

# 4 Status Control Commands

## 4.1. AT+CPAS Mobile Equipment Activity Status

The Execution Command queries the module's activity status.

AT+CPAS Mobile Equipment Activity Status	
Test Command <b>AT+CPAS=?</b>	Response <b>+CPAS:</b> (list of supported <pas>s)  <b>OK</b>
Execution Command <b>AT+CPAS</b>	Response TA returns the activity status of ME: <b>+CPAS: &lt;pas&gt;</b>  <b>OK</b> <b>ERROR</b>  If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms
Reference 3GPP TS 27.007	

### Parameter

<b>&lt;pas&gt;</b>	<u>0</u>	Ready
	3	Ringing
	4	Call in progress or call hold

### Example

<b>AT+CPAS</b>	
<b>+CPAS: 0</b>	//The module is idle
<b>OK</b>	

**RING**

**AT+CLCC**

+CLCC: 1,1,4,0,0,“15695519173”,161

**OK**

**AT+CPAS**

+CPAS: 3 //The module is ringing

**OK**

**AT+CLCC**

+CLCC: 1,0,0,0,0,“10010”,129

**OK**

**AT+CPAS**

+CPAS: 4 //Call in progress

**OK**

## 4.2. AT+CEER Extended Error Report

The command is used to query an extended error and report the cause of the last failed operation, such as:

- the failure to release a call
- the failure to set up a call (both mobile originated or terminated)
- the failure to modify a call by using supplementary services
- the failure to activate, register, query, deactivate or deregister a supplementary service
- the failure to attach GPRS or the failure to activate a PDP context
- the failure to detach GPRS or the failure to deactivate a PDP context

The release cause <text> is a text to describe the cause information given by the network.

### AT+CEER Extended Error Report

Test command	Response
<b>AT+CEER=?</b>	<b>OK</b>
Execution command	Response
<b>AT+CEER</b>	+CEER: <text>
OK	
ERROR	
If error is related to ME functionality:	

	<b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

## Parameter

<text>	Release cause text. Reason for the last call failure to setup or release (listed in <b>Chapter 14.9</b> ). Both CS and PS domain call types are reported. Cause data is captured from Call Manager events and cached locally for later use by this command.
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## 4.3. AT+QCFG Extended Configuration Settings

The command is used to query and configure various settings of UE.

AT+QCFG Extended Configuration Settings	
Test Command <b>AT+QCFG=?</b>	<p>Response</p> <p><b>+QCFG: "gprsattach",</b> (list of supported &lt;attachmode&gt;s)</p> <p><b>+QCFG: "nwscanmode",</b> (list of supported &lt;scanmode&gt;s), (list of supported &lt;effect&gt;s)</p> <p><b>+QCFG: "nwscanseq",</b> (list of supported &lt;scanseq&gt;s), (list of supported &lt;effect&gt;s)</p> <p><b>+QCFG: "roamservice",</b> (list of supported &lt;roammode&gt;s), (list of supported &lt;effect&gt;s)</p> <p><b>+QCFG: "servicedomain",</b> (list of supported &lt;service&gt;s), (list of supported &lt;effect&gt;s)</p> <p><b>+QCFG: "band",</b> (list of supported &lt;bandval&gt;s), (list of supported &lt;ltebandval&gt;s) (list of supported &lt;effect&gt;s)</p> <p><b>+QCFG: "hsdpacat",</b> (list of supported &lt;cat&gt;s)</p> <p><b>+QCFG: "hsupacat",</b> (list of supported &lt;cat&gt;s)</p> <p><b>+QCFG: "rrc",</b> (list of supported &lt;rrcr&gt;s)</p>

	<p>+QCFG: "sgsn",          (list of supported &lt;sgsnr&gt;s)</p> <p>+QCFG: "msc",(list of supported &lt;mscr&gt;s)</p> <p>+QCFG: "pdp/duplicatechk",(list of supported &lt;enable&gt;s)</p> <p>+QCFG: "tdscsq",(list of supported &lt;value&gt;s)</p> <p>+QCFG: "urc/ri/ring",(list of supported &lt;typeri&gt;s),          (list of supported &lt;pulseduration&gt;s),          (list of supported &lt;activeduration&gt;s),          (list of supported &lt;inactiveduration&gt;s),          (list of supported &lt;ringnodisturbing&gt;s)</p> <p>+QCFG: "urc/ri/smsincoming",          (list of supported &lt;typeri&gt;s),          (list of supported &lt;pulseduration&gt;s)</p> <p>+QCFG: "urc/ri/other",          (list of supported &lt;typeri&gt;s),          (list of supported &lt;pulseduration&gt;s)</p> <p>+QCFG: "risignatype",          (list of supported &lt;risignatype&gt;s)</p> <p>+QCFG: "urc/cache",          (list of supported &lt;value&gt;s)</p> <p>+QCFG: "tone/incoming"          (list of supported &lt;value&gt;s)</p>
	<b>OK</b>
Maximum Response Time	300ms
Reference	

#### 4.3.1. AT+QCFG="gprsattach" GPRS Attach Mode Configuration

The command specifies the mode to attach GPRS when UE is powered on. This configuration is valid only after the module is restarted.

##### AT+QCFG="gprsattach" GPRS Attach Mode Configuration

Write Command

**AT+QCFG="gprsattach"[,<attachmode>]**

Response

If <attachmode> is omitted, return current configuration:  
**+QCFG: "gprsattach",<attachmode>**

**OK**

If the configuration parameter <attachmode> is not omitted, configure the GPRS attach mode:

**OK**

	<b>ERROR</b>
	If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

## Parameter

<b>&lt;attachmode&gt;</b>	Number format, the mode to attach GRPS when UE is powered on 0 Manual attach 1 Auto attach
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### 4.3.2. AT+QCFG="nwscanmode" Network Search Mode Configuration

The command specifies the network mode to be searched. If **<effect>** is omitted, the configuration will take effect immediately.

<b>AT+QCFG="nwscanmode" Network Search Mode Configuration</b>	
Write Command	Response
<b>AT+QCFG="nwscanmode"[,&lt;scanmode&gt;[,&lt;effect&gt;]]</b>	If <b>&lt;scanmode&gt;</b> and <b>&lt;effect&gt;</b> are both omitted, return the current configuration: <b>+QCFG: "nwscanmode",&lt;scanmode&gt;</b>
	<b>OK</b>
	If <b>&lt;scanmode&gt;</b> and <b>&lt;effect&gt;</b> are not omitted, set the network mode to be searched: <b>OK</b> <b>ERROR</b>
	If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

## Parameter

<b>&lt;scanmode&gt;</b>	Number format, network search mode 0 AUTO 1 GSM only 2 WCDMA only 3 LTE only
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	4	TD-SCDMA only
	5	UMTS only
	6	CDMA only
	7	HDR only
	8	CDMA and HDR only
<effect>		Number format. When to take effect
	0	Take effect after UE reboots
	1	Take effect immediately

#### 4.3.3. AT+QCFG="nwscanseq" Network Searching Sequence Configuration

The command specifies the sequence of searching network. This configuration is valid only after the module is restarted.

##### AT+QCFG="nwscanseq" Network Searching Sequence Configuration

Write Command	Response
<b>AT+QCFG="nwscanseq"[,&lt;scanseq&gt;]</b>	If <scanseq> is omitted, return current configuration: <b>+QCFG: "nwscanseq",&lt;scanseq&gt;</b> <b>OK</b>
	If <scanseq> is omitted, specify the network searching sequence: <b>OK</b> <b>ERROR</b>
	If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

##### Parameter

<scanseq>	Number format. Network search sequence (e.g.: 04030201(LTE/WCDMA/TD-SCDMA/GSM))
	00 Automatic (LTE/ WCDMA/TD-SCDMA/GSM)
	01 GSM
	02 TD-SCDMA
	03 WCDMA
	04 LTE
	05 CDMA

#### 4.3.4. AT+QCFG="roamservice" Roam Service Configuration

The command is used to enable or disable the roam service. If <effect> is omitted, the configuration will take effect immediately.

##### AT+QCFG="roamservice" Roam Service Configuration

Write Command	Response
<b>AT+QCFG="roamservice"[,&lt;roammod e&gt;[,&lt;effect&gt;]]</b>	If <roammode> and <effect> are both omitted, return the current configuration:  +QCFG: "roamservice",<roammode>
	<b>OK</b>
	If <roammode> and <effect> are not omitted, configure the mode of roam service :
	<b>OK</b>
	<b>ERROR</b>
	If there is any error related to ME functionality:  +CME ERROR: <err>
Maximum Response Time	300ms

#### Parameter

<roammode>	Number format. The mode of roam service
	1 Disable roam service
	2 Enable roam service
	<u>255</u> AUTO
<effect>	Number format. When to take effect
	0 Take effect after UE reboots
	<u>1</u> Take effect immediately

#### 4.3.5. AT+QCFG="servicedomain" Service Domain Configuration

The command specifies the registered service domain. If <effect> is omitted, the configuration will take effect immediately.

##### AT+QCFG="servicedomain" Service Domain Configuration

Write Command	Response
<b>AT+QCFG="servicedomain"[,&lt;service &gt;[,&lt;effect&gt;]]</b>	If <service> and <effect> are both omitted, return the current configuration:

	<p>+QCFG: "servicedomain",&lt;service&gt;</p> <p><b>OK</b></p> <p>If &lt;service&gt; and &lt;effect&gt; are not omitted, configure the service domain of UE:</p> <p><b>OK</b></p> <p><b>ERROR</b></p> <p>If there is any error related to ME functionality:</p> <p><b>+CME ERROR: &lt;err&gt;</b></p>
Maximum Response Time	300ms

## Parameter

<service>	Service domain of UE
0	CS only
1	PS only
<u>2</u>	CS & PS
<effect>	Number format. When to take effect
0	Take effect after UE reboots
<u>1</u>	Take effect immediately

### 4.3.6. AT+QCFG="band" Band Configuration

The command specifies the preferred frequency bands to be searched of UE. If <effect> is omitted, the configuration will take effect immediately.

AT+QCFG="band" Band Configuration	
Write Command	Response
<b>AT+QCFG="band"[,&lt;bandval&gt;,&lt;ltebandval&gt;,&lt;tdsbandval&gt;[,&lt;effect&gt;]]</b>	If configuration parameters are omitted (that is, only execute <b>AT+QCFG="band"</b> ), return current configuration: <b>+QCFG: "band",&lt;bandval&gt;,&lt;ltebandval&gt;,&lt;tdsbandval&gt;</b>
	<b>OK</b>
	If configuration parameters are all entered, configure the preferred frequency bands to be searched:
	<b>OK</b>
	<b>ERROR</b>
	If there is any error related to ME functionality:

	+CME ERROR: <err>
Maximum Response Time	300ms

## Parameter

<bandval>	A hexadecimal value that specifies the GSM and WCDMA frequency band. If it is set to 0, it means not to change GSM and WCDMA frequency band. (e.g.: 00000013=00000001(GSM900)+00000002(GSM1800)+00000010(WCDMA 2100)) 00000000 No change 00000001 GSM900 00000002 GSM1800 00000004 GSM850 00000008 GSM1900 00000010 WCDMA 2100 00000020 WCDMA 1900 00000040 WCDMA 850 00000080 WCDMA 900 00000100 WCDMA 800 00000200 WCDMA 1700 0000FFFF Any frequency band
<ltebandval>	A hexadecimal value that specifies the LTE frequency band. If it is set to 0 or 0x40000000, it means not to change LTE frequency band. (e.g.: 0x15=0x1(LTE B1)+0x4(LTE B3)+0x10(LTE B5)) 0x1 (CM_BAND_PREF_LTE_EUTRAN_BAND1) LTE B1 0x4 (CM_BAND_PREF_LTE_EUTRAN_BAND3) LTE B3 0x10 (CM_BAND_PREF_LTE_EUTRAN_BAND5) LTE B5 0x40 (CM_BAND_PREF_LTE_EUTRAN_BAND7) LTE B7 0x80 (CM_BAND_PREF_LTE_EUTRAN_BAND8) LTE B8 0x80000(CM_BAND_PREF_LTE_EUTRAN_BAND20) LTE B20 0x7FFFFFFFFFFFFFF(CM_BAND_PREF_ANY) Any frequency band
<tdsbandval>	A hexadecimal value that specifies the TD-SCDMA frequency band. If it is set to 0 or 0x40000000, it means not to change TD-SCDMA frequency band. (e.g.: 0x21=0x1(TDS BCA)+0x20(TDS BCF)) 0x1 (CM_BAND_PREF_TDS_BANDA) TDS BCA 0x2 (CM_BAND_PREF_TDS_BANDB) TDS BCB 0x4 (CM_BAND_PREF_TDS_BANDC) TDS BCC 0x8 (CM_BAND_PREF_TDS_BANDD) TDS BCD 0x10 (CM_BAND_PREF_TDS_BANDE) TDS BCE 0x20 (CM_BAND_PREF_TDS_BANDF) TDS BCF
<effect>	When to take effect 0 Take effect after UE reboots

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1 Take effect immediately

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#### 4.3.7. AT+QCFG="hsdpacat" HSDPA Category Configuration

The command specifies the HSDPA category. This configuration is valid only after the module is restarted.

##### AT+QCFG="hsdpacat" HSDPA Category Configuration

Write Command

**AT+QCFG="hsdpacat"[,<cat>]**

Response

If <cat> is omitted, return the current configuration:

+QCFG: "hsdpacat",<cat>

OK

If <cat> is not omitted, configure the HSDPA category:

OK

ERROR

If there is any error related to ME functionality:

+CME ERROR: <err>

Maximum Response Time

300ms

#### Parameter

<b>&lt;cat&gt;</b>	HSDPA category
6	Category 6
8	Category 8
10	Category 10
12	Category 12
14	Category 14
18	Category 18
20	Category 20
<u>24</u>	Category 24

#### 4.3.8. AT+QCFG="hsupacat" HSUPA Category Configuration

The command specifies the HSUPA category. This configuration is valid only after the module is restarted.

##### AT+QCFG="hsupacat" HSUPA Category Configuration

Write Command

**AT+QCFG="hsupacat"[,<cat>]**

Response

If <cat> is omitted, return the current configuration:

+QCFG: "hsupacat",<cat>

	<b>OK</b>  If <cat> is not omitted, configure the HSUPA category: <b>OK</b> <b>ERROR</b>  If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

### Parameter

<cat>	HSUPA category 5 Category 5 <u>6</u> Category 6
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### 4.3.9. AT+QCFG="rrc" RRC Release Version Configuration

The command specifies the RRC release version. This configuration is valid only after the module is restarted.

AT+QCFG="rrc" RRC Release Version Configuration	
Write Command	Response
<b>AT+QCFG="rrc"[,&lt;rrcr&gt;]</b>	If <rrcr> is omitted, return the current configuration: <b>+QCFG: "rrc",&lt;rrcr&gt;</b>  <b>OK</b>  If <rrcr> is not omitted, configure the RRC release version: <b>OK</b> <b>ERROR</b>  If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

### Parameter

<rrcr>	RRC release version. 0 R99
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1	R5
2	R6
3	R7
4	R8

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#### 4.3.10. AT+QCFG="sgsn" UE SGSN Release Version Configuration

The command specifies the UE SGSN release version. This configuration is valid only after the module is restarted.

##### AT+QCFG="sgsn" UE SGSN Release Version Configuration

Write Command <b>AT+QCFG="sgsn"[,&lt;sgsnr&gt;]</b>	Response If <sgsnr> is omitted, return the current configuration: <b>+QCFG: "sgsn",&lt;sgsnr&gt;</b>
	<b>OK</b>  If <sgsnr> is not omitted, configure the SGSN release version: <b>OK</b> <b>ERROR</b>
	If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>

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Maximum Response Time	300ms
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##### Parameter

<b>&lt;sgsnr&gt;</b>	SGSN release version
0	R97
1	R99
2	Dynamic

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#### 4.3.11. AT+QCFG="msc" UE MSC Release Version Configuration

The command specifies the UE MSC release version. This configuration is valid only after the module is restarted.

##### AT+QCFG="msc" UE MSC Release Version Configuration

Write Command <b>AT+QCFG="msc"[,&lt;mscr&gt;]</b>	Response If <mscr> is omitted, return the current configuration: <b>+QCFG: "msc",&lt;mscr&gt;</b>
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	<b>OK</b>  If <mscr> is not omitted, configure the MSC release version: <b>OK</b> <b>ERROR</b>  If there is an error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

## Parameter

<mscr>	MSC release version
0	R97
1	R99
<u>2</u>	Dynamic

### 4.3.12. AT+QCFG="PDP/duplicatechk" Establish Multi PDNs with the Same APN

The command allows/refuses establishing multi PDNs with the same APN profile. The configuration will take effect immediately.

AT+QCFG="pdp/duplicatechk" Establish Multi PDNs with the Same APN	
Write Command	Response
<b>AT+QCFG="pdp/duplicatechk"[,&lt;enable&gt;]</b>	If <enable> is omitted, return the current configuration: <b>+QCFG: "pdp/duplicatechk",&lt;enable&gt;</b>
	<b>OK</b>  If <enable> is not omitted, allow/refuse establishing multiple PDNs with the same APN profile: <b>OK</b> <b>ERROR</b>  If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

## Parameter

<code>&lt;enable&gt;</code>	0	Refused to establish multi PDNs with the same APN profile
	1	Allowed to establish multi PDNs with the same APN profile

### 4.3.13. AT+QCFG="urc/ri/ring" RI Behavior When RING URC is Presented

**AT+QCFG="urc/ri/ring"**, **AT+QCFG="urc/ri/smsincoming"** and **AT+QCFG="urc/ri/other"** control the RI (ring indicator) behavior when a URC is reported. These configurations will be stored into NV automatically. The ring indicator is active low. **AT+QCFG="urc/ri/ring"** specifies the RI behavior when URC **RING** is presented to indicate an incoming call.

The sum of parameter `<activeduration>` and `<inactiveduration>` determines the interval time of “RING” indications when a call is coming.

#### AT+QCFG="urc/ri/ring" RI Behavior When RING URC is Presented

Write Command	Response
<code>AT+QCFG="urc/ri/ring"[,&lt;typeri&gt;[,&lt;pulseduration&gt;[,&lt;activeduration&gt;[,&lt;inactiveduration&gt;[,&lt;ringnodisturbing&gt;]]]]]</code>	If <code>&lt;typeri&gt;</code> , <code>&lt;pulseduration&gt;</code> , <code>&lt;activeduration&gt;</code> , <code>&lt;inactiveduration&gt;</code> and <code>&lt;ringnodisturbing&gt;</code> are omitted, return the current configuration:  <b>+QCFG:</b> <code>"urc/ri/ring",&lt;typeri&gt;,&lt;pulseduration&gt;,&lt;activeduration&gt;,&lt;inactiveduration&gt;,&lt;ringnodisturbing&gt;,&lt;pulsecount&gt;</code>
	<b>OK</b>
	If all configuration parameters are entered, set the RI behavior when <b>RING</b> URC is presented:  <b>OK</b> <b>ERROR</b>
	If there is any error related to ME functionality:  <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

## Parameter

<code>&lt;typeri&gt;</code>	RI behavior when URCs are presented
"off"	No change. Ring indicator keeps inactive.
"pulse"	Pulse. Pulse width determined by <code>&lt;pulseduration&gt;</code> .
"always"	Change to active. RI behavior can be restored to inactive by <b>AT+QRIR</b> .

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	"auto"	When "RING" is presented to indicate an incoming call, the ring indicator changes to and keeps active. When ring of the incoming call ends, either answering or hanging up the incoming call, the ring indicator will change to inactive.
	"wave"	When <b>RING</b> is presented to indicate an incoming call. The ring indicator outputs a square wave. Both <b>&lt;activeduration&gt;</b> and <b>&lt;inactiveduration&gt;</b> are used to set parameters of the square wave. When the ring of incoming call ends, either answering or hanging up the incoming call, the ring indicator will change to inactive.
<b>&lt;pulseduration&gt;</b>		Set the width of pulse. The value ranges from 1 to 2000ms and the default is 120ms. This parameter is only meaningful when <b>&lt;typeri&gt;</b> is "pulse". If this parameter is not needed, it can be set as null.
<b>&lt;activeduration&gt;</b>		The active duration of the square wave. The value ranges from 1 to 10000ms, and the default is 1000ms. This parameter is only meaningful when <b>&lt;typeri&gt;</b> is "wave".
<b>&lt;inactiveduration&gt;</b>		Set the inactive duration of the square wave. The value ranges from 1 to 10000ms, and the default is 5000ms. This parameter is only meaningful when <b>&lt;typeri&gt;</b> is "wave".
<b>&lt;ringnodisturbing&gt;</b>		Set whether the ring indicator behavior could be disturbed. This parameter is only meaningful when <b>&lt;typeri&gt;</b> is configured to "auto" or "wave". For example, when <b>&lt;typeri&gt;</b> is configured to "wave", if the square wave does not need to be disturbed by other URCs (including SMS related URCs), then <b>&lt;ringnodisturbing&gt;</b> should be set to "on".
	<u>"off"</u>	RI behavior can be disturbed by other URCs when the behavior is caused by an incoming call ringing.
	"on"	RI behavior cannot be disturbed by other URCs when the behavior is caused by an incoming call ringing.
<b>&lt;pulsecount&gt;</b>		The count of pulse. This parameter is only meaningful when <b>&lt;typeri&gt;</b> is "pulse". The value ranges from 1 to 5 and the default is 1. The interval time between two pulses is equal to <b>&lt;pulseduration&gt;</b> .

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#### 4.3.14. AT+QCFG="urc/ri/smsincoming" RI Behavior When Incoming SMS URCs are Presented

The command specifies the RI (ring indicator) behavior when related incoming message URCs are presented. Related incoming message URCs list: +CMTI, +CMT, +CDS and +CBM.

AT+QCFG="urc/ri/smsincoming" RI Behavior When Incoming SMS URCs are Presented	
Write Command <b>AT+QCFG="urc/ri/smsincoming"[,&lt;typ eri&gt;[,&lt;pulseduration&gt;]]</b>	<p>Response</p> <p>If &lt;typeri&gt; and &lt;pulseduration&gt; are omitted, return the current configuration:</p> <p>+QCFG: "urc/ri/smsincoming",&lt;typeri&gt;,&lt;pulseduration&gt;,&lt;pulse count&gt;</p> <p>OK</p> <p>If &lt;typeri&gt; and &lt;pulseduration&gt; are not omitted, set the RI behavior when incoming SMS URCs are presented:</p> <p>OK</p> <p>ERROR</p> <p>If there is any error related to ME functionality:</p> <p>+CME ERROR: &lt;err&gt;</p>
Maximum Response Time	300ms

#### Parameter

<b>&lt;typeri&gt;</b>	RI behavior when URCs are presented "off" No change. Ring indicator keeps inactive. "pulse" Pulse. Pulse width determined by <pulseduration>. "always" Change to active. RI behavior can be restored to inactive by <b>AT+QRIR</b> .
<b>&lt;pulseduration&gt;</b>	Set the width of pulse. Value ranges from 1 to 2000ms and the default is 120ms. This parameter is only valid when <typeri> is "pulse".
<b>&lt;pulsecount&gt;</b>	The count of pulse. This parameter is only meaningful when <typeri> is "pulse". The value ranges from 1 to 5 and the default is 1. The interval time between two pulses is equal to <pulseduration>.

#### 4.3.15. AT+QCFG="urc/ri/other" RI Behavior When Other URCs are Presented

The command specifies the RI (ring indicator) behavior when other URCs are presented.

##### AT+QCFG="urc/ri/other" RI Behavior When Other URCs are Presented

Write Command	Response
<b>AT+QCFG="urc/ri/other"[,&lt;typeri&gt;[,&lt;pulseduration&gt;]]</b>	If <typeri> and <pulseduration> are omitted, return the current configuration:  +QCFG: "urc/ri/other",<typeri>,<pulseduration>,<pulsecount>
	<b>OK</b>
	If <typeri> and <pulseduration> are not omitted, set the RI behavior when other URCs are presented:  <b>OK</b> <b>ERROR</b>
	If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

#### Parameter

<b>&lt;typeri&gt;</b>	RI behavior when URCs are presented "off" No change. Ring indicator keeps inactive. "pulse" Pulse. Pulse width determined by <pulseduration>.
<b>&lt;pulseduration&gt;</b>	Set the width of pulse. Value ranges from 1 to 2000ms and the default is 120ms. This parameter is effect only when <typeri> is "pulse".
<b>&lt;pulsecount&gt;</b>	The count of pulse. This parameter is only meaningful when <typeri> is "pulse". The value ranges from 1 to 5 and the default is 1. The interval time between two pulses is equal to <pulseduration>.

#### 4.3.16. AT+QCFG="risignaltype" RI Signal Output Carrier

The command specifies the RI (ring indicator) signal output carrier.

##### AT+QCFG="risignaltype" RI Signal Output Carrier

Write Command	Response
<b>AT+QCFG="risignaltype",[&lt;risignaltype&gt;]</b>	If <risignaltype> is omitted, return the current configuration:  +QCFG: "risignaltype",<risignaltype>

	<b>OK</b>  If <risignatype> is not omitted, configure the RI signal output carrier: <b>OK</b> <b>ERROR</b>  If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

## Parameter

<risignatype>	RI signal output carrier. <u>"respective"</u> The ring indicator behaves on the port where URC is presented. For example, if a URC is presented on UART port, it is physical ring indicator. If the URC is presented on USB port, it is virtual ring indicator. If the URC is presented on USB AT port, and the port does not support ring indicator, then there will be no ring indicator. <b>AT+QURCCFG="urcport"</b> can get the port on which URC is presented. <u>"physical"</u> No matter which port URC is presented on, URC only causes the behavior of physical ring indicator.
---------------	---

### 4.3.17. AT+QCFG="urc/delay" Delay URC Indication

The command can delay the output of URC indication until ring indicator pulse ends.

AT+QCFG="urc/delay" Delay URC Indication	
Write Command <b>AT+QCFG="urc/delay"[,&lt;enable&gt;]</b>	Response If <enable> is omitted, return the current configuration : <b>+QCFG: "urc/delay",&lt;enable&gt;</b>  <b>OK</b>  If <enable> is not omitted, set when the URC indication will be outputted: <b>OK</b> <b>ERROR</b>  If there is any error related to ME functionality:

	<b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

## Parameter

**<enable>**      0      URC indication will be outputted when ring indicator pulse starts.  
                         1      URC indication will be outputted when ring indicator pulse ends (only effective when the type of ring indicator is "pulse". Please refer to **AT+QCFG="urc/ri/ring"**, **AT+QCFG="urc/ri/smsincoming"** and **AT+QCFG="urc/ri/other"** for more details).

### 4.3.18. **AT+QCFG="urc/cache"** URC Cache Function

<b>AT+QCFG="urc/cache" URC Cache Function</b>	
Write Command	Response
<b>AT+QCFG="urc/cache",&lt;enable&gt;</b>	If <b>&lt;enable&gt;</b> is omitted, return the current configuration: <b>+QCFG: "urc/cache",&lt;enable&gt;</b>
	<b>OK</b>
	If <b>&lt;enable&gt;</b> is not omitted, enable/disable URC cache function: <b>OK</b> <b>ERROR</b>
	If there is any error related to ME functionality: <b>+CME ERROR: &lt;err&gt;</b>
Maximum Response Time	300ms

## Parameter

**<enable>**      0      Disable URC cache  
                         1      Enable URC cache

### NOTE

The settings of the command will take effect immediately and will not be saved after power off.

## Example

```

AT+QCFG="urc/cache"
+QCFG: "urc/cache",0      //URC cache function is disabled

OK
AT+QCFG="urc/cache",1    //Enable URC cache
OK
AT+QCFG="urc/cache"
+QCFG: "urc/cache",1

OK

//Make a call and send two messages to the module

AT+QCFG="urc/cache",0    //Disable URC cache
OK

RING                      //Output cached URC

NO CARRIER                //Output cached URC

+CMTI: "ME",0              //Output cached URC

+CMTI: "ME",1              //Output cached URC
AT+QCFG="urc/cache"
+QCFG: "urc/cache",0      //URC cache function is disabled

OK

```

### 4.3.19. AT+QCFG="tone/incoming" Ring tone Function

#### AT+QCFG="tone/incoming" Ring Tone Function

Write Command

**AT+QCFG="tone/incoming",<enable>**

Response

If <enable> is omitted, return the current configuration:

**+QCFG: "tone/incoming",<enable>**

**OK**

If <enable> is not omitted, enable/disable ring tone function:

**OK**

**ERROR**

If there is any error related to ME functionality:  
**+CME ERROR: <err>**

Reference

## Parameter

- |                       |          |                        |
|-----------------------|----------|------------------------|
| <b>&lt;enable&gt;</b> | <u>0</u> | Disable ring tone      |
|                       | 1        | Enable Nokia ring tone |
|                       | 2        | Enable ring tone       |

### NOTE

The settings of the command will take effect immediately, and will be saved after power off.

## Example

```
AT+QCFG="tone/incoming"
+QCFG: "tone/incoming",0          //Ring tone function is disabled
OK
AT+QCFG="tone/incoming",1        //Enable ring tone
OK
AT+QCFG="tone/incoming"
+QCFG: "tone/incoming",1
OK
```

## 4.4. AT+QINDCFG URC Indication Configuration

The command is used to control URC indication.

### AT+QINDCFG URC Indication Configuration

Test command	Response
<b>AT+QINDCFG=?</b>	<b>+QINDCFG: "all",(0,1),(0,1)</b>
	<b>+QINDCFG: "csq",(0,1),(0,1)</b>
	<b>+QINDCFG: "smsfull",(0,1),(0,1)</b>
	<b>+QINDCFG: "ring",(0,1),(0,1)</b>
	<b>+QINDCFG: "smsincoming",(0,1),(0,1)</b>
	<b>+QINDCFG: "act",(0,1),(0,1)</b>