



# DSM4

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## SMS COMMANDS

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## List of all parameters.

Parameter	Description	Options	Response	Default value
<b>P10</b>	APN name	Read and Set	Yes	<i>internet</i>
<b>P11</b>	Reserved for server IP address			
<b>P12</b>	Reserved for server PORT			
<b>P13</b>	Sleep time	Read and Set	Yes	<i>24</i>
<b>P14</b>	Up time	Read and Set	Yes	<i>10</i>
<b>P15</b>	GPS module	Read and Set	Yes	<i>0</i>
<b>P16</b>	2,4 GHz Transmitter	Read and Set	Yes	<i>0</i>
<b>P17</b>	GPS timeout	Read and Set	Yes	<i>3</i>
<b>P18</b>	GSM timeout	Read and Set	Yes	<i>5</i>
<b>P19</b>	GPS quality	Read and Set	Yes	<i>0</i>
<b>P20</b>	User1 phone number	Read and Set	Yes	<i>empty</i>
<b>P21</b>	User2 phone number	Read and Set	Yes	<i>Empty</i>
<b>P22</b>	Text format for GPS position	Read and Set	Yes	<i>0</i>
<b>ID</b>	Request serial number, firmware version and IMEI	Read	Yes	-
<b>STATUS</b>	Request actual status of device	Read	Yes	-
<b>CELLPOS</b>	Request position based on GSM cells	Read	Yes	-
<b>GPS</b>	Request actual GPS position	Read	Yes	-
<b>FACTORY</b>	Restore factory settings	Read	Yes	-
<b>ALARM</b>	Emergency working mode	Read and Set	Yes	<i>0</i>
<b>RESET</b>	Reset device	Set	No	-

## Description of parameters.

This section describes all parameters used in device. Each parameter can be accessed by SMS commands, in case of need, parameter can be modified. Almost all parameters are stored in the non-volatile memory, in case if power loss parameter value will not be changed.

### P10 APN name

<b>Description</b>	APN (Access Point Name), used to established GPRS communication. APN is provided by GSM operator.
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	Any ASCII characters, maximal length 32 bytes
<b>Default value</b>	<i>internet</i>
<b>Example</b>	To read parameter: <b>GET P10</b>  To set parameter: <b>SET P10 internet</b>  Response from device: <b>P10: internet</b>

## P11 IP address

<b>Description</b>	Server IP address
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	String of digits, separated by dots.
<b>Default value</b>	<i>empty</i>
<b>Example</b>	To read parameter: <b>GET P11</b>  To set parameter: <b>SET P11 192.168.100.101</b>  Response from device: <b>P11: 192.168.100.101</b>

## P12 PORT

<b>Description</b>	Server PORT number.
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	String of digits, max length 5 bytes.
<b>Default value</b>	<i>empty</i>
<b>Example</b>	To read parameter: <b>GET P12</b>  To set parameter: <b>SET P12 12345</b>  Response from device: <b>P12: 12345</b>

## P13 SLEEP time

<b>Description</b>	Defines duration of sleep time, after which device will wake and send STATUS message to the defined phone number. Parameter value equals to hours, for example, setting parameter to 48, STATUS message will be sent once per 48 hours.
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	<b>1-250</b>
<b>Default value</b>	<i>24</i>
<b>Example</b>	To read parameter: <b>GET P13</b>  To set parameter: <b>SET P13 6</b>  Response from device: <b>P13: 6</b>

## P14 Up time

<b>Description</b>	Defines duration of time, after which device will enter to sleep mode. Parameter value equals to minutes, for example, setting parameter to 10, device will stay online for 10 minutes after which will enter sleep mode.
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	<b>1-59</b>
<b>Default value</b>	<i>10</i>
<b>Example</b>	To read parameter: <b>GET P14</b>  To set parameter: <b>SET P14 10</b>  Response from device: <b>P14: 10</b>

## P15 GPS module

<b>Description</b>	Defines whether GPS module is enabled or disabled. In case if parameter set to 1 (GPS enabled), device will keep GPS module active in online mode until position will be detected. In sleep mode GPS module will be switched off.
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	<b>0</b> - GPS disabled <b>1</b> - GPS enabled
<b>Default value</b>	<i>0</i>
<b>Example</b>	To read parameter: <b>GET P15</b>  To set parameter: <b>SET P15 1</b>  Response from device: <b>P15: 1</b>

### P16 2.4 GHz transmitter.

<b>Description</b>	Defines whether 2.4 GHz transmitter is enabled or disabled. In case if parameter set to 1 (transmitter enabled), device will transmit signal all the time – even in sleep mode.
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	<b>0</b> - Transmitter disabled <b>1</b> - Transmitter enabled
<b>Default value</b>	<i>0</i>
<b>Example</b>	To read parameter: <b>GET P16</b>  To set parameter: <b>SET P16 1</b>  Response from device: <b>P16: 1</b>

### P17 GPS timeout

<b>Description</b>	Duration of time allowed searching for GPS position. Parameter value equals to minutes. In case if defined time is reached, device stop searching for GPS position.
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	<b>1 - 250</b>
<b>Default value</b>	<i>3</i>
<b>Example</b>	To read parameter: <b>GET P17</b>  To set parameter: <b>SET P17 5</b>  Response from device: <b>P17: 5</b>

## P18 GSM timeout

<b>Description</b>	Duration of time allowed waiting for registration in GSM network. Parameter value equals to minutes. In case if defined time is reached, device enters sleep mode.
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	<b>1-250</b>
<b>Default value</b>	5
<b>Comments</b>	
<b>Example</b>	To read parameter: <b>GET P18</b>  To set parameter: <b>SET P18 5</b>  Response from device: <b>P18: 5</b>

## P19 GPS signal quality conditions

<b>Description</b>	Parameter defines a condition of GPS signal after which GPS position is considered as detected.
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	<b>0</b> - 2D and 3D position will be considered as actual position <b>1</b> – 3D position will be considered as actual position
<b>Default value</b>	0
<b>Comments</b>	
<b>Example</b>	To read parameter: <b>GET P19</b>  To set parameter: <b>SET P19 1</b>  Response from device: <b>P19: 1</b>

## P20 User phone number Nr1

<b>Description</b>	This parameter defines a user Nr1 phone number for SMS alert reception.
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	Maximal length of number is 32 digits  <b>Note!!!</b> <i>Phone number must be entered with “+” sign and country code, otherwise SMS alert and STATUS will not be sent.</i>
<b>Default value</b>	(empty)
<b>Comments</b>	
<b>Example</b>	To read parameter: <b>GET P20</b>  To set parameter: <b>SET P20 +37198765432</b>  Response from device: <b>P20: +37198765432</b>

## P21 User phone number Nr2

<b>Description</b>	This parameter defines a user Nr2 phone number for SMS alert reception.
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	Maximal length of number is 32 digits  <b>Note!!!</b> <i>Phone number must be entered with “+” sign and country code, otherwise SMS alert and STATUS will not be sent.</i>
<b>Default value</b>	(empty)
<b>Comments</b>	
<b>Example</b>	To read parameter: <b>GET P21</b>  To set parameter: <b>SET P21 +37198765432</b>  Response from device: <b>P21: +37198765432</b>



## P22 Text format for GPS position

<b>Description</b>	This parameter defines a text format for GPS position. If set to 0, device will return GPS position as link to GOOGLE maps. If set to 1, device return GPS position as regular numbers – Longitude and Latitude
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	<b>0</b> – return GPS position as link to GOOGLE maps <b>1</b> - return GPS position as Longitude and Latitude numbers
<b>Default value</b>	0
<b>Comments</b>	
<b>Example</b>	To read parameter: <b>GET P22</b>  To set parameter: <b>SET P22 1</b>  Response from device: <b>P22: 1</b>

## ID Identification data

<b>Description</b>	This command requests Identification data of terminal.
<b>Options</b>	Parameter is read only.
<b>Used values</b>	<b>DSM4</b> – Model of device <b>s/n</b> – Serial number of device <b>FW</b> – Firmware version <b>IMEI</b> – IMEI number of GSM module
<b>Default value</b>	
<b>Comments</b>	
<b>Example</b>	To read parameter: <b>GET ID</b>  Response from device: <b>DSM4, s/n: 02109, FW: v3.20, IMEI: 860719026345345</b>

## CELLPOS Position based on GSM cells

<b>Description</b>	This command requests position that is based on GSM cells.
<b>Options</b>	Parameter is read only.
<b>Comments</b>	
<b>Example</b>	To read parameter: <b>GET CELLPOS</b>  Response from device: <b>24.506144,56.851971,2015/02/22,14:20:48</b>

## GPS Actual GPS position

<b>Description</b>	This command requests actual GPS position
<b>Options</b>	Parameter is read only.
<b>Used values</b>	<p><b>Up time</b> – Duration of actual wake time</p> <p><b>Battery</b> – Internal battery level (voltage and percentage)</p> <p><b>Temperature</b> – Actual temperature (in Celsius degrees)</p> <p><b>GSM signal</b>– Strength of GSM signal (4-31)</p> <p><b>GPS fix</b> - Accuracy of GPS position (0, 1, 2 or 3D)</p> <p><b>LAT</b>– Longitude (in decimal degrees)</p> <p><b>LON</b> – Latitude (in decimal degrees)</p> <p><b>Speed</b> – Actual speed (km/h)</p>
<b>Example</b>	To read parameter: <b>GET STATUS</b>  Response from device (if P22 is 0): <b>Up time: 00:02:48</b> <b>Battery: 2,90V (98%)</b> <b>Temperature: 21C</b> <b>GSM signal: 31</b> <b>GPS fix: 3D</b> <b>Satellites: 7</b> <b><a href="http://www.google.com/maps/place/56.9772999,24.2450375">http://www.google.com/maps/place/56.9772999,24.2450375</a></b> <b>Speed: 0 km/h</b>  Response from device (if P22 is 1): <b>Up time: 00:02:48</b> <b>Battery: 2,90V (98%)</b> <b>Temperature: 21C</b> <b>GSM signal: 31</b> <b>GPS fix: 3D</b> <b>Satellites: 7</b> <b>LAT: 56.9735976</b> <b>LON: 24.2407805</b> <b>Speed: 0 km/h</b>

**STATUS      Actual status of device**

<b>Description</b>	This command requests contents of actual status data
<b>Options</b>	Parameter is read only.
<b>Used values</b>	<p><b>Up time</b> – Duration of actual wake time</p> <p><b>Battery</b> – Internal battery level (voltage and percentage)</p> <p><b>Temperature</b> – Actual temperature (in Celsius degrees)</p> <p><b>GSM signal</b>– Strength of GSM signal (4-31)</p> <p><b>GPS fix</b> - Accuracy of GPS position (0, 1, 2 or 3D)</p> <p><b>LAT</b>– Longitude (in decimal degrees)</p> <p><b>LON</b> – Latitude (in decimal degrees)</p> <p><b>Speed</b> – Actual speed (km/h)</p>
<b>Default value</b>	
<b>Example</b>	<p>To read parameter: <b>GET STATUS</b></p> <p>Response from device (If P15 is 0):  <b>Up time: 00:02:48</b>  <b>Battery: 2,90V (98%)</b>  <b>Temperature: 21C</b>  <b>GSM signal: 31</b></p> <p>Response from device (If P15 is 1 and P22 is 0):  <b>Up time: 00:02:48</b>  <b>Battery: 2,90V (98%)</b>  <b>Temperature: 21C</b>  <b>GSM signal: 31</b>  <b>GPS fix: 3D</b>  <b>Satellites: 7</b>  <a href="http://www.google.com/maps/place/56.9772999,24.2450375">http://www.google.com/maps/place/56.9772999,24.2450375</a>  <b>Speed: 0 km/h</b></p> <p>Response from device (If P15 is 1 and P22 is 1):  <b>Up time: 00:02:48</b>  <b>Battery: 2,90V (98%)</b>  <b>Temperature: 21C</b>  <b>GSM signal: 31</b>  <b>GPS fix: 3D</b>  <b>Satellites: 7</b>  <b>LAT: 56.9735976</b>  <b>LON: 24.2407805</b>  <b>Speed: 0 km/h</b></p>

## ALARM Set emergency mode

<b>Description</b>	Emergency working modes
<b>Options</b>	Parameter can be read and modified.
<b>Used values</b>	<b>0</b> - Emergency working mode disabled <b>1</b> – Emergency working mode enabled (2,4 GHz transmitter enabled) <b>2</b> - Emergency working mode enabled (2,4 GHz transmitter and GPS module enabled)
<b>Default value</b>	0
<b>Example</b>	To read parameter: <b>GET ALARM</b>  To set parameter: <b>SET ALARM 2</b>  Response from device: <b>Alarm mode: 2</b>

## FACTORY Restore factory settings

<b>Description</b>	Restore factory settings
<b>Options</b>	Parameter can be set only
<b>Used values</b>	
<b>Example</b>	To set parameter: <b>SET FACTORY</b>  Response from device: <b>Factory settings has been restored! Device rebooting!</b>

## RESET Reboot device

<b>Description</b>	Reboot device
<b>Options</b>	Parameter can be set only
<b>Used values</b>	
<b>Default value</b>	
<b>Example</b>	To set parameter: <b>SET RESET</b>

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