



SIM7020 Series_NVRAM _Application Note

LPWA Module

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About Document

Version History

Version	Date	Owner	What is new
V1.00	2018.05.10	Xiaohui Xu	First Release.
V1.01	2018.06.12	Albert Meng	Revised
V1.02	2020.06.10	Xiaohui Xu	All

Scope

This document applies to the following products

Name	Type	Size(mm)	Comments
SIM7020C	NB1	17.6*15.7	Band 1/3/5/8
SIM7020E	NB1	17.6*15.7	Band 1/3/5/8/20/28
SIM7030	NB1	16*18	Band 1/3/5/8
SIM7060	NB1+GNSS	24*24	Band 5/8
SIM7020G	NB2	17.6*15.7	Band 1/2/3/4/5/8/12/13/17/18/19/20/25/26/28/66/70/71/85
SIM7060G	NB2+GNSS	24*24	Band 1/2/3/4/5/8/12/13/17/18/19/20/25/26/28/66/70/71/85

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1 Introduction

1.1 Purpose of the document

Based on module AT command manual, this document will introduce NVRAM application process.

Developers could understand and develop application quickly and efficiently based on this document.

1.2 Related documents

[1] SIM7020 Series_AT Command Manual

1.3 Conventions and abbreviations

In this document, the GSM engines are referred to as following term:

ME (Mobile Equipment);

MS (Mobile Station);

TA (Terminal Adapter);

DCE (Data Communication Equipment) or facsimile DCE (FAX modem, FAX board);

In application, controlling device controls the GSM engine by sending AT Command via its serial interface.

The controlling device at the other end of the serial line is referred to as following term:

TE (Terminal Equipment);

DTE (Data Terminal Equipment) or plainly "the application" which is running on an embedded system;

2 AT Commands for NVRAM

Command	Description
AT+CNVMR	Read data from NVRAM
AT+CNVMW	Write data to NVRAM
AT+CNMIVD	Invalidate a specific data item in NVRAM
AT+CNVMGET	Get all Customer Data Item IDs from NVRAM

For detail information, please refer to "SIM7020 Series_AT Command Manual".

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3 NVRAM Examples

//Example of NVRAM.

```
AT+CNVMW="data1","I'm a test!",11 //Write data to NVRAM
+CNVMW: 0
```

```
OK
AT+CNVMW="data2","I'm a test2!",12 //Write data to NVRAM
+CNVMW: 0
```

```
OK
AT+CNVMGET //Read all the information of all data written to the
+CNVMGET: 0,"NVDM_CUST","data1" NVRAM using the AT+CNVMW instruction
+CNVMGET: 1,"NVDM_CUST","data2"
```

```
OK
AT+CNVMR="data1" //Read a specific data written to the NVRAM by the
+CNVMR: 0,"data1",11,"I'm a test!" AT+CNVMW instruction
```

```
OK
AT+CNVMR="data2" //Read a specific data written to the NVRAM by the
+CNVMR: 0,"data2",12,"I'm a test2!" AT+CNVMW instruction
```

```
OK
AT+CNVMIVD="data1" //Delete one of the NVRAM data.
+CNVMIVD: 0
```

```
OK
AT+CNVMIVD="data2" //Delete one of the NVRAM data.
+CNVMIVD: 0
```

OK

NOTE

- The first parameter of AT+CNVMW "data1" indicates the name of the data written to NVRAM. The second parameter of AT+CNVMW "I'm a test!" is the specific content of the data to be written to the NVRAM. The third parameter of AT+CNVMW "11" is the length of the data content to be written to the

NVRAM, the length of the second parameter.

- The parameter of AT+CNVMR is the name of the data written to the NVRAM with the AT+CNVMW instruction
- The parameter of AT+CNVMIVD is also the name of the data written to the NVRAM with the AT+CNVMW instruction

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