台揚科技股份有限公司
MICROELECTRONICS TECHNOLOGY INC.

ISO 9001 Certified

MTI RU00-M03-X RFID HP-SiP Module

OEM Configuration Guide

Version 1.0

Contents

Revision History

Version Number	Description	Revision Date
0.1	First release of document. The revision is used on firmware version 0.7.0.	November 2014
0.2	(1) Fix a typo of supporting F/W Ver. For PROD_NAME. The revision is used on firmware version 0.7.0 or later.	March 2015
1.0	(1) Modify version number of this document to 1.0. The revision is used on firmware version 0.7.0 or later.	October 2015

1 OEM Configuration Area Usage

1.1 Introduction

The *MTI RU00-M03-X RFID Module OEM Configuration Guide* provides detailed information for configuring the HP-SiP module through OEM configuration area.

The HP-SiP module provides an OEM configuration area to configure operation. The values in this area are read and written using the commands.
Data in the OEM configuration area is accessed on a word by word basis. An OEM configuration "WORD" is 32 bits, little endian. Some words may encode several values at the bit or byte level - the description will indicate what these are.

ATTENTION: The OEM configuration area has been programmed at manufacturing time. This documentation only provides necessary OEMCfg address for customer. DO NOT change other addresses that are not listed.

1.2 Command

Use two commands below to access OEM configuration area of HP-SiP module.

- RFID_MacReadOemData
- RFID_MacWriteOemData

Refer to the *MTI RU00-M03-X RFID Module Command Reference Manual* document for detailed usage of command.

1.3 OEM Configuration Area

<table>
<tr><th>Word Address</th><th>Word Length</th><th>Name</th><th>Description</th><th>F/W Ver.</th></tr>
<tr><td>0x0000000A</td><td>1</td><td>MAIN_MODEL_NAME</td><td>This field is read only.
Indicated main model name with RU00-abc-defg.
RU00-abc-d: main model name.<table><tr><th>Bit</th><th>Use</th></tr><tr><td>7:0</td><td>Fourth number.(d)
Number type is ASCII code.</td></tr><tr><td>15:8</td><td>Third number.(c)
Number type is ASCII code.</td></tr><tr><td>23:16</td><td>Second number.(b)
Number type is ASCII code.</td></tr><tr><td>31:24</td><td>First number.(a)
Number type is ASCII code.</td></tr></table></td><td>0.7.0</td></tr>
<tr><td>0x0000000B</td><td>1</td><td>SUB_MODEL_NAME</td><td>This field is read only.
Indicated sub model name with RU00-abc-defg.
efg: sub model name.<table><tr><th>Bit</th><th>Use</th></tr><tr><td>7:0</td><td>Third number.(g)
Number type is ASCII code.</td></tr><tr><td>15:8</td><td>Second number.(f)
Number type is ASCII code.</td></tr><tr><td>23:16</td><td>First number.(e)
Number type is ASCII code.</td></tr><tr><td>31:24</td><td>The field is Reserved as zero.</td></tr></table></td><td>0.7.0</td></tr>
<tr><td>0x0000000C</td><td>1</td><td>OEMCFG_VERSION</td><td>This field is read only.
Indicated version number of OEMCfg information.<table><tr><th>Bit</th><th>Use</th></tr><tr><td>7:0</td><td>Unit digit minor version number.
Number type is ASCII code.</td></tr><tr><td>15:8</td><td>Ten digit minor version number.
Number type is ASCII code.</td></tr><tr><td>23:16</td><td>Major version number.
Number type is ASCII code.</td></tr><tr><td>31:24</td><td>The field is Reserved as zero.</td></tr></table></td><td>0.7.0</td></tr>
<tr><td>0x0000000F</td><td>1</td><td>MFG_NAME_HEADER</td><td>This field is read only.
Described manufacturer name header.<table><tr><th>Bit</th><th>Use</th></tr><tr><td>7:0</td><td>This is the total length of the name string, including this byte.
The total number of characters is Length field - 2.</td></tr><tr><td>15:8</td><td>Constant value indicating a name string descriptor. This is always = 0x03.</td></tr><tr><td>23:16</td><td>First half of first Unicode character.</td></tr><tr><td>31:24</td><td>Second half of first Unicode character.
Always 0.</td></tr></table></td><td>0.7.0</td></tr>
<tr><td>0x00000010</td><td>39</td><td>MFG_NAME</td><td>This field is read only.
Described manufacturer name.</td><td>0.7.0</td></tr>
</table>

<table>
<tr><td></td><td></td><td></td><td><table><tr><th>Bit</th><th>Use</th></tr><tr><td>7:0</td><td>First half of N+1 Unicode character.</td></tr><tr><td>15:8</td><td>Second half of N+1 Unicode character. Always 0.</td></tr><tr><td>23:16</td><td>First half of N+2 Unicode character.</td></tr><tr><td>31:24</td><td>Second half of N+2 Unicode character. Always 0.</td></tr></table></td><td></td></tr>
<tr><td>0x00000037</td><td>1</td><td>PROD_NAME_HEADER</td><td>This field is read only.
Described product name header.<table><tr><th>Bit</th><th>Use</th></tr><tr><td>7:0</td><td>This is the total length of the name string, including this byte.
The total number of characters is Length field - 2.</td></tr><tr><td>15:8</td><td>Constant value indicating a name string descriptor. This is always = 0x03.</td></tr><tr><td>23:16</td><td>First half of first Unicode character.</td></tr><tr><td>31:24</td><td>Second half of first Unicode character. Always 0.</td></tr></table></td><td>0.7.0</td></tr>
<tr><td>0x00000038</td><td>39</td><td>PROD_NAME</td><td>This field is read only.
Described product name.<table><tr><th>Bit</th><th>Use</th></tr><tr><td>7:0</td><td>First half of N+1 Unicode character.</td></tr><tr><td>15:8</td><td>Second half of N+1 Unicode character. Always 0.</td></tr><tr><td>23:16</td><td>First half of N+2 Unicode character.</td></tr><tr><td>31:24</td><td>Second half of N+2 Unicode character. Always 0.</td></tr></table></td><td>0.7.0</td></tr>
<tr><td>0x0000005F</td><td>1</td><td>SERIAL_NUM_HEADER</td><td>This field is read only.
Described serial number header.<table><tr><th>Bit</th><th>Use</th></tr><tr><td>7:0</td><td>This is the total length of the name string, including this byte.
The total number of characters is Length field - 2.</td></tr><tr><td>15:8</td><td>Constant value indicating a name string descriptor. This is always = 0x03.</td></tr><tr><td>23:16</td><td>First half of first Unicode character.</td></tr><tr><td>31:24</td><td>Second half of first Unicode character. Always 0.</td></tr></table></td><td>0.7.0</td></tr>
<tr><td>0x00000060</td><td>39</td><td>SERIAL_NUM</td><td>This field is read only.
Described serial number.<table><tr><th>Bit</th><th>Use</th></tr><tr><td>7:0</td><td>First half of N+1 Unicode character.</td></tr><tr><td>15:8</td><td>Second half of N+1 Unicode character. Always 0.</td></tr><tr><td>23:16</td><td>First half of N+2 Unicode character.</td></tr><tr><td>31:24</td><td>Second half of N+2 Unicode character. Always 0.</td></tr></table></td><td>0.7.0</td></tr>
<tr><td>0x000000A4</td><td>1</td><td>BAUD_RATE</td><td>Selected baud rate of the host UART interface and</td><td>0.7.0</td></tr>
</table>

<table>
<tr><td></td><td></td><td></td><td>desired in bps.
0x0001C200 = 115200 bps
0x00038400 = 230400 bps
0x00070800 = 460800 bps
0x000E1000 = 921600 bps
The setting value which do not belong these four baud rates will set the baud rate to 115200 which is the default of the HP-SiP module.</td><td></td></tr>
<tr><td>0x00001B01</td><td>1</td><td>DEVICE_ID</td><td>Used command to control the HP-SiP module with device ID. Factory default device ID number is 0. General device ID number is 255 for broadcasting.
Range of device ID number is 0 to 255.</td><td>0.7.0</td></tr>
<tr><td>0x000022CF</td><td>1</td><td>CUST_COUNTRY_NAME</td><td>Described the information of custom country name.
DO NOT modify this field.<table><tr><th>Bit</th><th>Use</th></tr><tr><td>7:0</td><td>First character.</td></tr><tr><td>15:8</td><td>Second character.</td></tr><tr><td>23:16</td><td>Third character.</td></tr><tr><td>31:24</td><td>Fourth character.</td></tr></table></td><td>0.7.0</td></tr>
</table>