Micro controller software description for M2012A_SMD evaluation board

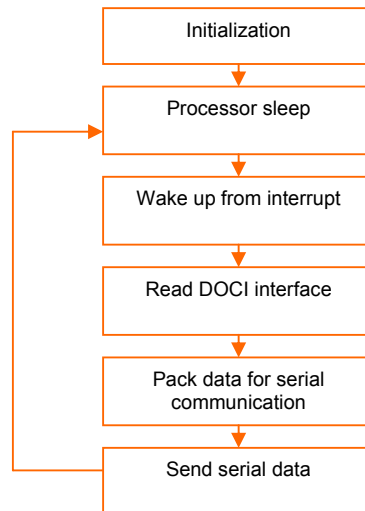**MOS (PTY) LTD.**
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Function

The program on the micro controller acts as an interface between the M2012A integrated circuit and a personal computer.

The program is written in C and compiled with Hi-Tech compiler. A HEX file is included in case reprogramming of the module is necessary. The flow diagram below shows main functions of the program.

```
        ┌─────────────────────┐
        │    Initialization    │
        └─────────────────────┘
                  │
                  ▼
        ┌─────────────────────┐
        │   Processor sleep    │◄──┐
        └─────────────────────┘   │
                  │               │
                  ▼               │
        ┌─────────────────────┐   │
        │ Wake up from interrupt│  │
        └─────────────────────┘   │
                  │               │
                  ▼               │
        ┌─────────────────────┐   │
        │  Read DOCI interface │   │
        └─────────────────────┘   │
                  │               │
                  ▼               │
        ┌─────────────────────┐   │
        │   Pack data for serial│  │
        │    communication     │   │
        └─────────────────────┘   │
                  │               │
                  ▼               │
        ┌─────────────────────┐   │
        │   Send serial data   │───┘
        └─────────────────────┘
```
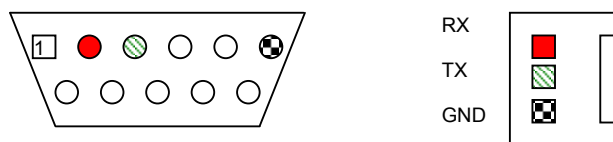
Re-programming

The module can be re-programmed. Connect a short ribbon cable between the connector above the micro controller and the programmer. The pin names are indicated on the silkscreen on the PCB.

Steps for reprogramming:
1. Remove the supply voltage from the module.
2. The VDD track on the bottom layer of the PCB must be opened when reprogramming with a PICSTART Plus programmer.
3. Low voltage re-programming is not supported on the board.
4. Re-connect the track on the bottom layer.

Serial Cable

The module interfaces directly to a serial port on a PC. Note that the serial port names on the module is the names as the PC sees the signals.

RX
TX
GND

Please contact us if there are any qustions regarding the software or the module.

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