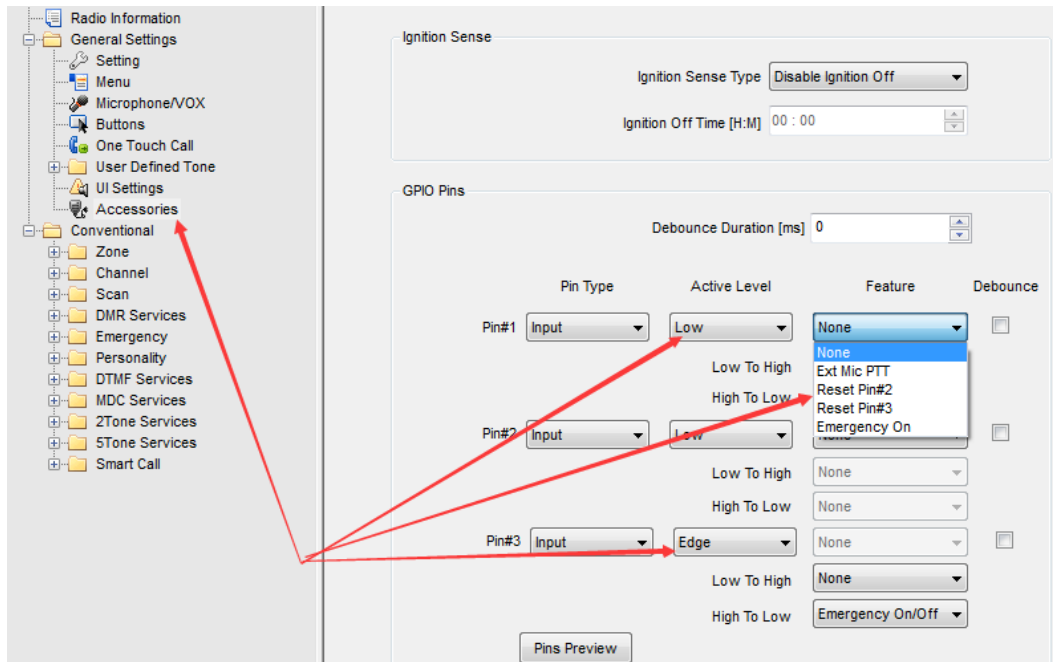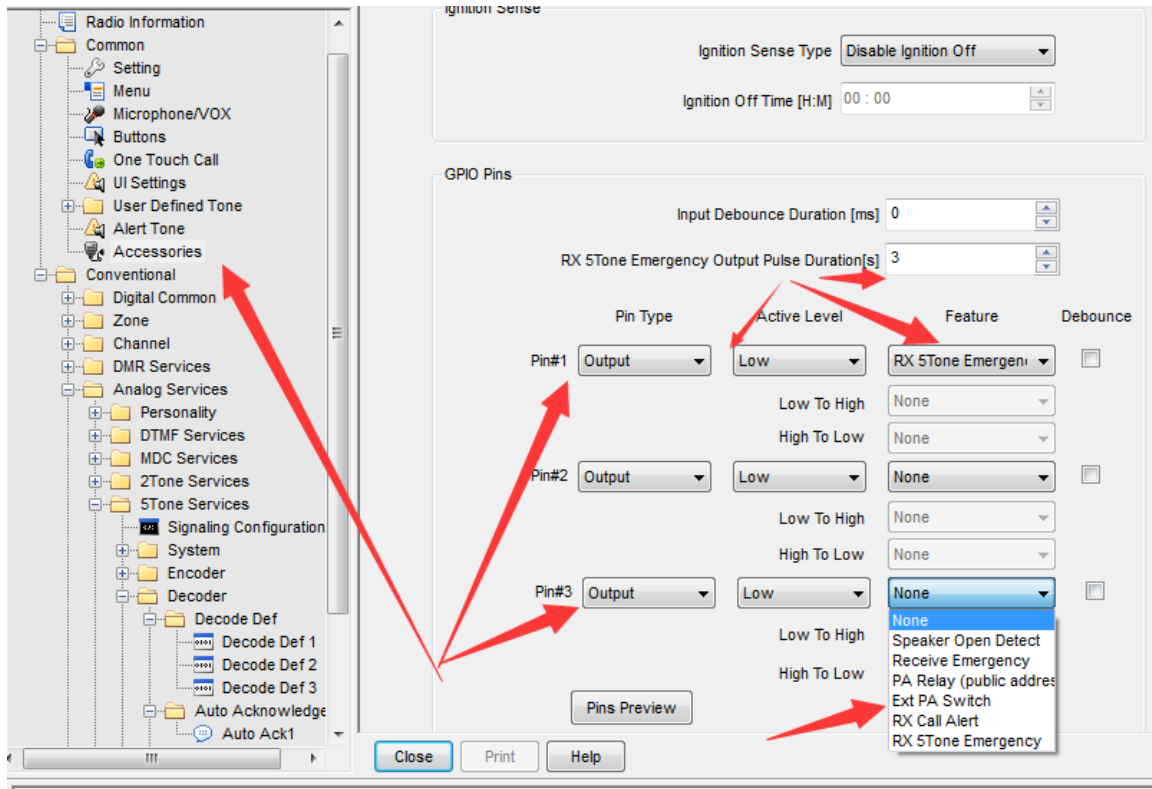| Pin No. | Name | Function Description |
|---|---|---|
| 1 | VOL_OUT | Received audio output |
| 2 | EXT-MIC | External MIC signal input |
| 3 | IGN IN | Ignition input |
| 4 | DEO | Received signal demodulation output |
| 5 | EXT_PTT | External PTT |
| 6 | Port1 | Programmable auxiliary port |
| 7 | Port2 | Programmable auxiliary port |
| 8 | GND | Gnd |
| 9 | Port3 | Programmable auxiliary port |
| 10 | 5C | DC+5V |
| 11 | USB_D- | USB- |
| 12 | USB_D+ | USB+ |
| 13 | DTMFIO | DTMF signal input or output |
| 14 | GPS-TXD | GPS serial data output |
| 15 | GPS-RXD | GPS serial data input |

**1.2    Make a DB-15 UART cable**



**Some specifications**

| | |
|---|---|
| 1. mV peak to peak for audio out | 500mV |
| 2. mV peak to peak for external MIC signal input | 80mV |
| 3. mV Received signal demodulation output | 300mV |
| 4. External PTT active high or low | LOW |

## 2    Input GPIO



1）    None:            No feature
2）    Ext Mic PTT:      Exteranl PTT to start/stop the Transmission.
3）    Reset Pin#2:       If the corresponding pin active, the radio will reset the Pin#2 to Inactive level
4）    Reset Pin#3:       If the corresponding pin active, the radio will reset the Pin#3 to Inactive level
5）    Emergency On:      If the corresponding pin active, the radio will start "Emergency mode".
6）    Emergency On/off:    If active, the radio will start/exit "Emergency mode", i.e. in the above, the first
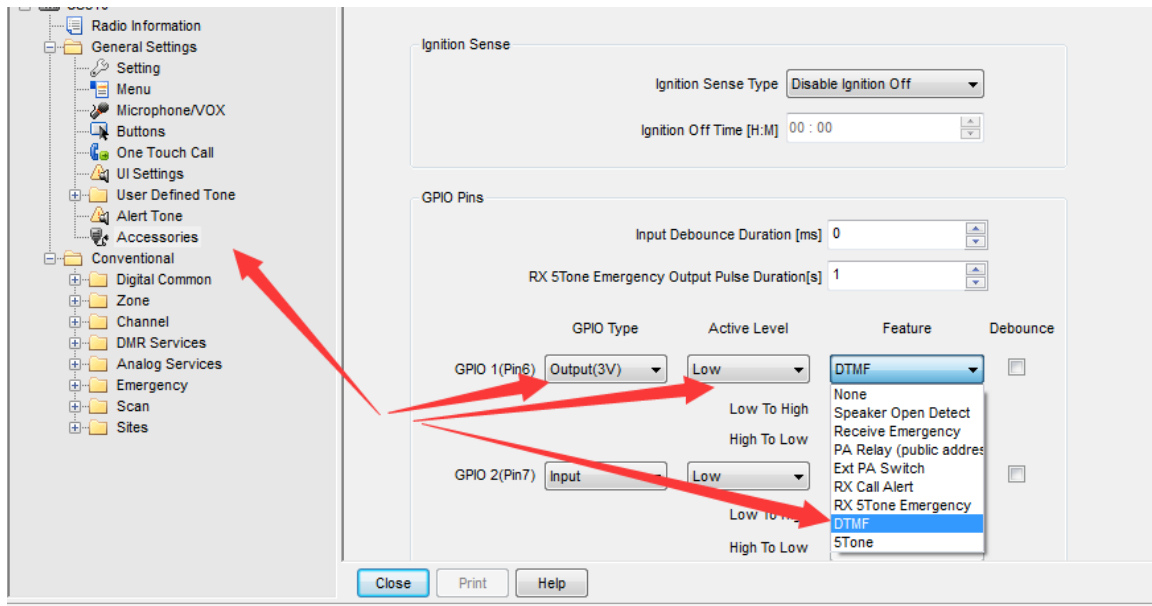            edge trigger will start the emergency and the second trigger will exit the emergency.
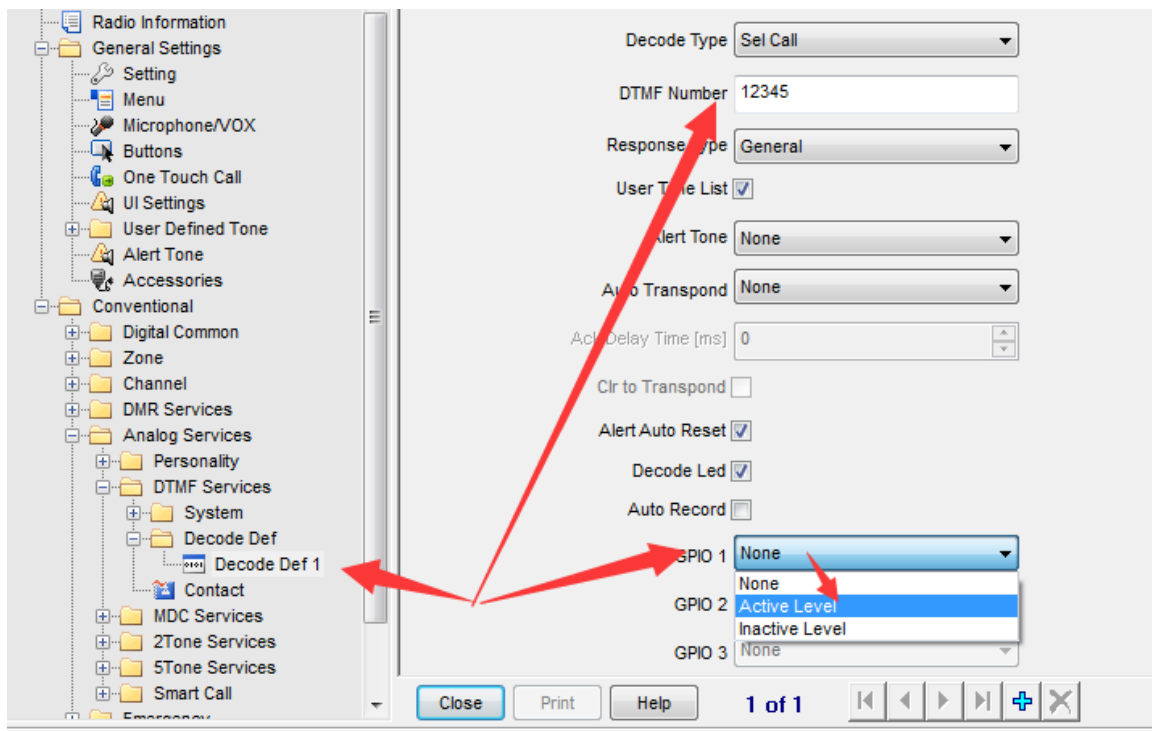
## 3   Output GPIO



1） None:                        No feature
2） Speaker Open Detect:    If the squelch open(speaker unmute), the GPIO will output the active level.
3） Receive Emergency:       If the radio receive a remote Emergency, Output the active level.
4） PA relay(Public address): If the enabled the PA, Output the active level.
5） RX Call Alert:               If received a Call Alert, Output the active level.
6） RX 5Tone Emergency:    If received a 5-tone Incoming Emergency, Output an active pulse.

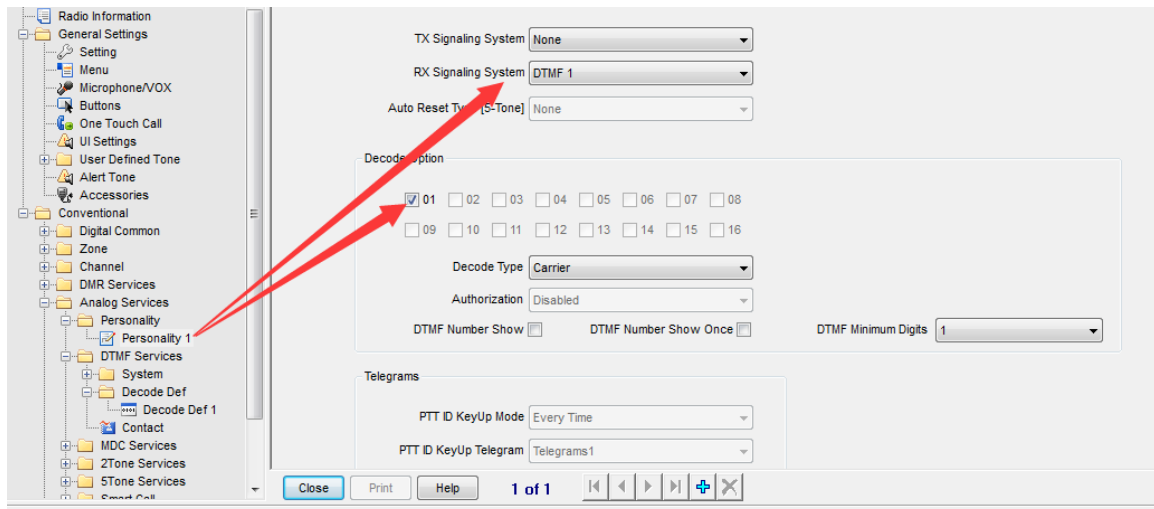### 3.1 Output an active Level by DTMF signaling Received

1) set a GPIO pin



2) set a DTMF decode definition



3)Set a Personality for an analog Channel to use

4)Set a certain chanel to use that Personality