

Neo_M660&M680 GPRS Module eCall Function Description



This function applies to **M680/M660 GPRS communication modules and supports M680_1232_LQS13000_V015/M660_1230_LQS13000_V015 and later versions.**

1 eCall Function Introduction

eCall is an initiative with the purpose to bring rapid assistance to motorists involved in a collision anywhere in the European Union.

In case of a crash, an eCall-equipped car automatically calls the nearest emergency center. Even if no passenger is able to speak, e.g. due to injuries, a "Minimum Set of Data" is sent, which includes the exact location of the crash site. Shortly after the accident, emergency services therefore know that there has been an accident, and where exactly.

eCall cuts emergency services response time. It goes down to 50% in the countryside and 60% in build-up areas.

2 eCall Related Commands

2.1 Enable/Disable DSP Monitoring: %EMSD

Description	This command is used to enable/disable DSP to monitor eCall related signal.	
Format	AT%EMSD=<Monitor_DSP><CR>	
Parameters	<Monitor_DSP>: 0: DSP stops monitoring "eCall related signal" 1: DSP starts monitoring "eCall related signal"	
Return Value	See the following example.	
Example	AT%EMSD=1 OK	Enable DSP monitoring
	AT%EMSD=0 OK	Disable DSP monitoring
Remarks	Enable DSP monitoring before eCall is initiated. After eCall is terminated, disable DSP monitoring.	

2.2 MSD Configuration: %EMSDSET

Description	This command is used to configure MSD data (a minimum set of emergency related data).	
Format	AT%EMSDSET=<MSD_data><CR>	
Parameters	<MSD_data>: String Hex string, maximum length is 280 bytes	
Return Value	OK/ERROR	
Example	AT%EMSDSET="0D0D0D"	
	OK	
Example	AT%EMSD=0	
	OK	
Remarks	Refer to TS 26.267, maximum size of MSD is 140 bytes. This command is sent before eCall is initiated.	

2.3 Initiate an eCall: +CECALL

Description	This command is used to trigger an eCall to the network. Based on the configuration selected, it can be used to either trigger a test call, a reconfiguration call, a manually initiated eCall or an automatically initiated eCall.	
Format	AT+CECALL=<type_of_eCall><CR>	
Parameters	<type_of_eCall>: Integer 0: Test call 1: Reconfiguration call 2: Manually initiated eCall 3: Automatically initiated eCall	
Return Value	OK/ERROR	
Example	AT+CECALL=? +CECALL: (0,1,2,3) OK	
	AT+CECALL=2 OK SPEECH ON	
Remarks	For detailed information about eCall, please refer to TS 26.267.	

2.4 Trigger an MSD Transmission: %EMSDPUSH

Description	In-Vehicle System (IVS) can trigger the MSD transmission after eCall is established. In this case, the IVS asks the PSAP to request an MSD transmission.	
Format	AT%EMSDPUSH<CR>	
Parameters	N/A	
Return Value	See the following example.	
Example	AT%EMSDPUSH OK	N/A
	IVS, MSD and PSAP are defined in TS 26.267	
Remarks	N/A	

2.5 eCall Indications

Description	The indications about eCall	
Format	+EMSDPULL: PSAP starts obtaining pull data. +EMSDSYNC: SYNC frame detected starts sending MSD data. +EMSDLACK: link layer data is transferred successfully (only sent when transmission at lower layer succeeds) +EMSDHACK: High layer data ACK. The acknowledgement information will be sent to AP no matter MSD is transferred successfully or not (could be successful or fail). eCall session ending depends on AP if Call needs to be ended.	
Parameters	N/A	
Return Value	N/A	
Example	N/A	
	N/A	
Remarks	N/A	

2.6 eCall Commands Process

Description	The process of eCall commands	
Format	NULL	
Parameters	NULL	
Return Value	NULL	
Process	AT%EMSD=1 OK	Set DSP to monitor incoming data. (Limitation: no call exists. Customer shall release all calls first)
	AT%EMSDSET="0D0D0D... " OK	Set MSD data
	AT+CECALL=2 OK	Establish eCall (after call is connected, speech is on)
	AT%EMSDPUSH OK	Push mode, push data to PSAP (please make sure that MSD data is set before PUSH)
	ATH OK	Release calls
	AT%EMSD=0 OK	Switch Off DSP monitoring mode
Remarks	N/A	