



***"Automation Gone Cellular"***

**Model CS-884**  
**SMS Commands**

A product of:



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# The instructions of SMS COMMANDS

You can use this sms commands to remote control and configure Cell Switch™

SMS commands is valid when the module is in the working mode

You can execute this sms commands through RS232. But the point is that when the input command is made through RS232, the “%” has to be inserted ahead, while if it is sent via sms, no “%” or “< CR >” is needed.

Type	Format	Note
Config commands	%command<value><enter>	Return OK or ERROR
Inquire commands	%command<?><enter>	Return the result or ERROR

# SMS COMMANDS

## 1. Common commands

Functions	commands	value	Note
Config CS numbers	Add number: <b>CS&lt;n&gt;&lt;phone&gt;</b>	<n>: 0 to 9 phone: number or null	For example: add number 12345 as CS3, you can send command: CS312345
	Require number: <b>CS&lt;n&gt;?</b> Require all number: <b>CS?</b>		
	Delete number: <b>CS&lt;n&gt;</b>		
Require daily report	<b>DAYRP</b>		
Enable daily report at 10 clock	<b>DAS1</b>		
Disable daily report at 10 clock	<b>DAS0</b>		
Config digital inputs alarm sms	<b>S&lt;nn&gt;&lt;str&gt;</b>	<n>: 00-07 <str>: message contents	Define message contents for digital input 0-7
Config digital inputs recover sms		<n>: 08-15 <str>: message contents	
Require inputs status	<b>IOIS</b>		
Open output	<b>IOOH&lt;nnnnnnnn&gt;</b>	<nnnnnnnn>: one-digit or multidigit numeral	For example, to open all outputs the command is <b>IOOL01234567</b> open output 2 and output 3, command is <b>IOOL23</b>
Close output	<b>IOOL&lt;nnnnnnnn&gt;</b>		
Output pulse	<b>IOOP&lt;nnnnnnnn&gt;</b>		
Require outputs status	<b>IOOS</b>		
config low value for each AD input	<b>AIN&lt;n&gt;L&lt;val&gt;</b>	<n>: 0-3 (input index) val: 0-255	
config high value for each AD input	<b>AIN&lt;n&gt;H&lt;val&gt;</b>		
Require preset rang for each AD input	<b>AIN&lt;n&gt;R</b>	<n>: 0-3 (input index)	
Require current value for all AD inputs	<b>ADS</b>		
Arm	<b>BF</b>		
Disarm	<b>CF</b>		

## 2. All SMS commands

### ➤ Config CS number

Function	Commands	Value	Note
Config CS numbers	Add number: <b>CS&lt;n&gt;&lt;phone&gt;</b>	<n>: 0 to 9 <phone>: number or null	
	Require number: <b>CS&lt;n&gt;?</b>		
	Require all number: <b>CS?</b>		
	Delete number: <b>CS&lt;n&gt;</b>		

### ➤ Config base parameters

Function	Commands	Value	Note
Serial port rate	Write: <b>UB&lt;Bps&gt;</b>	<Bps>: 2400-115200	Default is 9600
	Read: <b>UB?</b>		
Serial port parity	Write: <b>UP&lt;Parity&gt;</b>	<>Parity>: 0-5 0: None 1: ODD 2: EVEN 3: MARK 0 4: MARK 1	Default is none
	Read: <b>UP?</b>		
Device ID	Write: <b>ID&lt;Str&gt;</b>	<Str>: 8 characters (ASCII code or null character)	Default is null
	Read: <b>ID?</b>		
Country code	Write: <b>CC&lt;Code&gt;</b>	<Code>: Country code	Default is null
	Read: <b>CC?</b>		
Basic description	Write: <b>DESC&lt;Str&gt;</b>	<Str>: characters	
	Read: <b>DESC?</b>		
Need daily report or not	Write: <b>DAS&lt;En&gt;</b>	<En>: 0 or 1 0: disable 1: enable	Daily report at 10 am
	Read: <b>DAS?</b>		
alarm when GSM signal low	Write: <b>SIGNALA&lt;En&gt;</b>	<En>: 0 or 1 0: disable 1: enable	GSM signal normal range is 18-30 , RTU5011 will send alarm sms to user when the value of GSM signal below 11
	Read: <b>SIGNALA?</b>		
Send prooftime sms to CS when powerup	Write: <b>PRTCS&lt;En&gt;</b>	<En>: 0 or 1 0: disable 1: enable	RTU5011 will send sms to CS0 number to request proof time
	Read: <b>PRTCS?</b>		
reply sms for remote	Write: <b>RPLSUC&lt;En&gt;</b>	<En>: 0 or 1	RTU5011 would reply

successful sms commands	Read: <b>RPLSUC?</b>	0: disable 1: enable	sms if user has sent correct sms commands.
reply sms for remote incorrect sms commands	Write: <b>RPLERR&lt;En&gt;</b>	<En>: 0 or 1	RTU5011 would reply sms if user has sent incorrect sms commands.
	Read: <b>RPLERR?</b>	0: disable 1: enable	

### Config alarm parameters

Function	Commands	Value	Note
When alert, sms resend times	Write: <b>IOAT&lt;n&gt;</b>	<n>: 1-255 (times)	
	Read: <b>IOAT?</b>		
ring when alert	Write: <b>ARING&lt;En&gt;</b>	<En>: 0,1 0: disable 1: enable	
	Read: <b>ARING?</b>		
Auto answer call for service numbers	Write: <b>ASC&lt;En&gt;</b>	<En>: 0,1 0: disable 1: enable	
	Read: <b>ASC?</b>		
Auto add basic description with alert sms	Write: <b>AWB&lt;En&gt;</b>	<En>: 0,1 0: disable 1: enable	
	Read: <b>AWB?</b>		
Delay send sms time when alarm	Write: <b>INDLY&lt;n&gt;</b>	<n>: 0-255 (second) 0: disable	
	Read: <b>INDLY?</b>		
Holding time after disarm	Write: <b>OUTDLY&lt;n&gt;</b>	<n>: 0-255 (second) 0: disable	
	Read: <b>INDLY?</b>		

### Config digital input parameters

Function	Commands	Value	Note
Config type of input and output	Write: <b>IOTP&lt;Type str&gt;</b>	<Type str>: nnnnnnnnxxxxxxxx (nnnnnnnn: eight-digit input type string xxxxxxxx: eight-digit output type string)	<b>Input type:</b> 0:NC 1: TO OPEN ALARM (EDGE) 2: TO OPEN ALARM(LEVEL) 3: TO CLOSE ALARM (EDGE) 4: TO CLOSE ALARM(LEVEL) <b>Output type:</b> 0: disable 1: OC 2: BUZZER 3: SNAPSHOT 4: SIREN
	Read: <b>IOTP?</b>		
Read outputs status	<b>IOOS</b>		

Read inputs status	<b>IOIS</b>		
Disable inputs alarm	Write: <b>IOIP&lt;nnnnnnnn &gt;</b>	<nnnnnnnn>: one-digit or multidigit numeral	For example, disable input1 , command is <b>IOIP1</b> , disable input0-3,command is <b>IOIP0123</b>
	Read: <b>IOIP?</b>		
Enable inputs alarm	Write <b>IOIC&lt;nnnnnnnn &gt;</b>	<nnnnnnnn>: one-digit or multidigit numeral	For example, enable input1 , command is <b>IOIC1</b> , enable input0-3,command is <b>IOIC0123</b>
	Read <b>IOIC?</b>		
Need or nor use input1 as arm control	Write: <b>L1DEF&lt;En&gt;</b>	<En>: 0,1 0: disable 1: enable	
	Read: <b>L1DEF?</b>		

### Define alarm/recover sms of digital input

Function	Commands	Value	Note
Define message contents of alarm	Write: <b>S&lt;nn&gt;&lt;str&gt;</b>	<n>: 00-07	
	Read: <b>S&lt;nn&gt;?</b>	<str>: message contents	
Define message contents of recover	Write: <b>S&lt;nn&gt;&lt;str&gt;</b>	<n>: 08-15	
	Read: <b>S&lt;nn&gt;?</b>	<str>: message contents	

### Input timeouts

Function	Commands	Value	Note
Alarm sms limit interval	Write: <b>IOAS&lt;n&gt;,&lt;time&gt;</b>	<n>: 0~7(input index) <time>: 0-255 (min)	
	Read: <b>IOAS&lt;n&gt;?</b>	0: disable	
Alarm sms resend interval	Write: <b>IOLS&lt;n&gt;,&lt;time&gt;</b>	<n>: 0~7(input index) <time>: 0-255 (min)	
	Read: <b>IOLS&lt;n&gt;?</b>	0: disable	
Alarm ensure timeout	Write: <b>DINDLY&lt;n&gt;,&lt;time&gt;</b>	<n>: 0~7(input index) <time>: 0-255 (sec)	
	Read: <b>DINDLY?</b>	0: disable	

### Config names of digital inputs and outputs

Function	Commands	Value	Note
Config names of digital inputs	Write: <b>I&lt;nn&gt;&lt;str&gt;</b>	<nn>: 00-07 <str>: name	
	Read: <b>I&lt;nn&gt;?</b>		
Config names of outputs	Write: <b>O&lt;nn&gt;&lt;str&gt;</b>	<nn>: 00-07 <str>: name	
	Read: <b>O&lt;nn&gt;?</b>		

## 📌 Outputs

Function	Commands	Value	Note
Read outputs status	<b>IOOS</b>		
Open output	<b>IOOL&lt;nnnnnnnn&gt;</b>	<nnnnnnnn>: one-digit or multidigit numeral	For example, open all outputs. command is <b>IOOL01234567</b>
Close output	<b>IOOH&lt;nnnnnnnn&gt;</b>	<nnnnnnnn>: one-digit or multidigit numeral	For example, close output0 1 2 3 command is <b>IOOL0123</b>
Config pulse time	Write: <b>IOPO&lt;n&gt;</b>	<n>:0~10000(sec)	Default is 1 second
	Read: <b>IOPO?</b>		
Output 1s pulse	<b>IOOP&lt;nnnnnnnn&gt;</b>	<nnnnnnnn>: one-digit or multidigit numeral	
Remember outputs status	Write: <b>IOOR&lt;En&gt;</b>	<En>: 0,1 0: disable 1: enable	
	Read: <b>IOOR?</b>		

## 📌 Siren

Function	Commands	Value	Note
Persist timespan of siren	Write: <b>IOHT&lt;n&gt;</b>	<n>: 0-255 (min)	
	Read: <b>IOHT?</b>		

## 📌 Config AD inputs

Function	Commands	Value	Note
Preset low value for AD inputs	Write: <b>AIN&lt;n&gt;L&lt;val&gt;</b>	<n>: 0-3 (input index)	
	Read: <b>AIN&lt;n&gt;L?</b>	<val>: 0-255	
Preset high value for AD inputs	Write: <b>AIN&lt;n&gt;H&lt;val&gt;</b>	<n>: 0-3 (input index)	
	Read: <b>AIN&lt;n&gt;?</b>	<val>: 0-255	
Scale value	Write: <b>AIN&lt;n&gt;SC&lt;val&gt;</b>	<n>: 0-3 (input index)	
	Read: <b>AIN&lt;n&gt;SC?</b>	<val>: 0-255	
Base value	Write: <b>AIN&lt;n&gt;ZE&lt;val&gt;</b>	<n>: 0-3 (input index)	
	Read: <b>AIN&lt;n&gt;ZE?</b>	<val>: 0-255	
Query preset rang for AD inputs	<b>AIN&lt;n&gt;R</b>	<n>: 0-3 (input index)	
Query current value for AD inputs	<b>AIN&lt;n&gt;C</b>	<n>: 0-3 (input index)	



Query current value for all AD inputs	<b>ADS</b>		
Enable AD input alarm	<b>AINON&lt;xxxx&gt;</b>	<xxxx>: one-digit or multidigit numeral	For example: AINON01
Disable AD input alarm	<b>AINOFF&lt;xxxx&gt;</b>	<xxxx>: one-digit or multidigit numeral	
Minimum time of twice AD alarm sms	Write: <b>AINAS&lt;n&gt;</b>	<n>: 0-255 (min)	
	Read: <b>AINAS?</b>	0: disable	
Interval of resend AD alarm state sms	Write: <b>AINLS&lt;n&gt;</b>	<n>: 0-255 (min)	
	Read: <b>AINLS?</b>	0: disable	
Timespan of ensure AD alarm	Write: <b>AINDLY&lt;n&gt;</b>	<n>: 0-255 (sec)	
	Read: <b>AINDLY?</b>	0: disable	

#### 📌 Config alarm/recover sms of AD inputs

Function	Commands	Value	Note
Config alarm sms	<b>S&lt;nn&gt;&lt;str&gt;</b>	<n>: 16-19 <Str>: message contents	
Config recover sms	<b>S&lt;nn&gt;&lt;str&gt;</b>	<n>: 20-23 <Str>: message contents	

#### 📌 Config names of AD inputs

Function	Commands	Value	Note
Config names of AD inputs	Write: <b>A&lt;nn&gt;&lt;str&gt;</b>	<n>: 00-03	
	Read: <b>A&lt;nn&gt;?</b>	<str>: name	

#### 📌 Buzzer and siren

Function	Commands	Value	Note
Enable or disable buzzer	<b>BUZEN&lt;En&gt;</b>	<En>: 0,1 0: disable 1: enable	
Buzzer alarm interval	Write: <b>BUZT&lt;n&gt;</b>	<n>: 0-255 (min)	
	Read: <b>BUZT?</b>		
Persist timespan of siren	Write: <b>IOHT&lt;n&gt;</b>	<n>: 0-255 (min)	
	Read: <b>IOHT?</b>		

### 📌 Config internal temperature sensor

Function	Commands	Note
Preset lower limit for temperature range	<b>TMPL&lt;val&gt;</b>	<val>: -127~127
Preset upper limit for temperature range	<b>TMLH&lt;val&gt;</b>	<val>: -127~127
Query temperature range	<b>TMPR</b>	
Query current temperature	<b>TMPC</b>	
Disable temperature alarm	<b>TMPOFF</b>	
enable temperature alarm	<b>TMPON</b>	

### 📌 Power parameters

Function	Commands	Note
Time of ensure power alarm	Write: <b>POWDLY&lt;n&gt;</b>	<n>: 0-255 (sec) , 0 is disable
	Read: <b>POWDLY?</b>	
Enable or disable power lost alarm	<b>BATEN&lt;n&gt;</b>	<En>: 0,1 0: disable 1: enable
Query power status	<b>POW</b>	

### 📌 Realtime interlock


Function	Commands	Value	Note
Config action of output	Write <b>IOOC&lt;nnnnnnnn&gt; &lt;xxxxxxxx&gt;</b>	<nnnnnnnn>: Output 0-7 channel action when alert by “link with”	
	Read <b>IOOC?</b>	<xxxxxxxx>: Output 0-7 channel action when recover by “link with”	
Link with	Write <b>IOOA&lt;n&gt;&lt;index&gt;</b>	<n>:0-7	
	Read <b>IOOA?</b>	<Index>: the index of “link with”	

n or x	Index
OPEN	0
CLOSE	1
CLOSE PULSE	2
CLOSE 300 SECOND	3
NONE	4

Link with	Index	Link with	Index
NONE	0	7 input alert	8
0 input alert	1	0 AD alert	9
1 input alert	2	1 AD alert	10
2 input alert	3	2 AD alert	11
3 input alert	4	3 AD alert	12
4 input alert	5	Interior temperature alert	13
5 input alert	6	System power down	14
6 input alert	7	Server call	15

For example: config output0 close when input3 alert and output0 open when input3 recover

Linkage outputs



Output	When alert	When recover	Link with
No. 0	1: CLOSE	0: OPEN	3 INPUT ALERT

The sms command is:  
**IOOC1111111104444444**  
**IOOA04**

### Timers

Function	Commands	Value
System timers	Write: <b><i>mtimer</i></b> <n>=<HH>, <MM>, <action>	<n>: 0-5 <HH>: 0-24 (hour)
	Read one of them: <b><i>mtimer</i></b> <n> ?	<MM>: 0-60 (minute)
	Read all: <b><i>mtimer</i></b> ?	<action>: 0-28
Minutes timers	Write: <b><i>mspan</i></b> <n>=<span>, <action>	<n>: 0-3
	Read one of them: <b><i>mspan</i></b> <n> ?	<span>: 0-65535(minute)
	Read all: <b><i>mspan</i></b> ?	<action>: 0-28
Second timers	Write: <b><i>sspan</i></b> <n>=<span>, <action>	<n>: 0-3
	Read one of them: <b><i>sspan</i></b> <n> ?	<span>: 0-65535(sec)
	Read all: <b><i>sspan</i></b> ?	<action>: 0-28
Weekly timers	Write: <b><i>mdate</i></b> <n>=<date>, <HH>, <MM>, <action>	<n>: 0-6 <day>: 0-6 (day)
	Read one of them: <b><i>mdate</i></b> <n> ?	<HH>: 0-24 (hour)
	Read all: <b><i>mdate</i></b> ?	<MM>: 0-60 (minute) <action>: 0-28

Execute action	index	Execute action	index
none	0	Snapshot	15
Disarm	1	Send daily report	16
Arm	2	Uart0 print status	17
Driver D00 (output0 close)	3	Upload status sms	18
Driver D01 (output1 close)	4	Exec usercmd 0	19
Driver D02 (output2 close)	5	Exec usercmd 1	20
Driver D03 (output3 close)	6	Exec usercmd 2	21
Switch off D00 (output0 open)	7	Exec usercmd 3	22
Switch off D01 (output1 open)	8	Exec usercmd 4	23
Switch off D02 (output2 open)	9	Exec usercmd 5	24
Switch off D03 (output3 open)	10	Exec usercmd 6	25
Pulse D00 (output0 pulse)	11	GPRS upload	26
Pulse D01 (output1 pulse)	12	Buzzer notify	27
Pulse D02 (output2 pulse)	13	Howl alarm	28
Pulse D03 (output3 pulse)	14		

#### Define users commands

Function	Commands	Value	Note
System command	Write: <b>Y&lt;nn&gt;&lt;str&gt;</b>	<n> : 00-09	
	Read: <b>Y&lt;nn&gt;?</b>	<str> : system command	
User command	Write: <b>U&lt;nn&gt;&lt;str&gt;</b>	<n> : 00-09	
	Read: <b>U&lt;nn&gt;?</b>	<str> : define command	