

# AR-V6002FLCT

## Software Requirement Specifications

V. 1.0

2012 / 04 / 25

## 1. Require Operation System:

- A. Windows XP Home/Pro x86
- B. Windows 7 Home/Pro x86
- C. Linux Fedora 12 Distribution x86 (Kernel version 2.6.31)
- D. Linux Fedora 14 x86 (Kernel version 2.6.35)
- E. Ubuntu 11.10 Distribution x86 (Kernel version 3.0)
- F. Ubuntu 10.04 LTS Server x86 (Kernel version 2.6.32)
- G. Linux Debian 6.0 x86 (Kernel version 2.6.32)

## 2. Driver

### 1. Functionality

Provide supporting operation system the ability to access on board

- 1. GPIO
- 2. Watch Dog Timer
- 3. Power/PIC:
- 4. CANBUS

## 3 Function and User Interface

### 1. GPIO: (4 input / 4 output)

Input:

- 1) Get input Status(): Low:0 , High:1

Output:

- 1) Set Output Status() : Low:0 , High:1
- 2) Get Output Status() : Low:0 , High:1

### 2. Watch Dog:

- 1) Set watch dog time : 0~255 second (default: 0 , interval: 1s) (accuracy: +/- 5%)

### 3. Power/PIC:

**Status present column (For all mode)**

- 1) Get Mode Status() :
- 2) Get Car battery voltage():
- 2) Get Ignition on / off status(): On: 1 , Off: 0
- 3) Get FW version() :

4) Get System on by(): Ignition 或 remote switch

**Set condition column:**

1) Set System on by(): Ignition 或 remote switch (Mode 15 only)

2) Set Soft off delay time(): (Mode 15 only)

1> 可設定數值: 0~255 (default: 0 , interval: 1)

2> 可設定單位: minute 或 second (default: second)

3) Get Soft off delay time():

4) Set Hard off delay time(): (Mode 15 only)

1> 可設定數值: 0~255 (default: 0 , interval: 1)

2> 可設定單位: minute 或 second (default: second)

5) Get Hard off delay time():

10) Set default value(): (Mode 15 only)

**4. CANBUS:**

1) Receive CAN packages. ( can\_read )

2) Transmit CAN packages. ( can\_write )

3) Start CAN bus to transmit/receive packages (CAN\_StartChip )

4) Stop CAN bus transmitting / receiving packages. ( CAN\_StopChip )

5) Reset CAN bus. ( CAN\_ChipReset )

6) Clear receive / transmit buffer in device driver ( Not the buffer on the CAN bus device. )

7) Set CAN bus mask. ( CAN\_SetMask )

8) Set CAN bus bit timing. ( CAN\_SetTiming )

9) Set / unset CAN bus in Listen Only mode. ( CAN\_SetListenOnlyMode )

10) Set / unset CAN bus in LOOP mode. ( Set 'selfreception' on/off )

11) Set time stamp. ( Set 'timestamp' variable )

12) Set Baud rate on CAN bus. ( CAN\_SetBTR )

13) Read CAN bus status.

( Including:

1. get Baud rate.

2. get CAN status register.

3. set error\_warning\_limit = 0.

4. get receiver error count.

5. get transmit error count.

6. set error\_code=0.

7. get the size of receive buffer.

8. get the number of used receive buffer.

9. get the size of transmit buffer.

10.get the number of used transmit buffer.

)