AT command reference

(based on revision BIB 03.00.03.05)

Contents

Help commands

AT ??: List supported AT commands

Description:	**Lists all supported AT commands and result codes starting with <prefix>. Beside this, there is also the possibility to type "AT <command> ??" on the command line to get a detailed description of the <command>.**
References:	**None**
Group:	**Help commands**
Syntax:	**Extended format**

Command	Possible response(s)
AT ??=[<prefix>[,<mode>]]	
	<help text>
AT ??	<help text>
AT ???	n/a
AT ??=?	??: (list of supported <mode>s)

Defined values

<prefix>:	**string**
<mode>:	**decimal (0-3); Type of listing** **0 interactive (only headlines)**

1 short (only headlines)
2 long (complete information)
3 HTML (readable with an internet browser)

<help text>: alphanumeric

AT ?E: Show last error

Description: Shows the last error in extended form.
References: None
Group: Help commands
Syntax: Extended format

Command	Possible response(s)
AT ?E=...	n/a
AT ?E	<error text>
AT ?E?	n/a
AT ?E=?	

Defined values
<error text>: alphanumeric

ITU-T V.25ter: Generic DCE control commands

AT Z: Reset to default configuration

Description: Sets all DCE parameters to their defaults stored in a non-volatile profile. If the DTE is connected to the line, it is disconnected, terminating any call in progress. All following AT commands in the same line are ignored. See also AT &V and AT &W.
References: ITU-T V.25ter
Group: Generic DCE control commands
Syntax: Basic format

Command	Possible response(s)
AT Z[<profile>]	
	+CME ERROR: <err>

Defined values
<profile>: decimal (0-1); ID of a profile stored in non-volatile storage
0 (default)

AT &F: Set to factory-defined configuration

Description: Sets all DCE parameters to default values defined by the manufacturer.
References: ITU-T V.25ter

Group: Generic DCE control commands
Syntax: Basic format

Command	Possible response(s)
AT &F[<set>]	
	+CME ERROR: <err>

Defined values
<set>: decimal (0); ID of default values.

AT I: Request identification information

Description: Transmits one or more lines of information text, determined by the manufacturer.
References: ITU-T V.25ter
Group: Generic DCE control commands
Syntax: Basic format

Command	Possible response(s)
AT I[<elem>]	
	+CME ERROR: <err>

Defined values
<elem>: decimal (0-1); ID of an information element
0 (default)

AT +GMI: Request manufacturer identification

Description: Returns information to identify the TA manufacturer
References: ITU-T V.25ter
Group: Generic DCE control commands
Syntax: Extended format

Command	Possible response(s)
AT +GMI=...	n/a
AT +GMI	<manufacturer> +CME ERROR: <err>
AT +GMI?	n/a
AT +GMI=?	

Defined values
<manufacturer>: alphanumeric

AT +GMM: Request model identification

Description: Returns information to identify the TA model
References: ITU-T V.25ter
Group: Generic DCE control commands
Syntax: Extended format

Command	Possible response(s)
AT +GMM=...	n/a
AT +GMM	<model> +CME ERROR: <err>
AT +GMM?	n/a
AT +GMM=?	

Defined values
<model>: alphanumeric

AT +GMR: Request revision identification

Description: Returns information to identify the TA version, revision level or date.
References: ITU-T V.25ter
Group: Generic DCE control commands
Syntax: Extended format

Command	Possible response(s)
AT +GMR=...	n/a
AT +GMR	<revision> +CME ERROR: <err>
AT +GMR?	n/a
AT +GMR=?	

Defined values
<revision>: alphanumeric

AT +GSN: Request product serial number ident ification

Description: Returns information to identify the individual TA.
References: ITU-T V.25ter
Group: Generic DCE control commands
Syntax: Extended format

Command	Possible response(s)
AT +GSN=...	n/a

AT +GSN	**<sn> +CME ERROR: <err>**
AT +GSN?	**n/a**
AT +GSN=?	

Defined values

<sn>: **alphanumeric; serial number**

AT +GCAP: Request complete capabilities lis t

Description: **Transmits a list of additional capabilities command <name>s.**
References: **ITU-T V.25ter**
Group: **Generic DCE control commands**
Syntax: **Extended format**

Command	Possible response(s)
AT +GCAP=...	**n/a**
AT +GCAP	**+GCAP: list of additional capabilities command <name>s**
AT +GCAP?	**n/a**
AT +GCAP=?	

Defined values

<name>: **alphanumeric; Capabilities**
+FCLASS Facsimile DCE control
+CGSM GSM DCE control

ITU-T V.25ter: DTE-DCE interface commands

AT S: Set register

Description: **Sets a register which controls the operation of the DCE.**
References: **ITU-T V.25ter**
Group: **DTE-DCE interface commands**
Syntax: **Basic format**

Command	Possible response(s)
AT S<reg id>=<reg value> to set or S<reg id>? t o read the register	
	Read response: <reg value> (3 decimal digits) +CME ERROR: <err>

Defined values

<reg id>: **decimal (0,2-8,10-11,19); ID of a register**
<reg value>: **decimal (Depending on id)**

<S0 value>: decimal (0-255); Automatic answer
0 disabled (default)
1-255 Number of RINGs until automatic answer

<S2 value>: decimal (1-255); PPP character to abort online mode
43 + (default)

<S3 value>: decimal (0-127); Command line termination character
13 CR (default)

<S4 value>: decimal (0-127); Response formatting character
10 LF (default)

<S5 value>: decimal (0-127); Command line editing character
8 BS (default)

<S6 value>: decimal (2-10); Pause before blind dialling, in seconds
2 (default)

<S7 value>: decimal (1-255); Connection completion timeout, in seconds
60 (default)

<S8 value>: decimal (0-255); Comma dial modifier time, in seconds
2 (default)

<S10 value>: decimal (1-254); Automatic disconnect delay, in tenths of seconds
1 (default)

<S11 value>: decimal (50-255); Length of DTMF tone duration, in milliseconds
95 (default)

AT E: Command echo

Description: Sets whether or not the DCE echoes characters received from the DTE during command and online command state.
References: ITU-T V.25ter
Group: DTE-DCE interface commands
Syntax: Basic format

Command	Possible response(s)
AT E[<value>]	
	+CME ERROR: <err>

Defined values

<value>: decimal (0-1); Echo
0 off
1 on (default)

AT Q: Result code suppression

Description: Sets whether or not the DCE transmits result codes to the DTE.
References: ITU-T V.25ter
Group: DTE-DCE interface commands
Syntax: Basic format

Command	Possible response(s)
AT Q[<value>]	
	+CME ERROR: <err>

Defined values

<value>: decimal (0-1); Suppress result codes
- 0 off (default)
- 1 on

AT V: DCE response format

Description: Sets the contents of the header and trailer transmitted with result codes and information responses. It also determines whether result codes are transmitted in a numeric or an alphabetic ("verbose") form.
References: ITU-T V.25ter
Group: DTE-DCE interface commands
Syntax: Basic format

Command	Possible response(s)
AT V[<value>]	
	+CME ERROR: <err>

Defined values

<value>: decimal (0-1); Response format
- 0 numeric
- 1 alphabetic (default)

AT X: Result code selection and call progress moni toring ctrl.

Description: Sets whether or not the DCE transmits particular result codes to the DTE. It also controls whether or not the DCE verifies the presence of dial tone when it first goes off-hook to begin dialing, and whether or not engaged tone (busy signal) detection is enabled.See CONNECT, CONNECT <x>.
References: ITU-T V.25ter
Group: DTE-DCE interface commands
Syntax: Basic format

Command	Possible response(s)
AT X[<value>]	
	+CME ERROR: <err>

Defined values

<value>: decimal (0-4);
- 0 CONNECT, dial and busy disabled
- 1 CONNECT <text>, dial and busy disabled

2 CONNECT <text>, dial enabled, busy disabled
3 CONNECT <text>, dial disabled, busy enabled
4 CONNECT <text>, dial enabled and busy enabled
Attention: Selection of dial and busy tone detection has no effect.

AT &C: Circuit 109 (Received line signal de tector) behaviour

Description: Sets how the state of the DCD line relates to the detection of received line signal from distant end.
References: ITU-T V.25ter
Group: DTE-DCE interface commands
Syntax: Basic format

Command	Possible response(s)
AT &C[<value>]	
	+CME ERROR: <err>

Defined values
<value>: decimal (0-1); DCD presentation
0 always ON
1 in accordance with underlying DCE (default)

AT &D: Circuit 108 (Data terminal ready) be haviour

Description: Determines how the DCE responds when circuit 108/2 (DTR) is changed from the ON to the OFF condition during online data state.
References: ITU-T V.25ter
Group: DTE-DCE interface commands
Syntax: Basic format

Command	Possible response(s)
AT &D[<value>]	
	+CME ERROR: <err>

Defined values
<value>: decimal (0-2); DTR on-to-off transition
0 ignored
1 enters online command state and issues an OK result code, a call remains connected
2 instructs the DCE to perform an orderly tear down of a call (default)

AT +IPR: Fixed DTE rate

Description: Specifies the data rate at which the DCE will accept commands.
References: ITU-T V.25ter
Group: DTE-DCE interface commands

Syntax: **Extended format**

Command	Possible response(s)
AT +IPR=<rate>	
	+CME ERROR: <err>
AT +IPR	n/a
AT +IPR?	+IPR: <rate>
AT +IPR=?	+IPR: (list of supported <autodet>s), (list of supported <fixed-only>s)

Defined values

<rate>: decimal (0,300,1200,2400,4800,9600,19200); Bits per second
- 0 auto bauding

<autodet>: decimal (0,300,1200,2400,4800,9600,19200); Autodetectable rate values

<fixed-only>: decimal; () Fixed-only rate values

AT +IFC: DTE-DCE local flow control

Description: Controls the operation of local flow control between the DTE and DCE during the data state.

References: ITU-T V.25ter

Group: DTE-DCE interface commands

Syntax: Extended format

Command	Possible response(s)
AT +IFC=[<DCE_by_DTE>[,<DTE_by_DCE>]]	
	+CME ERROR: <err>
AT +IFC	n/a
AT +IFC?	+IFC: <DCE_by_DTE>,<DTE_by_DCE>
AT +IFC=?	+IFC: (list of supported <DCE_by_DTE>s), (list of supported <DTE_by_DCE>s)

Defined values

<DCE_by_DTE>: decimal (0-2); Flow control of data received from DCE
- 0 None
- 1 SW (XON/XOFF)
- 2 HW (RTS/CTS) (default)

<DTE_by_DCE>: decimal (0-2); Flow control of data transmitted to DCE
- 0 None
- 1 SW (XON/XOFF)
- 2 HW (RTS/CTS) (default)

ITU-T V.25ter: Call control commands

AT D: Dial

Description: Originates a call (or sends a supplementary service string to the network). All characters appearing on the same command line after the "D" are considered part of the call addressing information to be signalled to the network, or modifiers used to control the signalling process, up to a semicolon character or the end of the command line. It is also possible to dial a number from the phonebook.
AT D without an argument can be used to modify a call (Voice <-> FAX).

References: ITU-T V.25ter, ETSI GSM 07.07

Group: Call control commands

Syntax: Basic format

Command	Possible response(s)
AT D[(<dial string>|<pb dial>)[<clir>][<cug>][<semi>]]	
	CONNECT CONNECT <text> NO CARRIER BUSY NO ANSWER NO DIALTONE OK +CME ERROR: <err>

Defined values

<dial string>: := {<digit>|<modifier>};
Simple dialling

<pb dial>: := '>'(<alpha>|[<pb>]<index>);
Dialling from phonebook

<clir>: character (I,i); Override the CLIR supplementary service subscription default value for this call

- I invocation (restrict CLI presentation)
- i suppression (allow CLI presentation)

<cug>: character (G,g); Control the CUG supplementary service information for this call; uses index and info values set with command AT +CCUG

<semi>: character (;); When semicolon character is given after dialling digits (or modifiers), a voice call originated to the given address (ignoring AT +FCLASS). TA returns to command state immed iately.

<digit>: character (0-9,*,#,+,A-C,a-c); Dialling digits

<modifier>: character (D,,,T,P,t,p,!,W,@); Call modifiers (ignored)

<alpha>: string (0-tlength(pb)); Alpha-tag of a phonebook entry

<pb>: alphanumeric; Name of phonebook memory (w/o quotes) see AT +CPBS

<index>: decimal (1-total(pb)); Index in phonebook memory

AT T: Select tone dialing

Description: Causes subsequent D commands to assume that DTMF dialling is to be used unless otherwise specified. Command has no effect in GSM/SAT.

References: ITU-T V.25ter

Group: Call control commands

Syntax: Basic format

Command	Possible response(s)
AT T	

AT P: Select pulse dialing

Description:	**Causes subsequent D commands to assume that pulse dialling is to be used unless otherwise specified. Command has no effect in GSM/SAT.**
References:	**ITU-T V.25ter**
Group:	**Call control commands**
Syntax:	**Basic format**

Command	Possible response(s)
AT P	

AT A: Answer

Description:	**Instructs the DCE to immediately connect to the line and start the answer sequence as specified for the underlying DCE. Any additional commands that appear after A on the same command line are ignored.**
References:	**ITU-T V.25ter**
Group:	**Call control commands**
Syntax:	**Basic format**

Command	Possible response(s)
AT A	
	CONNECT **CONNECT <text>** **NO CARRIER** **OK** **+CME ERROR: <err>**

AT H: Hook control

Description:	**Instructs the DCE to disconnect from the line, terminating any call in progress.**
References:	**ITU-T V.25ter**
Group:	**Call control commands**
Syntax:	**Basic format**

Command	Possible response(s)
AT H[<value>]	

Defined values

<value>: **decimal (0);**
0 Disconnect and terminate call

AT O: Return to online data state

Description: **Causes the DCE to return to online data state and issues a result code.**
References: **ITU-T V.25ter**
Group: **Call control commands**
Syntax: **Basic format**

Command	Possible response(s)
AT O[<value>]	
	CONNECT **CONNECT <text>** **NO CARRIER** **+CME ERROR: <err>**

Defined values

<value>: **decimal (0);**
0 Return to online data state from online command

AT L: Monitor speaker loudness

Description: **Controls the volume of the monitor speaker. This command has no effect.**
References: **ITU-T V.25ter**
Group: **Call control commands**
Syntax: **Basic format**

Command	Possible response(s)
AT L[<value>]	
	+CME ERROR: <err>

Defined values

<value>: **decimal (0-3); Speaker volume**
0 low
1 low
2 medium
3 high

AT M: Monitor speaker mode

Description: **Controls when the monitor speaker is on. This command has no effect.**
References: **ITU-T V.25ter**
Group: **Call control commands**

Syntax: **Basic format**

Command	Possible response(s)
AT M[<value>]	
	+CME ERROR: <err>

Defined values

<value>: **decimal (0-2); Speaker is**

- **0 always off**
- **1 on until DCE informs DCE that carrier has been detected**
- **2 always on when DCE is off-hook**

ITU-T V.25ter: Mobility control commands

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ITU-T V.25ter: Error control commands

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ITU-T V.25ter: Data compression commands

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ETSI GSM 07.07: General commands

AT +CGMI: Request manufacturer identificati on

Description: **Returns information to identify the ME manufacturer.**
References: **ETSI GSM 07.07**
Group: **General commands**
Syntax: **Extended format**

Command	Possible response(s)
AT +CGMI=...	n/a
AT +CGMI	<manufacturer> +CME ERROR: <err>
AT +CGMI?	n/a
AT +CGMI=?	

Defined values

<manufacturer>: **alphanumeric**

AT +CGMM: Request model identification< /H3>

Description: Returns information to identify the ME model.
References: ETSI GSM 07.07
Group: General commands
Syntax: Extended format

Command	Possible response(s)
AT +CGMM=...	n/a
AT +CGMM	<model> +CME ERROR: <err>
AT +CGMM?	n/a
AT +CGMM=?	

Defined values
<model>: alphanumeric

AT +CGMR: Request revision identification

Description: Returns information to identify the ME version, revision level or date.
References: ETSI GSM 07.07
Group: General commands
Syntax: Extended format

Command	Possible response(s)
AT +CGMR=...	n/a
AT +CGMR	<revision> +CME ERROR: <err>
AT +CGMR?	n/a
AT +CGMR=?	

Defined values
<revision>: alphanumeric

AT +CGSN: Request product serial number ide ntification

Description: Returns information to identify the individual ME. Typically IMEI (International Mobile station Equipment Identity).
References: ETSI GSM 07.07
Group: General commands
Syntax: Extended format

Command	Possible response(s)

AT +CGSN=...	**n/a**
AT +CGSN	**<sn>** **+CME ERROR: <err>**
AT +CGSN?	**n/a**
AT +CGSN=?	

Defined values

<sn>: **alphanumeric**

AT +CSCS: Select TE character set

Description: **Informs the TA about the character set used by the TE. TA is then able to convert character strings correctly between TE and ME character sets.**

References: **ETSI GSM 07.07**

Group: **General commands**

Syntax: **Extended format**

Command	Possible response(s)
AT +CSCS=[<chset>]	
	+CME ERROR: <err>
AT +CSCS	**n/a**
AT +CSCS?	**+CSCS: <chset>**
AT +CSCS=?	**+CSCS: (list of supported <chset>s)**

Defined values

<chset>: **string ("IRA","GSM","PCCP437","8859-1")**

AT +WS46: Select wireless network

Description: **Display the active wireless network.**

References: **ETSI GSM 07.07**

Group: **General commands**

Syntax: **Extended format**

Command	Possible response(s)
AT +WS46=...	**n/a**
AT +WS46	**n/a**
AT +WS46?	**+WS46: <>**
AT +WS46=?	

ETSI GSM 07.07: Call control commands and methods

AT +CMOD: Call mode

Description: Select the call mode for further dialing commands (AT D) or for next answering command (AT A).
References: ETSI GSM 07.07
Group: Call control commands and methods
Syntax: Extended format

Command	Possible response(s)
AT +CMOD=[<mode>]	
	+CME ERROR: <err>
AT +CMOD	n/a
AT +CMOD?	+CMOD: <mode>
AT +CMOD=?	+CMOD: (list of supported <mode>s)

Defined values

<mode>: decimal (0-1);
- 0 single mode
- 1 alternating voice/fax (teleservice 61)
- 2 alternating voice/data (bearer service 61)
- 3 voice followed by data (bearer service 81)

AT +CHUP: Hangup call

Description: Causes the TA to hangup the current call of the ME.
References: ETSI GSM 07.07
Group: Call control commands and methods
Syntax: Extended format

Command	Possible response(s)
AT +CHUP=...	n/a
AT +CHUP	
AT +CHUP?	n/a
AT +CHUP=?	

AT +CBST: Select bearer service type

Description: Set command selects the bearer service <name> with data rate <speed>, and the connection element <ce> to be used when data calls are originated.
References: ETSI GSM 07.07
Group: Call control commands and methods
Syntax: Extended format

Command	Possible response(s)

AT +CBST=[<speed>[,<name>[,<ce>]]]	
	+CME ERROR: <err>
AT +CBST	n/a
AT +CBST?	+CBST: <speed>[,<name>,<ce>]
AT +CBST=?	+CBST: (list of supported <speed>s),(list of ;supported <name>s), (list of supported <ce>s)

Defined values

<speed>: decimal (4-7,68,70,71); Bits per second

- 4 2400 (V.22bis)
- 5 2400 (V.26ter)
- 6 4800 (V.32)
- 7 9600 (V.32)
- 68 2400 (V.110)
- 70 4800 (V.110)
- 71 9600 (V.110)

<name>: decimal (0);

- 0 asynchronous modem
- 1 synchronous modem
- 2 PAD Access (asynchronous)
- 3 Packet Access (synchronous)

<ce>: decimal (GSM: 0-1 SAT: 1); Connection element

- 0 transparent
- 1 non-transparent

AT +CRLP: Radio link protocol

Description: Radio link protocol parameters may be altered with set command.
References: ETSI GSM 07.07
Group: Call control commands and methods
Syntax: Extended format

Command	Possible response(s)
AT +CRLP=[<iws>[,<mws>[,<T1>[,<N2>]]]]	
	+CME ERROR: <err>
AT +CRLP	n/a
AT +CRLP?	+CRLP: <iws>,<mws>,<T1>,<N2>
AT +CRLP=?	+CRLP: (list of supported <iws>s),(list of s upported <mws>s), (list of supported <T1>s),(list of&nbs p;supported <N2>s)

Defined values

<iws>:	**decimal (GSM: 0-61 SAT: 0-n); IWF to MS window size**
<mws>:	**decimal (GSM: 0-61 SAT: 0-n); MS to IWF window size**
<T1>:	**decimal (39-255); Acknowledgment timer**
<N2>:	**decimal (1-255); Retransmission attempts**

AT +CR: Service reporting control

Description:	**Controls reporting of intermediate result code +CR.**
References:	**ETSI GSM 07.07**
Group:	**Call control commands and methods**
Syntax:	**Extended format**

Command	Possible response(s)
AT +CR=[<mode>]	
	+CME ERROR: <err>
AT +CR	**n/a**
AT +CR?	**+CR: <mode>**
AT +CR=?	**+CR: (list of supported <mode>s)**

Defined values

<mode>:	**decimal (0-1);**
	0 disabled (default)
	1 enabled

AT +CRC: Cellular result codes

Description:	**Controls reporting of unsolicited result code +CRING instead of the normal RING.**
References:	**ETSI GSM 07.07**
Group:	**Call control commands and methods**
Syntax:	**Extended format**

Command	Possible response(s)
AT +CRC=[<mode>]	
	+CME ERROR: <err>
AT +CRC	**n/a**
AT +CRC?	**+CRC: <mode>**
AT +CRC=?	**+CRC: (list of supported <mode>s)**

Defined values

<mode>:	**decimal (0-1); Extended reporting**
	0 disabled
	1 enabled

ETSI GSM 07.07: Network service related commands

AT +CNUM: Subscriber number

Description: Returns MSISDNs related to the subscriber (stored in SIM or ME).
References: ETSI GSM 07.07
Group: Network service related commands
Syntax: Extended format

Command	Possible response(s)
AT +CNUM=...	n/a
AT +CNUM	+CNUM: [<alpha>],<number>,<type>[,<speed>,<servi ce>[,<itc>]] [<CR><LF> +CNUM: [<alpha>],<number>,<type>[,<spe ed>,<service>[,<itc>]] [...]] +CME ERROR: <err>
AT +CNUM?	n/a
AT +CNUM=?	

Defined values

<alpha>: string
<number>: string
<type>: decimal (0-255)
<speed>: decimal (0-81)
<service>: decimal (0-5)
<itc>: decimal (0-1)

AT +CREG: Network registration

Description: Controls reporting of unsolicited result code +CREG.
References: ETSI GSM 07.07
Group: Network service related commands
Syntax: Extended format

Command	Possible response(s)
AT +CREG=[<mode>]	
	+CME ERROR: <err>
AT +CREG	n/a
AT +CREG?	+CREG: <mode>,<stat>[,<lac>,<ci>] +CME ERROR: <err>
AT +CREG=?	+CREG: (list of supported <mode>s)

Defined values

<mode>: decimal (0-1); report
0 off
1 registration only

2 registration and location information

<stat>: **decimal (0-5);**
- **0 not registered**
- **1 registered (home)**
- **2 not registered (searching)**
- **3 registration denied**
- **4 unknown**
- **5 registered (roaming)**

<lac>: **string (4); location area code**

<ci>: **string (4); cell ID**

AT +COPS: Operator selection

Description: **Forces an attempt to select and register with the network operator. <mode> is used to select whether the selection is done automatically by the ME or is forced by this command to operator <oper> (it shall be given in <format>).**

References: **ETSI GSM 07.07**

Group: **Network service related commands**

Syntax: **Extended format**

Command	Possible response(s)
AT +COPS=[<mode>[,<format>[,<oper>]]]	
	+CME ERROR: <err>
AT +COPS	**n/a**
AT +COPS?	**+COPS: <mode>[,<format>,<oper>]** **+CME ERROR: <err>**
AT +COPS=?	**+COPS: [list of supported (<stat>,** **<oper long>,<oper short>,<oper num >)s]** **[,,(list of supported <mode>s),(list o f supported <format>s)]** **+CME ERROR: <err>**

Defined values

<mode>: **decimal (0-4);**
- **0 automatic**
- **1 manual**
- **2 deregister**
- **3 set only format**
- **4 manual automatic**

<format>: **decimal (0-2);**
- **0 long alphanumeric**
- **1 short alphanumeric**
- **2 numeric**

<oper long>: **string**

<oper short>: **string**

<oper num>: **string**

<stat>: **decimal (0-3);**
- **0 unknown**
- **1 available**
- **2 current**
- **3 forbidden**

<oper>: **:= (<oper long>|<oper short>|<oper num>); // operator depending on <format>**

AT +CLCK: Facility lock

Description: **Used to lock, unlock or interrogate a ME or a network facility <fac>. Password is normally needed to do such actions.**

References: **ETSI GSM 07.07**

Group: **Network service related commands**

Syntax: **Extended format**

Command	Possible response(s)
AT +CLCK=<fac>,<mode>[,<password>[,<class>]]	
	+CME ERROR: <err> **when <mode>=2 and command successful:** **+CLCK: <status>[,<class>[<CR><LF>+CLCK: <st atus>,<class>[...]]**
AT +CLCK	**n/a**
AT +CLCK?	**n/a**
AT +CLCK=?	**+CLCK: (list of supported <fac>s)** **+CME ERROR: <err>**

Defined values

<fac>: **string;**
- **"GETS" Repair mode**

<mode>: **decimal (0-2);**
- **0 unlock**
- **1 lock**
- **2 query status**

<password>: **string**

<class>: **decimal (1-7); Sum of**
- **1 voice**
- **2 data**
- **4 fax**

(default is 7)

<status>: **decimal (0-1);**
- **0 not active**
- **1 active**

AT +CLIP: Calling line identification prese ntation

Description: **Controls reporting of unsolicited result code +CLIP when receiving a mobile terminated call.**

References: ETSI GSM 07.07
Group: Network service related commands
Syntax: Extended format

Command	Possible response(s)
AT +CLIP=[<mode>]	
	+CME ERROR: <err>
AT +CLIP	n/a
AT +CLIP?	+CLIP: <mode>,<status>
AT +CLIP=?	+CLIP: (list of supported <mode>s)

Defined values

<mode>: decimal (0-1); Reporting 0: disabled, 1: enabled

<status>: decimal (0-2); Subscriber CLIP service status in network

- 0 not provisioned
- 1 provisioned
- 2 unknown

ETSI GSM 07.07: Mobile Equipment control and status comm ands

AT +CPAS: Phone activity status

Description: Used to interogate the ME before requesting action from the phone.
References: ETSI GSM 07.07
Group: Mobile Equipment control and status commands
Syntax: Extended format

Command	Possible response(s)
AT +CPAS=...	n/a
AT +CPAS	+CPAS: <pas> +CME ERROR: <err>
AT +CPAS?	n/a
AT +CPAS=?	+CPAS: (list of supported <pas>s) +CME ERROR: <err>

Defined values

<pas>: decimal (0-5);

- 0 ready (ME allows commands from TA/TE)
- 1 unavailable (ME does not allow commands from TA/TE)
- 2 unknown
- 3 ringing (ready, but the ringer is active
- 4 call in progress (ready, but a call is active)
- 5 asleep (ME is unable to process commands from TA/TE because it is in low functionality state)

AT +CFUN: Set phone functionality

Description: Selects the level of functionality in the ME.
References: ETSI GSM 07.07
Group: Mobile Equipment control and status commands
Syntax: Extended format

Command	Possible response(s)
AT +CFUN=[<level>[,<reset>]]	
	+CME ERROR: <err>
AT +CFUN	n/a
AT +CFUN?	+CFUN: <level> +CME ERROR: <err>
AT +CFUN=?	+CFUN: (list of supported <level>s),(list of ;supported <reset>s) +CME ERROR: <err>

Defined values

<level>: decimal (0-1);
- 0 minimum functionality
- 1 full functionality

<reset>: decimal (0-1); Reset the ME before setting it to <level>
- 0 no
- 1 yes

AT +CPIN: Enter PIN

Description: Sends to the ME a password which is necessary before it can be operated. If the PIN required is a PUK, a new PIN must also be given.
References: ETSI GSM 07.07
Group: Mobile Equipment control and status commands
Syntax: Extended format

Command	Possible response(s)
AT +CPIN=<pin>[,<newpin>]	
	+CME ERROR: <err>
AT +CPIN	n/a
AT +CPIN?	+CPIN: <code> +CME ERROR: <err>
AT +CPIN=?	

Defined values

<pin>: string
<newpin>: string
<code>: alphanumeric

AT +CBC: Battery charge

Description: Returns battery connection status <bcs> and battery charge level <bcl> of the ME.
References: ETSI GSM 07.07
Group: Mobile Equipment control and status commands
Syntax: Extended format

Command	Possible response(s)
AT +CBC=...	n/a
AT +CBC	+CBC: <bcs>,<bcl> +CME ERROR: <err>
AT +CBC?	n/a
AT +CBC=?	+CBC: (list of supported <bcs>s),(list of su pported <bcl>s)

Defined values

<bcs>: decimal (0-3);
- 0 ME is powered by the battery
- 1 ME has a battery connected, but is not powered by it
- 2 ME does not have a battery connected
- 3 Recognized power fault, calls inhibited

<bcl>: decimal (0-100);
- 0 battery exhausted or not connected
- 1-100 percent of capacity remaining

AT +CSQ: Signal quality

Description: Returns received signal strength indication <rssi> and channel bit error rate <ber> from the ME.
References: ETSI GSM 07.07
Group: Mobile Equipment control and status commands
Syntax: Extended format

Command	Possible response(s)
AT +CSQ=...	n/a
AT +CSQ	+CSQ: <rssi>,<ber> +CME ERROR: <err>
AT +CSQ?	n/a
AT +CSQ=?	+CSQ: (list of supported <rssi>s),(list of s upported <ber>s)

Defined values

<rssi>: decimal (0-31,99); Received signal strength indication
- 0 -113 dBm or less
- 1 -111 dBm
- 2-30 -109 ... -53 dBm
- 31 -51 dBm or greater
- 99 not known or not detectable

<ber>: decimal (0-7,99); Bit error rate

- 0 [0% 0.2%[
- 1 [0.2% 0.4%[
- 2 [0.4% 0.8%[
- 3 [0.8% 1.6%[
- 4 [1.6% 3.2%[
- 5 [3.2% 6.4%[
- 6 [6.4% 12.8%[
- 7 [12.8% 100%]
- 99 not known or not detectable

AT +CPBS: Select phonebook memory storage

Description: Selects phonebook memory storage <storage>, which is used by other phonebook commands.
References: ETSI GSM 07.07
Group: Mobile Equipment control and status commands
Syntax: Extended format

Command	Possible response(s)
AT +CPBS=<storage>	
	+CME ERROR: <err>
AT +CPBS	n/a
AT +CPBS?	+CPBS: <storage>[,<used>,<total>] +CME ERROR: <err>
AT +CPBS=?	+CPBS: (list of supported <storage>s)

Defined values

<storage>: string constant ("SM","LD","FD");

- "SM" SIM phonebook
- "LD" SIM last-dialling phonebook
- "FD" fixdialling-phonebook

<used>: decimal (used(pb)); Number of used locations in selected memory
<total>: decimal (total(pb)); Total number of locations in selected memory

AT +CPBR: Read phonebook entries

Description: Returns phonebook entries in location number range <index1>...<index2> from the current phonebook memory storage selected with AT +CPBS.
References: ETSI GSM 07.07
Group: Mobile Equipment control and status commands
Syntax: Extended format

Command	Possible response(s)
AT +CPBR=<index1>[,<index2>]	

	+CPBR: <index1>,<number>,<type>,<alpha>[[...] <CR><LF>+CPBR: <index2>,<number>,&l t;type>,<alpha>] +CME ERROR: <err>
AT +CPBR	n/a
AT +CPBR?	n/a
AT +CPBR=?	+CPBR: (list of supported <index>s),<nlength>,&l t;tlength> +CME ERROR: <err>

Defined values

<index1>:	decimal (1-total(pb)); start index
<index2>:	decimal (1-total(pb)); end index
<number>:	string (0-nlength(pb)); phone number
<type>:	decimal (0-255); type of phone number
<alpha>:	string (0-tlength(pb)); alpha-tag assigned to phone number
<index>:	decimal (1-total(pb)); index in phonebook
<nlength>:	decimal (nlength(pb)); maximum length of field <number>
<tlength>:	decimal (tlength(pb)); maximum length of field <alpha>

AT +CPBW: Write/Delete phonebook entry< /H3>

Description: Writes phonebook entry in location number <index> in the current phonebook memory storage selected with **AT +CPBS**. If only <index> is given, the en try is deleted. If <index> is left out, entry is written to the first free location.

References: ETSI GSM 07.07

Group: Mobile Equipment control and status commands

Syntax: Extended format

Command	Possible response(s)
AT +CPBW=[<index>][,<number>[,<type>[,<alpha>]]]	
	+CME ERROR: <err>
AT +CPBW	n/a
AT +CPBW?	n/a
AT +CPBW=?	+CPBW: (list of supported <index>s),<nlength>, (list of supported <type>s),<tlength> +CME ERROR: <err>

Defined values

<index>:	decimal (1-total(pb)); index in phonebook
<number>:	string (0-nlength(pb)); phone number
<type>:	decimal (129,145); type of phone number
<alpha>:	string (0-tlength(pb)); alpha-tag assigned to phone number
<nlength>:	decimal (nlength(pb)); maximum length of field <number>

<tlength>: decimal (tlength(pb)); maximum length of field <alpha>

AT +CCLK: Clock

Description: Sets/reads the real-time clock of the ME.
References: ETSI GSM 07.07
Group: Mobile Equipment control and status commands
Syntax: Extended format

Command	Possible response(s)
AT +CCLK=<time>	
	+CME ERROR: <err>
AT +CCLK	n/a
AT +CCLK?	+CCLK: <time> +CME ERROR: <err>
AT +CCLK=?	

Defined values

<time>: string (20); format is "yy/MM/dd,hh:mm:ssSzz"

AT +CRSM: Restricted SIM access

Description: Transmits to the ME the SIM <command> and its required parameters. ME handles internally all SIM-ME interface locking and file selection routines. As response to the command, ME sends the actual SIM information parameters and response data. Failure in the execution of the command in the SIM is reported in <sw1> and <sw2> parameters. See also GSM 11.11.
References: ETSI GSM 07.07
Group: Mobile Equipment control and status commands
Syntax: Extended format

Command	Possible response(s)
AT +CRSM=<command>[,<fileid>[,<P1>,<P2>,<P3>[,< data>]]]	
	+CRSM: <sw1>,<sw2>[,<response>] +CME ERROR: <err>
AT +CRSM	n/a
AT +CRSM?	n/a
AT +CRSM=?	

Defined values

<command>: decimal (176,178);
176 READ BINARY
178 READ RECORD

<fileid>: decimal (28423,28471,28473,28481); Identifier of an elementary datafile on SIM
- 28423 IMSI
- 28471 ACMM
- 28473 ACM
- 28481 PUCT

<P1>: decimal (0-255); Parameter passed on to the SIM
<P2>: decimal (0-255); See <P1>
<P3>: decimal (0-255); See <P1>
<data>: alphanumeric; Not supported
<sw1>: decimal; Information from the SIM about the execution of the actual command.
<sw2>: decimal; See <sw1>
<response>: alphanumeric; Response data

AT +CLAC: List all available AT commands

Description: Returns one or more lines of AT Commands that are available for the user.
References: ETSI GSM 07.07
Group: Mobile Equipment control and status commands
Syntax: Extended format

Command	Possible response(s)
AT +CLAC=...	n/a
AT +CLAC	<AT Command1>[<CR><LF><AT Command2>[...]] +CME ERROR: <err>
AT +CLAC?	n/a
AT +CLAC=?	+CME ERROR: <err>

Defined values
<AT Command1>: alphanumeric
<AT Command2>: alphanumeric

ETSI GSM 07.07: Mobile Equipment errors

AT +CMEE: Report Mobile Equipment error

Description: Defines the reporting of ME errors. See ERROR, +CME, +CMS.
References: ETSI GSM 07.07
Group: Mobile Equipment errors
Syntax: Extended format

Command	Possible response(s)
AT +CMEE=[<level>]	
	+CME ERROR: <err>
AT +CMEE	n/a

AT +CMEE?	**+CMEE: <level>**
AT +CMEE=?	**+CMEE: (list of supported <level>s)**

Defined values

<level>: **decimal (0-2); +CME ERROR <err> result code**
- **0 disabled - instead ERROR is used**
- **1 enabled - numeric <err> values**
- **2 enabled - verbose <err> values**

ETSI GSM 07.05: General Configuration Commands

AT +CSMS: Select Message Service

Description: **Selects <service> and returns types of messages supported by the ME: <mt> for mobile terminated messages, <mo> for mobile originated massages and <bm> for broadcast type messages.**
References: **ETSI GSM 07.05**
Group: **General Configuration Commands**
Syntax: **Extended format**

Command	Possible response(s)
AT +CSMS=[<service>]	
	+CSMS: <mt>,<mo>,<bm> **+CMS ERROR: <err>**
AT +CSMS	**n/a**
AT +CSMS?	**+CSMS: <service>,<mt>,<mo>,<bm>**
AT +CSMS=?	**+CSMS: (list of supported <service>s)**

Defined values

<service>: **decimal (0);**
- **0 GSM 07.05 Phase 2**

<mt>: **decimal (0-1);**
- **1 supported**

<mo>: **decimal (0-1);**
- **1 supported**

<bm>: **decimal (0-1);**
- **1 supported**

AT +CPMS: Preferred Message Storage

Description: **Selects memory storages <mem1>, <mem2> and <mem3> to be used f or reading, writing, etc.**
References: **ETSI GSM 07.05**
Group: **General Configuration Commands**
Syntax: **Extended format**

Command	Possible response(s)
AT +CPMS=<mem1>[,<mem2>,[<mem3>]]	
	+CPMS: <used1>,<total1>,<used2>,<total2>,<used3& gt;,<total3> +CMS ERROR: <err>
AT +CPMS	n/a
AT +CPMS?	+CPMS: <mem1>,<used1>,<total1>, <mem2>,<used2>,<total2>, <mem3>,<used3>,<total3> +CMS ERROR: <err>
AT +CPMS=?	+CPMS: (list of supported <mem1>s),(list of supported <mem2>s), (list of supported <mem3>s)

Defined values

<mem1>:	string constant ("SM","BM"); Memory from which messages are read and deleted (AT +CMGL, AT +CMGR, AT +CMGD) "SM" SIM message storage "BM" broadcast message storage "SR" status report storage
<mem2>:	string constant ("SM"); Memory to which writing and sending operations are made (AT +CMSS, AT +CMGW).
<mem3>:	string constant ("BM"); Memory to which received SMs are preferred to be stored. Received CBMs are always stored in "BM". Received status reports are always stored in "SR".
<used1>:	decimal; Number of messages currently in <mem1>
<total1>:	decimal; Total number of message locations in <mem1>
<used2>:	decimal; Number of messages currently in <mem2>
<total2>:	decimal; Total number of message locations in <mem2>
<used3>:	decimal; Number of messages currently in <mem3>
<total3>:	decimal; Total number of message locations in <mem3>

AT +CMGF: Message Format

Description:	Command tells the TA, which input and output format of message to use. <mode> can be either PDU or text mode.
References:	ETSI GSM 07.05
Group:	General Configuration Commands
Syntax:	Extended format

Command	Possible response(s)
AT +CMGF=[<mode>]	
	+CMS ERROR: <err>
AT +CMGF	n/a
AT +CMGF?	+CMGF: <mode>
AT +CMGF=?	+CMGF: (list of supported <mode>s)

Defined values

<mode>: **decimal (0-1);**
0 PDU (default)
1 text

ETSI GSM 07.05: Message Configuration Commands

AT +CSCA: Service Centre Address

Description: **Updates SMSC address, through which mobile originated SMs are transmitted. Setting is used by AT +CMGS and AT +CMGW.**
References: **ETSI GSM 07.05**
Group: **Message Configuration Commands**
Syntax: **Extended format**

Command	Possible response(s)
AT +CSCA=<sca number>[,<sca type>]	
	+CMS ERROR: <err>
AT +CSCA	n/a
AT +CSCA?	+CSCA: <sca number>,<sca type>
AT +CSCA=?	

Defined values

<sca number>: **string**
<sca type>: **decimal (0-255)**

AT +CSMP: Set Text Mode Parameters

Description: **Select values for additional parameters needed when SM is sent to the network or placed in a storage when text format message mode is selected. The format of <vp> is given by <fo>.**
References: **ETSI GSM 07.05**
Group: **Message Configuration Commands**
Syntax: **Extended format**

Command	Possible response(s)
AT +CSMP=[<fo>[,(<vp int>|<vp str>)[,<pid>[,&l t;dcs>]]]]	
	+CMS ERROR: <err>
AT +CSMP	n/a
AT +CSMP?	+CSMP: <fo>,(<vp int>|<vp str>),<pid>,< ;dcs>
AT +CSMP=?	

Defined values

<fo>: **decimal (0-255); first octet of SMS**

<vp int>: decimal (0-255); Relative TP-Validity-Period
<vp str>: string (20); Absolute TPVP "yy/MM/dd,hh:mm:ssSzz"
<pid>: decimal (0-255); TP-Protocol-Identifier
<dcs>: decimal (0-255); Data Coding Scheme

AT +CSDH: Show Text Mode Parameters

Description: Controls whether detailed header information is shown in text mode result codes (AT +CMT, AT +CMGL, AT +CMGR).
References: ETSI GSM 07.05
Group: Message Configuration Commands
Syntax: Extended format

Command	Possible response(s)
AT +CSDH=[<show>]	
	+CMS ERROR: <err>
AT +CSDH	n/a
AT +CSDH?	+CSDH: <show>
AT +CSDH=?	+CSDH: (list of supported <show>s)

Defined values
<show>: decimal (0-1);
0 hide values
1 show values

AT +CSCB: Select Cell Broadcast Message Typ es

Description: Selects which types of CBMs are to be received by the ME. The set of messages is defined by <mids> and <dcss>.
References: ETSI GSM 07.05
Group: Message Configuration Commands
Syntax: Extended format

Command	Possible response(s)
AT +CSCB=[<mode>[,<mids>[,<dcss>]]]	
	+CMS ERROR: <err>
AT +CSCB	n/a
AT +CSCB?	+CSCB: <mode>,<mids>,<dcss>
AT +CSCB=?	+CSCB: (list of supported <mode>s)

Defined values
<mode>: decimal (0-1); accept messages
0 in set
1 not in set

<mids>: **string; list of CBM identifiers**
<dcss>: **string; list of CBM data coding schemes**

AT +CSAS: Save Settings

Description: **Saves active message service settings (AT +CSCA, AT +CSMP, AT +CSCB) to a non-volatile memory. A TA can con tain several <profile>s.**
References: **ETSI GSM 07.05**
Group: **Message Configuration Commands**
Syntax: **Extended format**

Command	Possible response(s)
AT +CSAS=[<profile>]	
	+CMS ERROR: <err>
AT +CSAS	+CMS ERROR: <err>
AT +CSAS?	n/a
AT +CSAS=?	+CSAS: (list of supported <profile>s)

Defined values
<profile>: **decimal (0-1); profile index**

AT +CRES: Restore Settings

Description: **Restores message service settings (AT +CSCA, AT +CSMP, AT +CSCB) from a non-volatile memory. A TA can c ontain several <profile>s.**
References: **ETSI GSM 07.05**
Group: **Message Configuration Commands**
Syntax: **Extended format**

Command	Possible response(s)
AT +CRES=[<profile>]	
	+CMS ERROR: <err>
AT +CRES	+CMS ERROR: <err>
AT +CRES?	n/a
AT +CRES=?	+CRES: (list of supported <profile>s)

Defined values
<profile>: **decimal (0-1); profile index**

ETSI GSM 07.05: Message Receiving and Reading Commands

AT +CNMI: New Message Indications to TE

Description: Selects the procedure, how receiving of new messages from the network is indicated to the TE when TE is active.
References: ETSI GSM 07.05
Group: Message Receiving and Reading Commands
Syntax: Extended format

Command	Possible response(s)
AT +CNMI=[<mode>[,<mt>[,<bm>[,<ds>[,<bfr>]]]]]	
	+CMS ERROR: <err>
AT +CNMI	n/a
AT +CNMI?	+CNMI: <mode>,<mt>,<bm>,<ds>,<bfr>
AT +CNMI=?	+CNMI: (list of supported <mode>s),(list of supported <mt>s), (list of supported <bm>s),(list of&nbs p;supported <ds>s), (list of supported <bfr>s)

Defined values

<mode>: decimal (1);
1 Discard indication and reject new received message unsolicited result codewhen TA-TE link is reserved. Otherwise forward them directly to TE

<mt>: decimal (0-1); SMS-DELIVERs

<bm>: decimal (0); CBMs

<ds>: decimal (0); SMS-STATUS-REPORTs

<bfr>: decimal (0); When <mode> 1..3 is entered, TA buffer of unsolicited result code defined within this command is
0 flushed to the TE
1 cleared

AT +CMGL: List Messages

Description: Returns messages with status value <stat> from message storage <mem1> to the TE. In PDU mode <stat> is an integer else a string. If status of the message is 'unread', status in storage changes to 'read'. AT +CSDH controls the returned parameters in tex t mode.
References: ETSI GSM 07.05
Group: Message Receiving and Reading Commands
Syntax: Extended format

Command	Possible response(s)
AT +CMGL=(<stat int>|<stat str>)	
	if text mode and command successful: 1) SMS-SUBMITs and/or SMS-DELIVERs: +CMGL: <index>,<stat str>,<oa/da>,[& lt;alpha>],[<scts>] [,<tooa/toda>,<length>]<CR><LF><data& gt;[<CR><LF> +CMGL: <index>,<stat str>,<oa/da>,[& lt;alpha>],[<scts>] [,<tooa/toda>,<length>]<CR><LF><data& gt;[...]] 2) SMS-STATUS-REPORTs: +CMGL: <index>,<stat str>,<fo>,<m r>,[<ra>],[<tora>],<scts>, <dt>,<st>[<CR><LF> +CMGL: <index>,<stat str>,<fo>,<m r>,[<ra>],[<tora>],<scts>,

	<dt>,<st>[...]] **3) SMS-COMMANDs:** **+CMGL: <index>,<stat str>,<fo>,<c t><CR><LF>** **+CMGL: <index>,<stat str>,<fo>,<c t>[...]]** **4) CBM storage:** **+CMGL: <index>,<stat str>,<sn>,<m id>,<page>,<pages><CR><LF>** **<data>[<CR><LF>** **+CMGL: <index>,<stat str>,<sn>,<m id>,<page>,<pages><CR><LF>** **<data>[...]]** **if PDU mode and command successful:** **+CMGL: <index>,<stat int>,[<alpha>], <length><CR><LF><pdu>** **[<CR><LF>+CMGL: <index>,<stat int >,[<alpha>],<length>** **<CR><LF><pdu>[...]]** **otherwise:** **+CMS ERROR: <err>**
AT +CMGL	**like +CMGL=4 or "ALL"**
AT +CMGL?	**n/a**
AT +CMGL=?	**PDU: +CMGL: (list of supported <stat int>s)** **Text: +CMGL: (list of supported <stat str>s)**

Defined values

<stat int>:	**decimal (0-4); used in PDU mode** **0 unread** **1 read** **2 unsent** **3 send** **4 all**
<stat str>:	**string; used in text mode** **"REC UNREAD"** **"REC READ"** **"STO UNSENT"** **"STO SEND"** **"ALL"**
<index>:	**decimal (1-total(mem1)); Index to <mem1> (see AT +CPMS)**
<oa/da>:	**string**
<alpha>:	**string**
<scts>:	**string**
<tooa/toda>:	**decimal (0-255)**
<length>:	**decimal (0-255)**
<data>:	**alphanumeric**
<pdu>:	**alphanumeric**
<fo>:	**decimal (0-255); first octet of SMS**
<mr>:	**decimal (n); TP-Message-Reference**
<ra>:	**string; TP-Recipient-Address**
<tora>:	**decimal (0-255)**
<dt>:	**string (20); TP-Discharge-Time**
<st>:	**decimal (n); TP-Status**
<ct>:	**decimal (n); TP-Command-Type**
<sn>:	**decimal (n); CBM Serial Number**
<mid>:	**decimal (n); CBM Message Identifier**

<page>: decimal (0-15); CBM Page Parameter (bits 4-7)
<pages>: decimal (0-15); CBM Page Parameter (bits 4-7)

AT +CMGR: Read Message

Description: Returns message with location value <index> from message storage <mem1> to the TE. AT +CSDH controls the amount of returned values. If status of the message is 'received unread', status in the storage changes to 'received read'.
References: ETSI GSM 07.05
Group: Message Receiving and Reading Commands
Syntax: Extended format

Command	Possible response(s)
AT +CMGR=<index>	

	if text mode and command successful:
	1) SMS-DELIVER:
	+CMGR: <stat str>,<oa>,[<alpha>],< ;scts>
	[,<tooa>,<fo>,<pid>,<dcs>,<sca>,&l t;tosca>,<length>] // AT +CSDH
	<CR><LF><data>
	2) SMS-SUBMIT:
	+CMGR: <stat str>,<da>,[<alpha>]
	[,<toda>,<fo>,<pid>,<dcs>,[<vp>], // AT +CSDH
	<sca>,<tosca>,<length>] // AT +CSDH
	<CR><LF><data>
	3) SMS-STATUS-REPORT:
	+CMGR: <stat str>,<fo>,<mr>,[<ra& gt;],[<tora>],<scts>,<dt>,<st>
	4) SMS-COMMAND:
	+CMGR: <stat str>,<fo>,<ct>
	[,<pid>,[<mn>],[<da>],[<toda>], // AT +CSDH
	<length><CR><LF><cdata>] // AT +CSDH
	5) CBM storage:
	+CMGR: <stat str>,<sn>,<mid>,<dcs >,<page>,<pages>
	<CR><LF><data>
	if PDU mode and command successful:
	+CMGR: <stat int>,[<alpha>],<length> <CR><LF><pdu>
	otherwise:
	+CMS ERROR: <err>

AT +CMGR	n/a
AT +CMGR?	n/a
AT +CMGR=?	

Defined values

<index>: decimal (1-total(mem1)); Index to <mem1> (see AT +CPMS)
<stat str>: string;
"REC UNREAD"
"REC READ"
"STO UNSENT"
"STO SEND"
<oa>: string; TP-Originating-Address
<tooa>: decimal (0-255); type of <oa>
<alpha>: string; alpha-tag in phonebook

<scts>:	**string; TP-Service-Centre-Time-Stamp**
<fo>:	**decimal (0-255); first octet of SMS**
<pid>:	**decimal (0-255); TP-Protocol-Identifier**
<dcs>:	**decimal (0-255); SM or CBM Data Coding Scheme**
<sca>:	**string; RP service center address**
<tosca>:	**decimal; type of <sca>**
<length>:	**decimal (0-255); length of <data> or <cdata>**
<data>:	**alphanumeric; TP-User-Data**
<da>:	**string; TP-Destination-Address**
<toda>:	**decimal; type of <da>**
<vp>:	**:= (<vp str>|<vp int>); // TPVP depending on <fo>**
<vp str>:	**string (20); Absolute TPVP "yy/MM/dd,hh:mm:ssSzz"**
<vp int>:	**decimal (0-255); Relative TP-Validity-Period**
<mr>:	**decimal (n); TP-Message-Reference**
<ra>:	**string; TP-Recipient-Address**
<tora>:	**decimal (0-255); type of <ra>**
<dt>:	**string (20); TP-Discharge-Time**
<st>:	**decimal (n); TP-Status**
<ct>:	**decimal (n); TP-Command-Type**
<mn>:	**decimal; TP-Message-Number**
<cdata>:	**alphanumeric; TP-Command-Data**
<sn>:	**decimal; CBM Serial Number**
<mid>:	**decimal; CMB Message Identifier**
<page>:	**decimal (0-15); CBM Page Parameter (bits 4-7)**
<pages>:	**decimal (0-15); CBM Page Parameter (bits 0-3)**
<stat int>:	**decimal (0-3);** **0 unread** **1 read** **2 unsent** **3 send**
<pdu>:	**alphanumeric**

ETSI GSM 07.05: Message Sending and Writing Commands

AT +CMGS: Send Message

Description:	**Sends message from a TE to the network (SMS-SUBMIT). Message reference value <mr> is returned to the TE on successful message delivery. Optionally (when AT +CSMS <service> value is 1 and network supports) <scts> is returned (in pdu mode <ackpdu>).**
References:	**ETSI GSM 07.05**
Group:	**Message Sending and Writing Commands**
Syntax:	**Extended format**

Command	Possible response(s)
AT +CMGS= **if text mode** **=<da>[,<toda>]<CR>text_is_entered<ctrl-z/ES C>** **if pdu mode**	

=<length><CR>pdu_is_given<ctrl-z/ESC>	
	if text mode +CMGS: <mr>[,<scts>] if pdu mode +CMGS: <mr>[,<ackpdu>] if sending fails +CMS ERROR: <err>
AT +CMGS	n/a
AT +CMGS?	n/a
AT +CMGS=?	

Defined values

<da>:	string; recipient address
<toda>:	decimal (0-255)
<length>:	decimal (1-n)
<mr>:	decimal (n); TP-Message-Reference
<scts>:	string; TP-Service-Centre-Time-Stamp
<ackpdu>:	string (1-n)

AT +CMSS: Send Message from Storage

Description: Sends message from with location value <index> from preferred message storage <mem2> to the network (SMS-SUBMIT or SMS-COMMAND). If new recipient address <da> is given for SMS-SUBMIT, it shall be used instead of the one stored with the message. Reference value <mr> is returned to the TE on successful message delivery. Optionally (when AT +CSMS <service> value is 1 and network supports) <scts> is returned (in pdu mode <ackpdu>).

References: ETSI GSM 07.05

Group: Message Sending and Writing Commands

Syntax: Extended format

Command	Possible response(s)
AT +CMSS=<index>[,<da>[,<toa>]]	
	if text mode +CMSS: <mr>[,<scts>] if pdu mode +CMSS: <mr>[,<ackpdu>] if sending fails +CMS ERROR: <err>
AT +CMSS	n/a
AT +CMSS?	n/a
AT +CMSS=?	

Defined values

<index>:	decimal (1-n); location in <mem2>
<da>:	string; recipient address
<toa>:	decimal (0-255)

<mr>: decimal (n); TP-Message-Reference
<scts>: string; TP-Service-Centre-Time-Stamp
<ackpdu>: string (1-n)

AT +CMGW: Write Message to Memory

Description: Stores message to memory storage <mem2> and returns the location <index>. If <stat> is not given status will be set to 'unsent'.
References: ETSI GSM 07.05
Group: Message Sending and Writing Commands
Syntax: Extended format

Command	Possible response(s)
AT +CMGW= if text mode =<address>[,<toa>[,<stat str>]]<CR> text_is_entered<ctrl-z/ESC> if pdu mode =<length>[,<stat int>]<CR>pdu_is_given< ;ctrl-z/ESC>	
	+CMGW: <index> +CMS ERROR: <err>
AT +CMGW	n/a
AT +CMGW?	n/a
AT +CMGW=?	

Defined values

<address>: string
<toa>: decimal (0-255)
<stat int>: decimal (0-3);
0 unread
1 read
2 unsent
3 send
<stat str>: string;
"REC UNREAD"
"REC READ"
"STO UNSENT"
"STO SEND"
<length>: decimal (1-n)
<index>: decimal (1-n)

AT +CMGD: Delete Message

Description: Deletes message from preferred message storage <mem1> (see AT +CPMS) location <index>.
References: ETSI GSM 07.05
Group: Message Sending and Writing Commands
Syntax: Extended format

Command	Possible response(s)
AT +CMGD=<index>	
	+CMS ERROR: <err>
AT +CMGD	n/a
AT +CMGD?	n/a
AT +CMGD=?	

Defined values

<index>: decimal (1-n)

ITU-T T.32: Fax class 2.0

AT +FAA: Adaptive answer mode

Description: Sets the detection of incoming data calls. This event is reported using the unsolicited result code +FDM.

References: ITU-T T.32

Group: Fax class 2.0

Syntax: Extended format

Command	Possible response(s)
AT +FAA=<value>	
	+CME ERROR: <err>
AT +FAA	n/a
AT +FAA?	<value>
AT +FAA=?	(list of supported <value>s)

Defined values

<value>: decimal (0-1);

0 disabled

1 enabled

AT +FAP: Address and polling capabilities

Description: Defines the polling capabilities of the DCE. Since polling is not supported by this DCE, only disabling is supported.

References: ITU-T T.32

Group: Fax class 2.0

Syntax: Extended format

Command	Possible response(s)
AT +FAP=<sub>[,<sep>[,<pwd>]]	

	+CME ERROR: <err>
AT +FAP	**n/a**
AT +FAP?	**<sub>,<sep>,<pwd>**
AT +FAP=?	**(list of supported <sub>s),(list of supported&nbs p;<sep>s), (list of supported <pwd>s)**

Defined values

<sub>: **decimal (0); inbound subaddressing report +FSA**
0 disabled

<sep>: **decimal (0); selective polling report +FPA**
0 disabled

<pwd>: **decimal (0); password report +FPW**
0 disabled

AT +FBO: Data bit order

Description: **Controls the mapping between PSTN facsimile data and the DTE-DCE link. There are two choices**

Direct **The first bit transferred of each octet on the DTE-DCE link is the first bit transferred on the GSTN data carrier**

Reversed **The last bit transferred of each octet on the DTE-DCE link is the first bit transferred on the GSTN data carrier (see +FHR, +FHT)**

References: **ITU-T T.32**

Group: **Fax class 2.0**

Syntax: **Extended format**

Command	Possible response(s)
AT +FBO=<value>	
	+CME ERROR: <err>
AT +FBO	**n/a**
AT +FBO?	**<value>**
AT +FBO=?	**(list of supported <value>s)**

Defined values

<value>: **decimal (0-3);**
0 no reversed phase
1 Phase C reversed
2 Rev Phase B/D
3 Rev Phase B/C/D

AT +FBS: Buffer size

Description: **Reports the V.24 rx/tx buffer sizes in the DCE.**

References: **ITU-T T.32**

Group: **Fax class 2.0**

Syntax: **Extended format**

Command	Possible response(s)
AT +FBS=...	n/a
AT +FBS	n/a
AT +FBS?	<tbs>,<rbs>
AT +FBS=?	

Defined values

<tbs>: hexadecimal; Transmit (DTE to DCE) buffer size

<rbs>: hexadecimal; Receive (DCE to DTE) buffer size

AT +FBU: HDLC frame reporting enable

Description: Enables HDLC frame reporting using +FHR and +FHT responses

References: ITU-T T.32

Group: Fax class 2.0

Syntax: Extended format

Command	Possible response(s)
AT +FBU=<value>	
	+CME ERROR: <err>
AT +FBU	n/a
AT +FBU?	<value>
AT +FBU=?	(list of supported <value>s)

Defined values

<value>: decimal (0-1); Frame reporting

0 disabled

1 enabled

AT +FCC: DCE capabilities

Description: Allows the DTE to sense and constrain the capabilities of the facsimile.

References: ITU-T T.32

Group: Fax class 2.0

Syntax: Extended format

Command	Possible response(s)
AT +FCC=<VR>[, [,<WD>[,<LN>[,<DF>[,<EC>[, <BF>[,<ST>[,<JP>]]]]]]]	
	+CME ERROR: <err>
AT +FCC	n/a
AT +FCC?	<VR>, ,<WD>,<LN>,<DF>,<EC>,<BF>,< ;ST>,<JP>

AT +FCC=?	**(list of supported <VR>s),(list of supported ; s), (list of supported <WD>s),(list of&nbs p;supported <LN>s), (list of supported <DF>s),(list of&nbs p;supported <EC>s), (list of supported <BF>s),(list of&nbs p;supported <ST>s), (list of supported <JP>s)**

Defined values

<VR>: **decimal (0-1); Resolution**
- **0 normal**
- **1 fine**

**
:** **decimal (0-3); Bit Rate**
- **0 2400 bps**
- **1 4800 bps**
- **2 7200 bps**
- **3 9600 bps**

<WD>: **decimal (0); Page Width**
- **0 1728 pixels**

<LN>: **decimal (0-2); Page Length**
- **0 A4**
- **1 B4**
- **2 Unlimited length**

<DF>: **decimal (0); Data Compression Format**
- **0 1-D Modified Huffman (Rec. T.4)**

<EC>: **decimal (0); Error Correction**
- **0 Disable ECM**

<BF>: **decimal (0); File Transfer**
- **0 Disable file transfer modes**

<ST>: **decimal (0-7); Scan Time per Line**
- **0 0 ms**
- **1 5 ms**
- **2 <VR>=0: 10 ms else 5 ms**
- **3 10 ms**
- **4 <VR>=0: 20 ms else 10 ms**
- **5 20 ms**
- **6 <VR>=0: 40 ms else 20 ms**
- **7 40 ms**

<JP>: **decimal (0); JPEG**
- **0 Disable JPEG coding**

AT +FCLASS: Service Class Identification and Control

Description: **Switches the DCE into the requested mode. To start or to accept calls in a certain mode, the DTE has to be switched into this mode. After each call attempt the mode is reset to 0 (data mode). Mode 8 (voice) only supports dialling and accepting voice calls and generating DTMF tones. It does not support transfer of speech samples, etc.**

References: **ITU-T T.32**

Group: **Fax class 2.0**

Syntax: **Extended format**

Command	Possible response(s)
AT +FCLASS=<class>	
	+CME ERROR: <err>
AT +FCLASS	n/a
AT +FCLASS?	<class>
AT +FCLASS=?	list of supported <class>s

Defined values

<class>: **decimal (0,2.0,8);**
- **0 data mode**
- **2.0 fax mode**
- **8 voice mode**

AT +FCQ: Copy quality

Description: **Controls the automatic check of Phase C data for bad scan lines.**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FCQ=<rq>[,<tq>]	
	+CME ERROR: <err>
AT +FCQ	n/a
AT +FCQ?	<rq>,<tq>
AT +FCQ=?	(list of supported <rq>s),(list of supported ;<tq>s)

Defined values

<rq>: **decimal (0);**
- **0 disable Phase C check (from the network)**

<tq>: **decimal (0);**
- **0 disable Phase C check (from the local DTE)**

AT +FCR: Capability to receive

Description: **Controls bit 10 in the DIS frame. This bit defines whether a station is able to receive a fax message or not.**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FCR=<value>	

	+CME ERROR: <err>
AT +FCR	**n/a**
AT +FCR?	**<value>**
AT +FCR=?	**(list of supported <value>s)**

Defined values

<value>: **decimal (1);**
1 DTE is able to receive fax messages

AT +FCS: Report the DCS frame information

Description: **Reports the negotiated session parameters.**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FCS=...	**n/a**
AT +FCS	**n/a**
AT +FCS?	**<VR>, ,<WD>,<LN>,<DF>,<EC>,<BF>,< ;ST>,<JP>**
AT +FCS=?	

Defined values

<VR>: **decimal (0-1); Resolution**
0 normal
1 fine

**
:** **decimal (0-3); Bit Rate(bps)**
0 2400
1 4800
2 7200
3 9600

<WD>: **decimal (0); Page Width (pixels)**
0 1728

<LN>: **decimal (0-2); Page Length**
0 A4
1 B4
2 Unlimited length

<DF>: **decimal (0); Data Compression Format**
0 1-D Modified Huffman (Rec. T.4)

<EC>: **decimal (0); Error Correction**
0 Disable ECM

<BF>: **decimal (0); File Transfer**
0 Disable file transfer modes

<ST>: **decimal (0-7); Scan Time per Line**
0 0 ms
1 5 ms
2 <VR>=0: 10 ms else 5 ms
3 10 ms
4 <VR>=0: 20 ms else 10 ms
5 20 ms
6 <VR>=0: 40 ms else 20 ms
7 40 ms

<JP>: **decimal (0); JPEG**
0 Disable JPEG coding

AT +FCT: Phase C timeout

Description: **Determines how long the DCE will wait for a command after having transmitted all available Phase C data. Attention: This command has no effect and is only supported for compatibility reasons.**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FCT=<timeout>	
	+CME ERROR: <err>
AT +FCT	n/a
AT +FCT?	<timeout>
AT +FCT=?	(list of supported <timeout>s)

Defined values

<timeout>: **hexadecimal (1E); seconds**
1E 30 seconds (default)

AT +FDR: Receive a page

Description: **This command initiates transition to Phase C to receive binary T.4 data from the remote Fax machine and forwards the data to the local DTE.**
All following AT commands in the same line are ignored.
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FDR=...	n/a
AT +FDR	+CME ERROR: <err>
AT +FDR?	n/a

AT +FDR=?	

AT +FDT: Send a page

Description: This command initiates transition to Phase C to transmit binary T.4 data from the local DTE to the remote Fax machine.
All following AT commands in the same line are ignored.

References: ITU-T T.32

Group: Fax class 2.0

Syntax: Extended format

Command	Possible response(s)
AT +FDT=...	**n/a**
AT +FDT	**+CME ERROR: <err>**
AT +FDT?	**n/a**
AT +FDT=?	

AT +FEA: Phase C received EOL alignment< /H3>

Description: Sets optional octet-alignment of EOL markers in received T.4 data streams.

References: ITU-T T.32

Group: Fax class 2.0

Syntax: Extended format

Command	Possible response(s)
AT +FEA=<value>	
	+CME ERROR: <err>
AT +FEA	**n/a**
AT +FEA?	**<value>**
AT +FEA=?	**(list of supported <value>s)**

Defined values

<value>: decimal (0);
0 disable octet-alignment

AT +FFC: Image data format conversion

Description: This compound parameter determines the DCE response to mismatches between the Phase C data delivered after the +FDT command and the data format parameters negotiated for the facsimile session.

References: ITU-T T.32

Group: Fax class 2.0

Syntax: **Extended format**

Command	Possible response(s)
AT +FFC=[<vrc>[,<dfc>[,<lnc>[,<wdc>]]]]	
	+CME ERROR: <err>
AT +FFC	n/a
AT +FFC?	<vrc>,<dfc>,<lnc>,<wdc>
AT +FFC=?	(list of supported <vrc>s),(list of supported&nbs p;<dfc>s), (list of supported <lnc>s),(list of supported&nbs p;<wdc>s)

Defined values

<vrc>: decimal (0); Vertical resolution format codes
0 ignored

<dfc>: decimal (0); Data format format codes
0 ignored

<lnc>: decimal (0); Page length format codes
0 ignored

<wdc>: decimal (0); Page width format codes
0 ignored

AT +FHS: Inquire call termination status

Description: Returns call termination status. The status is set by the DCE at the conclusion of a fax session. The DCE resets <hsc> to 00 at the beginning of Phase A. See also +FHS.
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FHS=...	n/a
AT +FHS	n/a
AT +FHS?	<hsc>
AT +FHS=?	

Defined values

<hsc>: hexadecimal (00-FF); Hangup status code (two-digit hexadecimal value)
00 Normal and proper end of connection

AT +FIE: Procedure interrupt enable

Description: Sets the DCE to accept Procedure Interrupt Requests sent by the remote fax machine

and initiate transition to voice after successful completion of the Procedure Interrupt Request. Precondition: TS61 fax services must be used.

References: **ITU-T T.32**

Group: **Fax class 2.0**

Syntax: **Extended format**

Command	Possible response(s)
AT +FIE=<value>	
	+CME ERROR: <err>
AT +FIE	n/a
AT +FIE?	<value>
AT +FIE=?	(list of supported <value>s)

Defined values

<value>: **decimal (0-1); PRI-Q requests**

0 disabled

1 enabled

AT +FIP: Initialize Service Class 2.0 parame ters

Description: **Causes the DCE to initialize all Service Class 2.0 Facsimile Parameters to the manufacturer determined default settings. This command does not change the setting of AT +FCLASS.**

References: **ITU-T T.32**

Group: **Fax class 2.0**

Syntax: **Extended format**

Command	Possible response(s)
AT +FIP=<profile>	
	+CME ERROR: <err>
AT +FIP	Same as +FIP=0
AT +FIP?	n/a
AT +FIP=?	(list of supported <profile>s)

Defined values

<profile>: **decimal (0);**

0 Standard

AT +FIS: Report the DIS frame information

Description: **Allows the DTE to sense and constrain the capabilities used for the current session. The DCE uses +FIS to generate DIS messages directly, and uses +FIS and received DIS messages to generate DCS messages.**

References: **ITU-T T.32**

Group: **Fax class 2.0**

Syntax: **Extended format**

Command	Possible response(s)
AT +FIS=<VR>[, [,<WD>[,<LN>[,<DF>[,<EC>[, <BF>[,<ST>[,<JP>]]]]]]]	
	+CME ERROR: <err>
AT +FIS	n/a
AT +FIS?	<VR>, ,<WD>,<LN>,<DF>,<EC>,<BF>,< ;ST>,<JP>
AT +FIS=?	(list of supported <VR>s),(list of supported ; s), (list of supported <WD>s),(list of&nbs p;supported <LN>s), (list of supported <DF>s),(list of&nbs p;supported <EC>s), (list of supported <BF>s),(list of&nbs p;supported <ST>s), (list of supported <JP>s)

Defined values

<VR>: decimal (0-1); Resolution
- 0 normal
- 1 fine

**
:** decimal (0-3); Bit Rate
- 0 2400 bps
- 1 4800 bps
- 2 7200 bps
- 3 9600 bps

<WD>: decimal (0); Page Width
- 0 1728 pixels

<LN>: decimal (0-2); Page Length
- 0 A4
- 1 B4
- 2 Unlimited length

<DF>: decimal (0); Data Compression Format
- 0 1-D Modified Huffman (Rec. T.4)

<EC>: decimal (0); Error Correction
- 0 Disable ECM

<BF>: decimal (0); File Transfer
- 0 Disable file transfer modes

<ST>: decimal (0-7); Scan Time per Line
- 0 0 ms
- 1 5 ms
- 2 <VR>=0: 10 ms else 5 ms
- 3 10 ms
- 4 <VR>=0: 20 ms else 10 ms
- 5 20 ms
- 6 <VR>=0: 40 ms else 20 ms
- 7 40 ms

<JP>: decimal (0); JPEG
- 0 Disable JPEG coding

AT +FIT: DTE inactivity timer

Description: Sets the inactivity timeout value. Each single activity on the DTE-DCE link resets the timer
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FIT=<time>,<action>	
	+CME ERROR: <err>
AT +FIT	n/a
AT +FIT?	<time>,<action>
AT +FIT=?	(list of supported <time>s),(list of supported&nb sp;<action>s)

Defined values

<time>: hexadecimal (0-FF);
- 00 timeout disabled
- 01-FF inactivity timeout in seconds

<action>: hexadecimal (0);
- 0 upon timeout go on-hook and reset to AT +FCLASS=0

AT +FKS: Terminate a session, orderly fax ab ort

Description: Causes the DCE to terminate the session in an orderly manner. In particular, it will send a DCN message at the next opportunity and hang up.
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FKS=...	n/a
AT +FKS	+CME ERROR: <err>
AT +FKS?	n/a
AT +FKS=?	

AT +FLI: Local ID string parameter, TSI or C SI

Description: The 20 character printable T.50 string set with +FLI is used when sending a TSI or CSI frame to the remote fax.
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FLI=<TSI/CSI>	
	+CME ERROR: <err>
AT +FLI	n/a
AT +FLI?	<TSI/CSI>
AT +FLI=?	(character set of <TSI/CSI>)

Defined values

<TSI/CSI>: string (20-7E)

AT +FLO: Local flow control

Description: Sets local flow control between DTE/DCT using command AT +IFC.
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FLO=<value>	
	+CME ERROR: <err>
AT +FLO	n/a
AT +FLO?	<value>
AT +FLO=?	(list of supported <value>s)

Defined values

<value>: decimal (0-2);

0 Execute AT +IFC=0,0
1 Execute AT +IFC=1,1
2 Execute AT +IFC=2,2

AT +FLP: Indicate document available for pol ling

Description: Indicates whether the DTE has a document to poll. Polling is not supported by this DCE.
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FLP=<value>	
	+CME ERROR: <err>
AT +FLP	n/a
AT +FLP?	<value>

AT +FLP=?	(list of supported <value>s)

Defined values

<value>: **decimal (0);**
0 No document to poll

AT +FMI: Request manufacturer identification

Description: **Returns information to identify the TA manufacturer**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FMI=...	n/a
AT +FMI	<manufacturer> +CME ERROR: <err>
AT +FMI?	n/a
AT +FMI=?	

Defined values

<manufacturer>: **alphanumeric**

AT +FMM: Request model identification

Description: **Returns information to identify the TA model**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FMM=...	n/a
AT +FMM	<model> +CME ERROR: <err>
AT +FMM?	n/a
AT +FMM=?	

Defined values

<model>: **alphanumeric**

AT +FMR: Request revision identification

Description: Returns information to identify the TA version, revision level or date.
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FMR=...	n/a
AT +FMR	<revision> +CME ERROR: <err>
AT +FMR?	n/a
AT +FMR=?	

Defined values
<revision>: alphanumeric

AT +FMS: Minimum Phase C speed

Description: Sets the minimum speed to be used by the DCE during a fax transfer. When the defined speed cannot be used (Training failed or remote fax does not support requested speed) the call will be aborted.
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FMS= 	
	+CME ERROR: <err>
AT +FMS	n/a
AT +FMS?	
AT +FMS=?	(list of supported s)

Defined values
**
:** decimal (0-3);
0 2400
1 4800
2 7200
3 9600

AT +FNR: Negotiation message reporting contr ol parameters

Description: Sets different reports during T.30 negotiation phases.
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FNR=<rpr>,<tpr>,<idr>,<nsr>	
	+CME ERROR: <err>
AT +FNR	n/a
AT +FNR?	<rpr>,<tpr>,<idr>,<nsr>
AT +FNR=?	(list of supported <rpr>s),(list of supported&nbs p;<tpr>s), (list of supported <idr>s),(list of supported&nbs p;<nsr>s)

Defined values

<rpr>: decimal (0-1); Receiver parameters reports +FIS and +FTC
- 0 suppressed
- 1 generated

<tpr>: decimal (0-1); Transmitter parameters reports +FCS
- 0 suppressed
- 1 generated

<idr>: decimal (0-1); ID strings reports +FTI, +FCI and +FPI
- 0 suppressed
- 1 generated

<nsr>: decimal (0-1); Non-standard frames reports +FNF, +FNS and +FNC
- 0 suppressed
- 1 generated

AT +FND: Non-standard message data indicatio n

Description: This command is only supported for compatability reasons. According to GSM 03.45 a GSM terminal is not allowed to forward a NSF messages in either direction.
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FND=[<value>]	
	+CME ERROR: <err>
AT +FND	n/a
AT +FND?	<value>
AT +FND=?	(list of supported <value>s)

Defined values

<value>: decimal (0-1); The message type is
- 0 specified in DCS (default)
- 1 non-standard

AT +FPA: Selective polling address parameter

Description: **Polling is not supported by this DCE.**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FPA=<spa>	
	+CME ERROR: <err>
AT +FPA	n/a
AT +FPA?	<spa>
AT +FPA=?	(character set of <spa>)

Defined values
<spa>: **string; Selective Polling Address**

AT +FPI: Local polling ID string parameter

Description: **Polling is not supported by this DCE**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FPI=<CIG>	
	+CME ERROR: <err>
AT +FPI	n/a
AT +FPI?	<CIG>
AT +FPI=?	(character set of <CIG>)

Defined values
<CIG>: **string (20-7E)**

AT +FPR: Set DTE-DCE rate

Description: **Sets DTE-DCE Rate, value 255 only available with read operation**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FPR=<value>	
	+CME ERROR: <err>

AT +FPR	**n/a**
AT +FPR?	**<value>**
AT +FPR=?	**(list of supported <value>s)**

Defined values

<value>: **decimal (0,1,2,4,8);**

- **0 Executes AT +IPR=0**
- **1 Executes AT +IPR=2400**
- **2 Executes AT +IPR=4800**
- **4 Executes AT +IPR=9600**
- **8 Executes AT +IPR=19200**
- **255 invalid setting**

AT +FSA: SubAddress parameter

Description: **Sub Addressing is not supported with this DCE.**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FSA=<subaddr>	
	+CME ERROR: <err>
AT +FSA	**n/a**
AT +FSA?	**<subaddr>**
AT +FSA=?	**(character set of <subaddr>)**

Defined values

<subaddr>: **string; Sub Address**

AT +FPW: Password parameter (sending or poll ing)

Description: **PassWord is not supported with this DCE.**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FPW=<password>	
	+CME ERROR: <err>
AT +FPW	**n/a**
AT +FPW?	**<password>**
AT +FPW=?	**(character set of <password>)**

Defined values

<password>: **string**

AT +FPP: Packet protocol control

Description: **Packet protocol is not supported with this DCE.**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FPP=<value>	
	+CME ERROR: <err>
AT +FPP	n/a
AT +FPP?	<value>
AT +FPP=?	(list of supported <value>s)

Defined values

<value>: **decimal (0)**

AT +FPS: Page status parameter

Description: **Sets page status parameter.**
References: **ITU-T T.32**
Group: **Fax class 2.0**
Syntax: **Extended format**

Command	Possible response(s)
AT +FPS=<value>	
	+CME ERROR: <err>
AT +FPS	n/a
AT +FPS?	<value>
AT +FPS=?	(list of supported <value>s)

Defined values

<value>: **decimal (1-5);**

1 **MCF - Page good**
2 **RTN - Page bad, retrain requested**
3 **RTP - Page good, retrain requested**
4 **PIN - Page bad, interrupt requested**
5 **PIP - Page good, interrupt requested**

AT +FRQ: Receive quality thresholds paramete rs

Description: Copy quality checking is not supported by this DCE.
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FRQ=[<pgl>[,<cbl>]]	
	+CME ERROR: <err>
AT +FRQ	n/a
AT +FRQ?	<pgl>,<cbl>
AT +FRQ=?	(list of supported <pgl>s),(list of supported&nbs p;<cbl>s)

Defined values
<pgl>: decimal (0); Percentage of good lines
<cbl>: decimal (0); Maximum tolerable number of consecutive bad lines

AT +FRY: ECM Retry value parameter

Description: Packet protocol is not supported by this DCE
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)
AT +FRY=<value>	
	+CME ERROR: <err>
AT +FRY	n/a
AT +FRY?	<value>
AT +FRY=?	(list of supported <value>s)

Defined values
<value>: decimal (0)

AT +FSP: Request to poll parameter

Description: Polling is not supported by this DCE
References: ITU-T T.32
Group: Fax class 2.0
Syntax: Extended format

Command	Possible response(s)

AT +FSP=<value>	
	+CME ERROR: <err>
AT +FSP	n/a
AT +FSP?	<value>
AT +FSP=?	(list of supported <value>s)

Defined values

<value>: decimal (0); Indicates that the DTE
- **0** does not want to poll. Bit 9 in a received DIS frame will be ignored.

Proprietary commands

AT *APON: Switch on phone

Description: Simple command variant changes the mode of the ME from 'Charging Only' to 'On'. Set command variant controls reporting of unsolicited result code *APON when ME enters 'On' state.
References: None
Group: Proprietary commands
Syntax: Extended format

Command	Possible response(s)
AT *APON=<report>	
	+CME ERROR: <err>
AT *APON	
AT *APON?	*APON: <report>,<mode>
AT *APON=?	*APON: (list of supported <report>s)

Defined values

<report>: decimal (0-1); Reporting
- **0** off
- **1** on

<mode>: decimal (0-4); Current mode of the ME.
- **0** 'On'
- **1** 'Charging Only'
- **2** Switching to 'On'
- **3** Switching to 'Charging Only' or 'Off'
- **4** unknown

AT *APOFF: Switch off phone

Description: Simple command variant changes the mode of the ME from 'On' to 'Charging Only'. Set command variant controls reporting of unsolicited result code *APOFF when ME enters 'Charging Only' state.

References: None
Group: Proprietary commands
Syntax: Extended format

Command	Possible response(s)
AT *APOFF=<report>	
	+CME ERROR: <err>
AT *APOFF	
AT *APOFF?	*APOFF: <report>,<mode>
AT *APOFF=?	*APOFF: (list of supported <report>s)

Defined values

<report>: decimal (0-1); Reporting
- 0 off
- 1 on

<mode>: decimal (0-4); Current mode of the ME
- 0 'On'
- 1 'Charging Only'
- 2 Switching to 'On'
- 3 Switching to 'Charging Only' or 'Off'
- 4 unknown

AT *AUDIO: Switch internal/external audio< /A>

Description: Sets the audio path and level.
References: None
Group: Proprietary commands
Syntax: Extended format

Command	Possible response(s)
AT *AUDIO=<path>[,<level>]	
	+CME ERROR: <err>
AT *AUDIO	n/a
AT *AUDIO?	*AUDIO: <path>,<level>
AT *AUDIO=?	*AUDIO: (list of supported <path>s),(list of ;supported <level>s)

Defined values

<path>: decimal (0-1); Audio path
- 0 internal
- 1 external

<level>: decimal (1-6); External Audio level
- 0 most quiet

AT *ANMEA: Enter NMEA mode

Description: Sets the NMEA interface of the TA in one of three possible modes:

NMEA off	Standard AT mode, no NMEA sentences can be requested
NMEA on	Standard AT mode, but NMEA sentences can be requested with AT *AGPS
exclusive	Acknowledges that NMEA mode is possible with OK (else ERROR), then switches from Standard AT to NMEA mode. From now on TA sends NMEA sentences to DTE immediately when received from ME (4800,8/N/1). AT commands are no longer possible. To return to AT mode DTE has to drop DTR. Phone drops DSR in the same case. Back in AT mode, TA uses the previous settings for the DCE-DTE interface

References: None

Group: Proprietary commands

Syntax: Extended format

Command	Possible response(s)
AT *ANMEA=<mode>	
	+CME ERROR: <err>
AT *ANMEA	Same as *ANMEA=2
AT *ANMEA?	*ANMEA: <mode>
AT *ANMEA=?	*ANMEA: (list of supported <mode>s)

Defined values

<mode>: decimal (0-2); NMEA

0	off
1	on
2	exclusive

AT *AGPS: Request GPS NMEA sentence

Description: Returns the last collected GPS NMEA sentence, if TA is in the right mode (set with AT *ANMEA=1).

References: None

Group: Proprietary commands

Syntax: Extended format

Command	Possible response(s)
AT *AGPS=...	n/a
AT *AGPS	*AGPS: <sentence> +CME ERROR: <err>
AT *AGPS?	n/a
AT *AGPS=?	

Defined values

<sentence>: alphanumeric

AT *AVTS: DTMF generation in voice calls

Description: Transmits a DTMF tone (given as a single ASCII character) for <duration>/10 seconds.
References: None
Group: Proprietary commands
Syntax: Extended format

Command	Possible response(s)
AT *AVTS=<DTMF>[,<duration>]	
	+CME ERROR: <err>
AT *AVTS	n/a
AT *AVTS?	n/a
AT *AVTS=?	*AVTS: (list of supported <duration>s)

Defined values
<DTMF>: character (0-9,#,*,A-D,a-d)
<duration>: decimal (1-300); tenths of seconds

Other commands

AT &K: Set flow control between DCE and DTE

Description: Internally done via AT +IFC.
References: None
Group: Other commands
Syntax: Basic format

Command	Possible response(s)
AT &K[<value>]	
	+CME ERROR: <err>

Defined values
<value>: decimal (0,3,4-6); Flow control
- 0 None
- 3 HW
- 4-6 SW

AT &V: Print profile content to DTE

Description: Prints the content of the active and all stored profiles to DTE. See also AT Z and AT &W.
References: None
Group: Other commands
Syntax: Basic format

Command	Possible response(s)
AT &V	
	<content> +CME ERROR: <err>

Defined values

<content>: alphanumeric

AT &W: Save settings in profile

Description: Saves the content of the active profile to non-volatile storage <id>. See also AT Z and AT &V.
References: None
Group: Other commands
Syntax: Basic format

Command	Possible response(s)
AT &W[<id>]	
	+CME ERROR: <err>

Defined values

<id>: decimal (0-1)

Summary of result codes

There are three different types of result codes:

final	Shows the result of the last executed command line
intermediate	Shows that a command has reached an intermediate state but the execution continues
unsolicited	Reports an event. This can happen during the execution of a command or in offline command state

The reporting of some of the result codes can be controlled by various AT commands.

*APOFF: 'ME switched off' indication

Description: Reports that ME has been switched off. Controlled by AT *APOFF.
References: None
Type: Unsolicited result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	*APOFF: switched off

*APON: 'ME switched on' indication

Description: Reports that ME has been switched on. Controlled by AT *APON.
References: None
Type: Unsolicited result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	*APON: switched on

+CLIP: 'Calling line' indication

Description: Reports the calling party. Controlled by AT +CLIP.
References: ETSI GSM 07.07
Type: Unsolicited result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+CLIP: <number>,<type>[,<subaddr>,<satype>[,<alp ha>]

Defined values
<number>: string; Calling party
<type>: decimal (0-255)
<subaddr>: string
<satype>: decimal (0-255)
<alpha>: string; Phonebook entry

+CME: 'Extended error' result

Description: Extended report of error cause. Controlled by AT +CMEE.
References: ETSI GSM 07.07
Type: Final result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+CME ERROR <err>

Defined values
<err>: := (<err numeric>|<err text>)
<err numeric>: decimal
<err text>: string

+CMS: 'SMS extended error' result

Description: Extended report of error cause (used for GSM 07.05 commands). Controlled by AT +CMEE.
References: ETSI GSM 07.05
Type: Final result code

Numeric (AT V0)	Verbose result code (AT V1)

As verbose	**+CMS ERROR <err>**

Defined values

<err>: **:= {<err numeric>|<err text>}**
<err numeric>: **decimal**
<err text>: **string**

+CR: 'Service' report

Description: **Reports service. Controlled by AT +CR.**
References: **ETSI GSM 07.07**
Type: **Intermediate result code**

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	**+CR: <service>**

Defined values

<service>: **alphanumeric;**
ASYNC
SYNC
REL ASYNC
REL SYNC

+CREG: 'Network registration' indication

Description: **Reports changes in network registration. Controlled by AT +CREG.**
References: **ETSI GSM 07.07**
Type: **Unsolicited result code**

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	**+CREG: <stat> // AT +CREG=1** **+CREG: <stat>[,<lac>,<ci>] // AT +CREG=2**

Defined values

<stat>: **decimal (0-5);**
0 not registered
1 registered (home)
2 not registered (searching)
3 registration denied
4 unknown
5 registered (roaming)
<lac>: **string (4); location area code**
<ci>: **string (4); cell ID**

+CRING: 'Incoming call' extended indication

Description: Extended report of incoming call signal from network. Controlled by AT +CRC.
References: ETSI GSM 07.07
Type: Unsolicited result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+CRING: <type>

Defined values

<type>: alphanumeric;
ASYNC
REL ASYNC
FAX
VOICE
ALT VOICE/FAX
ALT FAX/VOICE

+FCI: 'Called Station ID (CIS)' report

Description: Reports during T.30 negotiation phase the received <csi>. Controlled by AT +FNR.
References: ITU-T T.32
Type: Intermediate result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+FCI: <csi>

Defined values

<csi>: string; Called Station identifier

+FCO: 'Facsimile connection' report

Description: Reports connection with a Group 3 facsimile station (in execution of Originate or Answer commands only).
References: ITU-T T.32
Type: Intermediate result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+FCO

+FCS: 'Current session parameters (DCS)' report

Description: Reports during T.30 negotiation phase the negotiated parameters (DCS). Controlled by AT +FNR.
References: ITU-T T.32
Type: Intermediate result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+FCS: <VR>, ,<WD>,<LN>,<DF>,<EC>,< ;BF>,<ST>

Defined values

<VR>: decimal (0-1); Resolution
- 00 R8 x 3.85, normal
- 01 R8 x 7.7, fine

**
:** decimal (0-3); Bit Rate
- 0 2400 bit/s
- 1 4800 bit/s
- 2 7200 bit/s
- 3 9600 bit/s

<WD>: decimal (0); Page Width
- 0 R8: 1728 pixels

<LN>: decimal (0-2); Page Length
- 0 A4, 297 mm
- 1 B4, 364 mm
- 2 Unlimited length

<DF>: decimal (0); Data Compression Format
- 0 1-D Modified Huffman

<EC>: decimal (0); Error Correction
- 0 Disable ECM

<BF>: decimal (0); File Transfer
- 00 Disable file transfer modes

<ST>: decimal (0-7); Scan Time per Line
- 0 0 ms
- 1 5 ms
- 2 <VR>=0: 10 ms else 5 ms
- 3 10 ms
- 4 <VR>=0: 20 ms else 10 ms
- 5 20 ms
- 6 <VR>=0: 40 ms else 20 ms
- 7 40 ms

<JP>: decimal (0); JPEG for colour and B&W
- 00 Disable JPEG coding

+FET: 'Post page message' report

Description: Reports reception of the post page message from the transmitting station, in execution of a AT +FDR command.

References: ITU-T T.32

Type: Intermediate result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+FET: <ppm>

Defined values

<ppm>: **hexadecimal (0-5); Post page message**

- **0 MPS - Another page next, same document**
- **1 EOM - Another document next**
- **2 EOP - No more pages or documents**
- **3 PRI-MPS - Another page next, same document, procedure interrupt requested**
- **4 PRI-EOM - Another document next, procedure interrupt requested**
- **5 PRI-EOP - No more pages or documents, procedure interrupt requested**

+FHR: 'Received HDLC frame' report

Description: **Reports the HDLC data that was received by the DCE. Controlled by AT +FBU.**
References: **ITU-T T.32**
Type: **Intermediate result code**

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+FHR: <frame data>

Defined values

<frame data>: **octet stream; Received HDLC frame octets**

+FHS: 'Call termination status' report

Description: **Reports that the current call has been terminated. The hangup cause is reported and stored for later inspection. See also AT +FHS.**
References: **ITU-T T.32**
Type: **Intermediate result code**

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+FHS: <hsc>

Defined values

<hsc>: **hexadecimal (00-FF); Hangup status code (two-digit hexadecimal value)**

- **00 Normal and proper end of connection**

+FHT: 'Transmitted HDLC frame' report

Description: **Reports the HDLC data that was sent by the DCE. Controlled by AT +FBU.**
References: **ITU-T T.32**
Type: **Intermediate result code**

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+FHT: <frame data>

Defined values

<frame data>: octet stream; Transmitted HDLC frame octets

+FIS: 'Remote station capabilities (DIS)' report< /A>

Description: Reports during T.30 negotiation phase the received capabilities (DIS). Controlled by AT +FNR.

References: ITU-T T.32

Type: Intermediate result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+FIS: <VR>, ,<WD>,<LN>,<DF>,<EC>,< ;BF>,<ST>

Defined values

<VR>: decimal (0-1); Resolution
- 00 R8 x 3.85, normal
- 01 R8 x 7.7, fine

**
:** decimal (0-3); Bit Rate
- 0 2400 bit/s
- 1 4800 bit/s
- 2 7200 bit/s
- 3 9600 bit/s

<WD>: decimal (0); Page Width
- 0 R8: 1728 pixels

<LN>: decimal (0-2); Page Length
- 0 A4, 297 mm
- 1 B4, 364 mm
- 2 Unlimited length

<DF>: decimal (0); Data Compression Format
- 0 1-D Modified Huffman

<EC>: decimal (0); Error Correction
- 0 Disable ECM

<BF>: decimal (0); File Transfer
- 00 Disable file transfer modes

<ST>: decimal (0-7); Scan Time per Line
- 0 0 ms
- 1 5 ms
- 2 <VR>=0: 10 ms else 5 ms
- 3 10 ms
- 4 <VR>=0: 20 ms else 10 ms
- 5 20 ms
- 6 <VR>=0: 40 ms else 20 ms
- 7 40 ms

<JP>: decimal (0); JPEG for colour and B&W
- 00 Disable JPEG coding

+FPS: 'Received page status' report

Description: Reports <ppr> at the end of Phase C data reception, in execution of a AT +FDR command.
References: ITU-T T.32
Type: Intermediate result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+FPS: <ppr>

Defined values

<ppr>: hexadecimal (1-5); Post page response message
1 MCF - Page good
2 RTN - Page bad, retrain requested
3 RTP - Page good, retrain requested
4 PIN - Page bad, interrupt requested
5 PIP - Page good, interrupt requested

+FTI: 'Transmit Station ID (TSI)' report

Description: Reports during T.30 negotiation phase the received <tsi>. Controlled by AT +FNR.
References: ITU-T T.32
Type: Intermediate result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+FTI: <tsi>

Defined values

<tsi>: string (20); Transmit Station identifier

+FVO: 'Transition to voice' report

Description: Reports that a procedure interrupt has been negotiated and confirmed, and the fax session has been suspended; the DCE has switched to voice mode and remains off-hook.
References: ITU-T T.32
Type: Intermediate result code

Numeric (AT V0)	Verbose result code (AT V1)
As verbose	+FVO

BUSY: 'Busy signal detected' result

Description: Busy signal detected
References: ITU-T V.25ter
Type: Final result code

Numeric (AT V0)	Verbose result code (AT V1)

7	**BUSY**

CONNECT: 'Connection established' report

Description: Connection has been established. Controlled by AT X.
References: ITU-T V.25ter
Type: Intermediate result code

Numeric (AT V0)	Verbose result code (AT V1)
1	**CONNECT**

CONNECT <x>: 'Connection establish ed' extended report

Description: As CONNECT but manufacturer specific <text> gives additional information (e.g. connection data rate). Controlled by AT X.
References: ITU-T V.25ter
Type: Intermediate result code

Numeric (AT V0)	Verbose result code (AT V1)
None	**CONNECT <text>**

Defined values
<text>: alphanumeric

ERROR: 'Error' result

Description: Command not accepted. Controlled by AT +CMEE.
References: ITU-T V.25ter
Type: Final result code

Numeric (AT V0)	Verbose result code (AT V1)
4	**ERROR**

NO ANSWER: 'Connection completion timeout' result

Description: Connection completion timeout.
References: ITU-T V.25ter
Type: Final result code

Numeric (AT V0)	Verbose result code (AT V1)
8	**NO ANSWER**

NO CARRIER: 'Connection terminated' resul t

Description: Connection terminated
References: ITU-T V.25ter
Type: Final result code

Numeric (AT V0)	Verbose result code (AT V1)
3	NO CARRIER

NO DIALTONE: 'No dialtone' result

Description: No dialtone detected
References: ITU-T V.25ter
Type: Final result code

Numeric (AT V0)	Verbose result code (AT V1)
6	NO DIALTONE

OK: 'Command line executed' result

Description: Acknowledges execution of command line
References: ITU-T V.25ter
Type: Final result code

Numeric (AT V0)	Verbose result code (AT V1)
0	OK

RING: 'Incoming call' indication

Description: Incoming call signal from network. Controlled by AT +CRC.
References: ITU-T V.25ter
Type: Unsolicited result code

Numeric (AT V0)	Verbose result code (AT V1)
2	RING

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D	D				
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I	I				
L	L				
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