

SMS Application Notes on AT137/139 modules

Revision history

Version	Date	Author	Update description
1.0	20110328	Steven Shao	Create

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1: SMS PDU Mode

A: Sending a message in the PDU mode

(1) NO SMS SERVICE CENTER

AT+CMGF=0

AT+CMGS=23 (PDU length, excluding the two initial zeros)

>001010B813123810868F300080A00680065006C006C006F<ctrl-z>

+CMGS: 37

OK

The PDU string consists of the following:

Octet(s)	Description
00	Length of SMSC information. Here the length is 0, which means that the SMSC stored in the phone should be used
01	First octet of the SMS-SUBMIT message.
01	TP-Message-Reference.
0B	Address-Length. Length of phone number (11)
81	Type-of-Address
3123810868F3	The phone number in semi octets (13321880863)
00	TP-PID. Protocol identifier
08	TP-DCS. Data coding scheme.
0A	TP-User-Data-Length. Length of message.
00680065006C006C006F	TP-User-Data.

(2) WITH SMS SERVICE CENTER

AT+CMGF=0

AT+CMGS=33 (PDU length)

>0891683108200105F001000B813123810868F3000814004100420026002A00204F60003000

3900670021<ctrl-z >

+CMGS: 12

OK

The PDU string consists of the following:

Octet(s)	Description
08	Length of the SMSC information (in this case 8 octets)
91	Type-of-address of the SMSC. (91 means international format of the phone number)
68 31 08 20 01 05 F0	Service center number (in decimal semi-octets). The phone number of this service center is "+8613800210500".
01	First octet of the SMS-SUBMIT message.
00	TP-Message-Reference.
0B	Address-Length. Length of phone number (11)
81	Type-of-Address
3123810868F3	The phone number in semi octets (13321880863)
00	TP-PID. Protocol identifier
08	TP-DCS. Data coding scheme.
14	TP-User-Data-Length. Length of message.
004100420026002A00204F600030003900670021	TP-User-Data.

B: Receiving a message in the PDU mode

AT+CMGF=0

AT+CMGL=0

+CMGL: 1, 0, ,30

0891683108125000F0200D91683167344256F0000880504171613323100031003200334F605

97D006100620063

The PDU string consists of the following:

Octet(s)	Description
08	Length of the SMSC information (in this case 8 octets)
91	Type-of-address of the SMSC. (91 means international format of the phone number)
68 31 08 12 50 00 F0	Service center number (in decimal semi-octets). The phone number of this service center is "+861380210500".
20	First octet of this SMS-DELIVER message.
0D	Address-Length. Length of the sender number (0D hex = 13 dec)
91	Type-of-address of the sender number
68 31 67 34 42 56 F0	Sender number (decimal semi-octets), with a trailing F
00	TP-PID. Protocol identifier.
08	TP-DCS Data coding scheme
80 50 41 71 61 33 23	TP-SCTS. Time stamp (semi-octets)
10	TP-UDL. User data length, length of message.
0031003200334F60597D006100620063	TP-UD. Message Contents

C: Status report

AT+CNMI=2,1,0,1,1 (enable SMS status report)

AT+CMGS=23 (PDU length)

>0021000B813119075550F700080A00680065006C006C006F<ctrl-z>

+CMGS: 36

OK

(Following is status report)

+CDS: 26

0891683108200105F0063A0D91683119075550F7114060411422231140604114222300

2: SMS Text Mode

A: Sending a message in the TEXT mode

(1) Default alphabet

```
AT+CMGF=1
```

```
AT+CSCS="IRA"
```

```
AT+CSMP=17,167,0,0 (<DCS> value is GSM default alphabet)
```

```
AT+CMGS="13917055057"
```

```
>HELLO9527<ctrl-z >
```

```
+CMGS: 36
```

```
OK
```

(2) UCS2 format

```
AT+CMGF=1
```

```
AT+CSMP=17,167,0,8 (<DCS> value is UCS2)
```

```
AT+CSCS="UCS2"
```

```
AT+CMGS="13917055057"
```

```
>4F60597D<ctrl-z >
```

```
+CMGS: 36
```

```
OK
```

(3) 8bit format

```
AT+CMGF=1
```

```
AT+CSCS="IRA"
```

```
AT+CSMP=17,167,0,4 (<DCS> value is 8bit)
```

```
AT+CMGS="13917055057"
```

```
>3031<ctrl-z>
```

+CMGS: 36

OK

B: Receiving a message in the TEXT mode

AT+CMGF=1

AT+CMGL="ALL"

+CMGL: 1,2,"REC READ","+8613917055057","", "11/04/06,14:55:28+50"

0031003200334F60597D

C: Status report

AT+CSMP=39, 167, 0, 8 (enable SMS status report)

AT+CMGF=1

AT+CSCS="UCS2"

AT+CNMI=2,1,0,1,1

AT+CMGS="13917055057"

>00680065<ctrl-z >

>+CMGS: 45

OK

(Following is the status report)

+CDS: 39,57,"+8613917055057",145,"11/04/06,14:37:26+50","11/04/06,14:37:26+50",0