



A76XX Series_ VSIM_Application Note

LTE Module

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Name:	A76XX Series_VSIM_Application Note
Version:	1.00
Date:	2023.04.27
Status:	Released

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About Document

Version History

Revision	Date	Owner	What is new
V1.00	2023.03.10	Bobo.shao	New version

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Scope

Based on module AT command manual, this document will introduce VSIM application process. Developers could understand and develop application quickly and efficiently based on this document. This document applies to ASR1603 Series, 1803S Series.

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1 Introduction

1.1 Purpose of the document

This document will describe how to design with VSIM function from software side. With this document customer will learn about the VSIM feature and apply to customer application.

1.2 Related documents

[1] A76XX Series_AT Command Manual

1.3 Conventions and abbreviations

SIM(Subscriber Identity Module)

VSIM(Virtual SIM);

IMSI(International Mobile Subscriber Identity)

ICCID(Integrate Circuit Card Identity)

2 Select VSIM

AT*SELECTVSIM Select VSIM or physical SIM

Execute command is to select vsim or physical sim with immediate effect and store in NVM.

AT*SELECTVSIM Select VSIM or physical SIM

Test Command AT*SELECTVSIM=?	Response *SELECTVSIM: <selectVsim(0-1)>,[reserved:(0-1)] OK
Read Command AT*SELECTVSIM?	Response *SELECTVSIM: <selectVsim>,<reserved> OK
Write Command AT*SELECTVSIM=<selectVsim>[,<reserved>]	Response 1)If the parameter is correct, response: OK 2)Others: +CME ERROR: <err>
Parameter Saving Mode	AUTO_SAVE
Max Response Time	9000ms
Reference	

Defined Values

<selectVsim>	Integer type <u>0</u> physical sim 1 vsim
[reserved]	Reserved

Examples

```
AT*SELECTVSIM=?
*SELECTVSIM:
<selectVsim(0-1)>,[reserved:(0-1)]

OK
AT*SELECTVSIM=1
```

OK

AT*SELECTVSIM?

*SELECTVSIM: 1,0

OK

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3 VSIM file configuration

AT*AVSIM Config VSIM file

Execute command is to config iccid,imei,opc,ki value and store in factory(Only in factory mode,and non-full erase upgrade does not erase parameters).

AT*AVSIM Config VSIM file

Test Command AT*AVSIM=?	Response *AVSIM: <iccid>, <imsi>, <opc>, <ki> OK
Read Command AT*AVSIM?	Response *AVSIM: <iccid>, <imsi>, <opc>, <ki> OK
Write Command AT*ATVSIM=<iccid>, <imsi>, <opc>, <ki>	Response 1)If the parameter is correct, response: OK 2)Others: +CME ERROR: <err>
Parameter Saving Mode	AUTO_SAVE
Max Response Time	9000ms
Reference	

Defined Values

<iccid>	String type ICCID
<imsi>	String type IMSI
<opc>	String type OPC
<ki>	String type KI

Examples

AT*AVSIM=?

***AVSIM: <iccid>, <imsi>, <opc>, <ki>**

OK

AT*AVSIM=89967100000002451568,42110010
1071156,8B84C1821B84F79362ED15B12FE8F
68E,473C5B4E00984743B964CDBF9819BE44

OK

AT*AVSIM?

*VSIM: 89967100000002451568,
421100101071156,
8B84C1821B84F79362ED15B12FE8F68E,
473C5B4E00984743B964CDBF9819BE44

OK

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4 VSIM complete test process

AT*PROD=1

Enter factory mode

**AT*AVSIM=89967100000002451568,4211001010
71156,8B84C1821B84F79362ED15B12FE8F68E,
473C5B4E00984743B964CDBF9819BE44**

Config iccid,imei,opc,ki for VSIM

RESET MODULE

AT*SELECTVSIM=1

Select VSIM

AT+CIMI

Query IMSI

AT+CICCID

Query ICCID