Application Note AN1905 Platform 6 Command Description Manual

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pei tel Communications GmbH
info@peitel.de
www.peitel.de

Table of Contents

0 History

Date	Revision	Author	Comments
August 2019	1.0	CS	First Release
March 2020	1.1	CS	Added Network Technology Selection

Table 1: History

0.1 Related Documents

No.	Name	Remarks
1	PTCarPhone 6 Quick Reference Guide	Download from www.peitel.de
2	PTCarPhone 6 User Manual	Download from www.peitel.de
3	AN1906 IO Interface Manual for the Platform 6 Family	Download from www.peitel.de
4	Telit AT Commands Reference Guide	Module LE910C1/4

Table 2: Related Documents

1 Introduction

This document describes the control commands for the **PTCarPhone 6, PTVoiceBox 4G, MCH** product family. To make things easier and out of habit, the product is called "PTCarPhone" in this document.

The commands in this manual allow administrating the PTCarPhone via SMS, USB or serial interface.

Other ways to set up your PTCarPhone, which are not documented in this manual, but nevertheless should be considered, are the MQTT protocol and the online administration platform BRIDGE bridge.peitel.de/en/. BRIDGE covers all PTCarPhone features, settings and more.

1.1 Definitions

Serial Interface

The serial interface is one of the two identical 10 pin western connectors (RJ50) at the electronics box (TPU) of the PTCarPhone. Using a computer, which is connected via a programming cable (see also 1.5.1 Programming Cable's Specification) to this interface, the commands in this manual can be sent directly to the PTCarPhone. To do so, a terminal program (for example HyperTerminal or PuTTY) is required. The connection parameters to set up a connection to the PTCarPhone are described in section 1.5.2 Establishing a Connection via the Serial Interface.

Online Password

The online password prevents unauthorized access to the PTCarPhone. The PTCarPhone executes the commands of this Command Description only, if they are sent to the device via a direct physical connection over the serial interface or by text message (SMS). Sending the commands via SMS requires the sender of the command to login at the PTCarPhone. For this purpose, the online password is used.

The default online password is composed of the last six digits of the IMEI number. The IMEI number can be located on the label of the PTCarPhone. We strongly recommend changing the online password immediately at first set up (see also 4.2 Changing the Online Password).

1.2 Command Structure

Commands can be transmitted to the car phone via the serial interface or text message (SMS). For every command description, the available transmission modes are stated.

Command structure for the transmission via the serial interface

```
AT*ccccc [=parameter]
```

Command structure for the transmission via SMS

```
AT*ccccc ="Online password"[, parameter]

// []: Content of squared brackets is optional; the squared brackets are not part of
the command.
```

1.3 Required Components

- PTCarPhone 6
- Programming cable (see also 1.5.1 Programming Cable's Specification) or USB cable (USB A plug – Mini USB B plug)
- PC
- Terminal program

1.4 Wiring Diagram

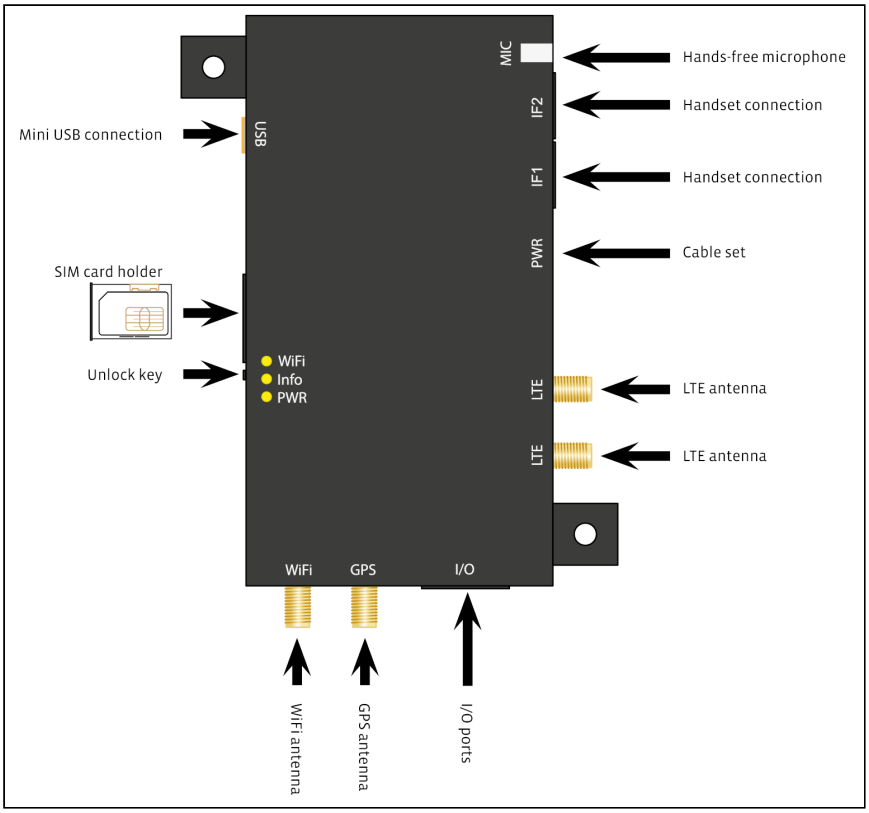

Figure 3: Wiring diagram PTCarPhone 6

1.5 Serial Interface Connection Setup

1.5.1 Programming Cable's Specification

To connect a PTCarPhone to a computer via serial interface, a programming cable is required, which connects the 10 pin western connector of the service interface (a handset connection) to the serial interface (RS232) of the computer. If the computer does not have a serial interface, use additionally a commercially available RS232-to-USB-convertor.

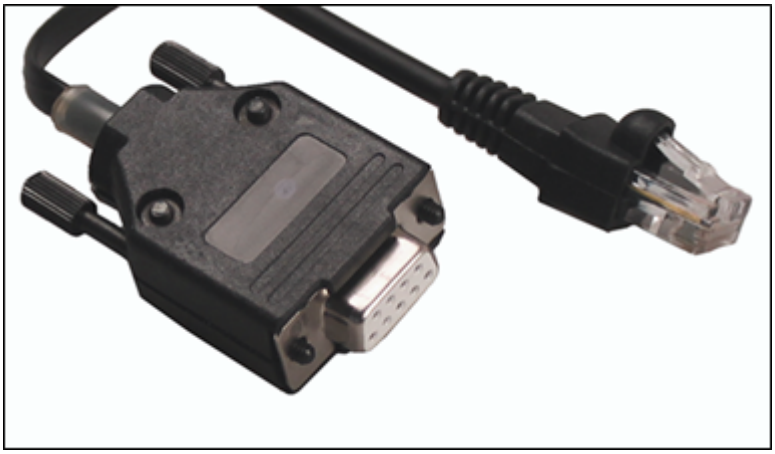

Figure 1: Left RS232 plug (D-Sub), right western plug

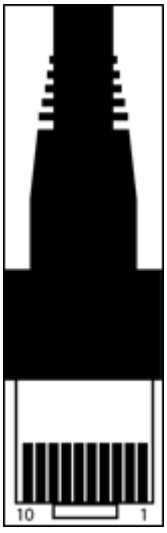

Figure 2: Western plug, 10 pin, numbered

Pin assignment:

DE-9 plug (also known as D-Sub, RS232):

Pin*	Signal
2	RxD
3	TxD
5	GND

* All other pins remain unassigned.

Pin assignment:

Western plug RJ50, 10 pin:

Pin*	Signal
7	TxD
8	RxD
9	GND

* All other pins remain unassigned.

The pins of the female DE-9 plugs are usually numbered.

If you do not have the means to produce a programming cable on your own, it is possible to purchase it from pei tel. Just get in contact with your pei tel distributor or contact pei tel directly.

Please check out www.peitel.de for contact details.

An alternative: Using an USB cable:

- Cable with USB A plug and Mini USB B plug
- Enable the "Service" function in the phone menu: System à Configuration à USB interface.

See 1.6 USB Connection Setup for more information.

1.5.2 Establishing a Connection via the Serial Interface

Communications settings for the terminal program to set up a serial connection:
115200 Baud, 8 data bits, parity none, 1 stop bit (115200, 8, N, 1).

1.6 USB Connection Setup

The following steps are required to activate the command extension on the USB service interface.

1. Activation of the USB service interface (once) (see section 1.6.1 and 1.6.2)
2. Restart PTCarPhone if necessary
3. After starting the PTCarPhone, wait for the message "Application started"
4. Activate API with the command AT*PAPIENABLE=1 (see section 1.7)

1.6.1 Activation of the USB service interface via handset

The default is Modem. To receive commands via USB, the USB interface needs to be switched to Service.

System → Configuration → Device code entry → USB interface → Options Modem or Service.

1.6.2 USB Mode

Now the USB port can be switched to service mode.

This command switches the USB port to service mode and back to modem mode. In modem mode, the device can be used as a mobile modem for example for a PC.

Switching the USB port to service mode is necessary to send commands over the USB interface.

1.6.2.1 Test USB Mode

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PSWITCHUSB=?
```

Reply

```
*PSWITCHUSB: (0-1)

// limitations 0-1
```

1.6.2.2 Set USB Mode

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PSWITCHUSB =m
```

Parameter

```
m: Mode

// 0: Modem
// 1: Service interface
```

Reply

```
OK

// USB mode is set.
```

Example

```
AT*PSWITCHUSB=1
OK
```

1.6.2.3 Query USB Mode

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PSWITCHUSB?
```

Reply

```
*PSWITCHUSB: m
OK

// m: Mode
```

Example

```
AT*PSWITCHUSB?
*PSWITCHUSB: 1
OK
```

1.7 Activation of Command Extension (API)

1.7.1 Activation of Command Extension [API]

The API enables the usage of the command extension. This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PAPIENABLE =m
```

Parameter

```
m: Mode

// 0: API disabled
// 1: API active
```

Reply

```
OK

// API mode is set.
```

Example

```
AT*PAPIENABLE=1
OK
```

1.7.2 Call Indications and Further Indications

After activating the API, the following "indications" are output to the service interface:

1. **#ECAM** - Extended Call Monitoring à ECAM is activated when the PTCarPhone is initialized
    a. Indicate remote ring
    b. Indicate call established
    c. Indicate remote reject call
    d. Indicate remote ends call
2. **+CLIP**:
    a. Indicate call with number
3. **+PCALLNAME**:
    a. Indicate call with name (API-Indication / Name is taken from the phone book)
4. **+PMISSEDCALLS**: n à n = Number of missed calls
5. **+CREG**
    a. Registration in the network (see Telit AT command description)
6. **+CIEV**:
    a. The following indicators are active: AT+CIND=0,1,1,0,1,1,1,1,1 (see Telit AT command description)
    b. Get field strength (included)

The following standard commands are also valid:

1. Get provider name
    a. AT+COPS? (see Telit AT command description)
2. Get field strength
    a. AT+CSQ (see Telit AT command description)

1.8 Commented Overview Plan

Chapter	Topic	Comment
1 Introduction - preparation		
1.6	USB Connection Setup	Activate the command extension on the USB service interface
1.7	Activation of Command Extension (API)	
2 Phonebook - administration of the phone book		
2.1	Listing phone book entries	
2.2	Select an operation mode (OM)	Choose how to restrict incoming and outgoing calls and SMS. • OM 0: No restrictions • OM 1: Phone book entries cannot be copied from the SIM card • OM 2: Outgoing calls are restricted to numbers of the phone book. Emergency calls are possible. • OM 3: Like OM 2 and: Receiving calls is restricted to numbers from the phone book.
2.3	Adding entries to the phone book	
2.4	Delete phone book entry	
2.5	Edit phone book entry	
2.6	Deleting the phone book	
3 Queries		
3.1	Querying the phone settings	Output of all configuration values
3.2	Querying the call duration	Total call duration and last phone call duration
3.3	Querying the software version	Information on the software version of the PTCarPhone
4 Initialization commands		
4.1	Reset to factory defaults	All settings including the online password are reset.

Chapter	Topic	Comment
1 Introduction - preparation		
1.6	USB Connection Setup	Activate the command extension on the USB service interface
1.7	Activation of Command Extension (API)	
4.2	Changing the online password	This password is needed when sending commands via SMS.
4.3	Changing the device code	This code is used for changing the settings on the PTCarPhone.
4.4	Internet and FTP setup	For software updates
4.5	Setting the delay timer	The delay time is the period of time after the vehicle's ignition was turned off, while the PTCarPhone stays switched on.
4.6	Automatic configuration	Pulling the configuration data from a FTP server after the ignition was turned on.
4.7	Setting the virtual ignition	Enabling and disabling the virtual ignition.
4.8	Setting the system time	Setting the system time of the PTCarPhones
5 Update commands		
5.1	Software update	Initialization of a software update
5.2	Unlocking Extras	Unlocking purchased special features
6 Control commands		
6.1	Switching output	Setting switching statuses; only, if the digital output is configured to be a switch.
6.2	I/O configuration	Use this command to define the operation mode of the I/Os.
7 Messages		
7.1	Status Message Switching Output	
7.2	Acknowledgement for Changing the Online Password	

Chapter	Topic	Comment
1 Introduction - preparation		
1.6	USB Connection Setup	Activate the command extension on the USB service interface
1.7	Activation of Command Extension (API)	
7.3	Position Message	
8 Commands for the positioning feature		
8.1	Position query	Query the current position; only if the phone is fitted with a GPS module
9 Configurations		
9.1	Volume	
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9.3	Get SIM pin state	
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9.5	Mute or unmute microphone	
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9.7	Switching incognito mode on/off	
9.8	Set WLAN access point	
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10 Direct calls		
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Chapter	Topic	Comment
1 Introduction - preparation		
1.6	USB Connection Setup	Activate the command extension on the USB service interface
1.7	Activation of Command Extension (API)	
11 Call lists		
11.1	Get call lists	
11.2	Delete Call lists	
12 Sending and receiving SMS		
12.1	Sending SMS	
12.2	Receiving SMS	

2 Phone Book

This chapter describes commands for the administration of the phone book of the PTCarPhone.

The following characteristics can be assigned to every phone book entry:

Enabling:	Digit, 0 or 1	0 Entry is not visible in the handset's menu
		1 Entry is visible in the handset's menu
Speed dial (work):	Digit, 0 – 9	0 Entry has no speed dial number assigned
		1 – 9 Key 1 to 9 are assigned as speed dial numbers
Speed dial (mobile):	Digit, 0 – 9	0 Entry has no speed dial number assigned
		1 – 9 Key 1 to 9 are assigned as speed dial numbers
Speed dial (home):	Digit, 0 – 9	0 Entry has no speed dial number assigned
		1 – 9 Key 1 to 9 are assigned as speed dial numbers

2.1 Listing Phone Book Entries

These commands are used to generate a list of phone book entries. The output can be limited by parameters.

2.1.1 Test

This command is available via serial interface only.

Syntax

```
AT*TITB=?
```

Reply

```
*TITB: (1-5000),(1-5000)
OK

// The output is limited to a value between 1 and 5000
```

2.1.2 Output

Output of entries from entry number n to entry number m. If only one entry is required, only its entry number n needs to be stated. This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*TITB=n,m
```

Parameter

```
n: First index of the list
m: Last index of the list
```

Reply

```
*TITB: i,number(work),number(mobile),number(home),fkkk,surname,first name
OK

// i: Index of the phone book entry
// number: Phone number (work, mobile, home)
// fkkk: Characteristics for enabling, speed dial (work), speed dial (mobile), speed
dial (home)
// surname: Surname of the phone book entry
// first name: First name of the phone book entry
```

Example

```
AT*TITB=3,5
*TITB: 3,"+4930123456","","",1200,"Headquarter",""
*TITB: 4, "","016012345678","",1000, "Lehmann","Max"
*TITB: 5, "","","+15550123456",1000,"Doe","John"
OK
```

2.1.3 Querying Storage Space

The amount of occupied storage locations and the amount of total storage locations are queried. This command is available via serial interface only.

Syntax

```
AT*TITB?
```

Reply

```
*TITB: x,5000
OK

// x: Number of occupied storage Locations
// 5000: Maximum number of storage Locations
```

Example

```
AT*TITB?
*TITB: 49,5000
OK
```

2.2 Selecting the Operation Mode

This command selects the operation mode of the PTCarPhone.

2.2.1 Test

This command is available via serial interface only.

Syntax

```
AT*PCHTB=?
```

Reply

```
*PCHTB: (0,1,2,3)
OK

// Operation mode 0 to 3 are available
```

2.2.2 Selecting an Operation Mode

This command is available via serial interface and SMS.

Syntax

```
AT*PCHTB=n
```

Parameter

```
n: Operation mode

// 0: No restrictions
// 1: Phone book entries cannot be copied from the SIM Card
// 2: Dialling and SMS are restricted to available phone book entries and emergency
// 3: Like "2" and incoming calls are only shown and can only be answered when the
number exists in the phone book.
```

Reply

```
OK

// Operation mode is selected.
```

Example

```
AT*PCHTB=0
OK
```

2.2.3 Query

This command is available via serial interface only.

Syntax

```
AT*PCHTB?
```

Reply

```
*PCHTB: x
OK

// x: Currently selected operation mode
```

Example

```
AT*PCHTB?
*PCHTB: 1
OK
```

2.3 Adding Entries to the Phone Book

This command adds entries to the phone book. Please note, that the length of an SMS is restricted to 480 characters, when using SMS. The components of an entry need to be separated by semicolon.

If the command for adding phone book entries is sent over a cable connection (serial interface) successively, the "OK" needs to be awaited.

2.3.1 Test

This command is available via serial interface only.

Syntax

```
AT*PSETITB=?
```

Reply

```
*PSETITB: 30;30;28;28;28;(0-1)(0-9)(0-9)(0-9)
OK

// Locations 1 to 5000 are available.
```

2.3.2 Set

This command is available via serial interface, SMS and USB (only if USB service interface is active).

Syntax

```
AT*PSETITB=surname;first name;number(work);number(mobile);number(home);fkkk
```

Parameter

```
surname: Surname of a phone book entry
first name: First name of a phone book entry
number (work): Phone number
number (mobile): Phone number
number (home): Phone number
fkkk characteristics: Enabling, speed dial (work), speed dial (mobile), speed dial
(home)
```

Reply

```
OK

// Phone book entry was added.
```

Example

```
AT*PSETITB=Doe;John;+4930123456;;0306546546;1000
OK
```

2.4 Delete Phone Book Entry

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PDELITB=index
```

Parameter

```
index:

// Index of the phonebook entry, which can be queried with the command AT*TITB
```

Reply

```
OK

// Phone book entry is deleted.
```

Example

```
AT*PDELITB =3
OK
```

Note
If an entry with a specific index is not available, an error is Output.

2.5 Edit Phone Book Entry

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PEDITITB=index;surname;first name;number(work);number(mobile); number(home);fkkk
```

Parameter

```
index: Index of the phonebook entry, which can be queried with the command AT*TITB
surname: Surname of a phone book entry
first name: First name of a phone book entry
number (work): Phone number
number (mobile): Phone number
number (home): Phone number
fkkk characteristics: Enabling, speed dial (work), speed dial (mobile), speed dial
(home)
```

Reply

```
OK

// Phone book entry was edited.
```

Example

```
AT*PSETITB=3;Doe;John;+4930123456;;0306546546;1000
OK
```

Note
After editing, the phonebook is resorted. The sort order is based on the last name. This means that the indexing of the list can change. If an entry with a specific index is not available, an error is Output.

2.6 Deleting the Phone Book

The entire phone book is deleted.

2.6.1 Test

This command is available via serial interface only.

Syntax

```
AT*PCLRITB=?
```

Reply

```
OK

// Command is available.
```

2.6.2 Deleting

This command is available via serial interface and SMS.

Syntax

```
AT*PCLRITB
```

Parameter

None

Reply

```
OK

// Phone book was deleted.
```

Example

```
AT*PCLRITB
OK
```

3 Queries

3.1 Querying the Phone Settings

With this command, all relevant settings of the PTCarPhone 5 are read out. The data are arranged in sets of parameters. Some parameters are read out only when configured, see below.

Parameter set 0 (*PCONF: 0):	Phone parameters, always read out
Parameter set 1 (*PCONF: 1):	Digital input/output, always read out
Parameter set 2 (*PCONF: 2):	Parameters of the handset connected to the interface I, only when connected
Parameter set 3 (*PCONF: 3):	Parameters of the handset connected to the interface II, only when connected
Parameter set 6 (*PCONF: 6):	Parameters of the clock
Parameter set 7 (*PCONF: 7):	Parameters of the FTP connection for configuration updates
Parameter set 8 (*PCONF: 8):	Parameters of the configured internet access
Parameter set 9 (*PCONF: 9):	Listing of extras (from software version 5.02.08)
Parameter set 10 (*PCONF: 10):	Device identifiers IMEI and IMSI

3.1.1 Test

This command is available via serial interface only.

Syntax

```
AT*PCONF=?
```

Reply

```
OK

// Command is available.
```

3.1.2 Query

This command is available via serial interface only.

Syntax

```
AT*PCONF?
```

Reply

```
*PCONF: 0, vt,ls,lt,ot,ac,rv,rt,sf,sb,cdk,cd,ba,pa,vfs,mt,fw
*PCONF: 1, vign,sign,sio1,mio1,sio2,mio2,sio3,mio3,sio4,mio4,sio5,mio5,sio6,mio6
*PCONF: 2, vshs1,tb1,vhs1
*PCONF: 3, vshs2,tb2,vhs2
*PCONF: 6, h,m,s,tf
*PCONF: 7, server IP, user, password, filename, pn, sm, cod
*PCONF: 9, Extras,Zustand
*PCONF: 8, provider, APN, login, password
*PCONF: 10, IMEI, IMSI
OK
```

Parameter set description

```
*PCONF: 0
vt: Software version text
ls: SIM language (numeric)
lt: Phone language
ot: Delay time in seconds
ac: Automatic answering (number of rings)
rv: Ringtone volume Level
rt: Ringtone Melody
sf: Saving an SMS message after sending
sb: Message alert tone
cdk: Total call Duration
cd: Last call Duration
ba: Operation mode
pa: PIN handling
vfs: Volume hands-free System
mt: Type GSM module
fw: Firmware GSM module

*PCONF: 1
vign: Virtual ignition on/off
sign: Status ignition on/off
sio1: Status of the digital input/output 1
mio1: Mode of the digital input/output 1
sio2: Status of the digital input/output 2
mio2: Mode of the digital input/output 2
sio3: Status of the digital input/output 3
mio3: Mode of the digital input/output 3
sio4: Status of the digital input/output 4
mio4: Mode of the digital input/output 4
sio5: Status of the digital input/output 5
mio5: Mode of the digital input/output 5
sio6: Status of the digital input/output 6
mio6: Mode of the digital input/output 6

*PCONF: 2
vshs1: Version text handset 1
tb1: Keypad tone handset 1
vhs1: Volume handset 1

*PCONF: 3
vshs2: Version text handset 2
tb2: Keypad tone handset 2
vhs2: Volume handset 2

*PCONF: 6
h: Hour
m: Minute
s: Second
tf: Time Format
```

```
*PCONF: 7
server IP: IP or URL of the servers, URL maximal 15 characters
user: User Name
password: Password
filename: File Name
pn: Own phone number
sm: Query mode (0 manual, 1 automatic)
cod: Waiting period for the configuration after the ignition was turned on, in minutes

*PCONF: 8
provider: Numeric provider name (MCC + MNC)
APN: APN, preset by the Provider
login: Login, preset by the Provider
password: Password, preset by the Provider

*PCONF: 9
Extras:     8 bit value for the unlocked extras; max. value 255
            Maximum amount of unlocked extras is 8
Zustand:    The 8 bit value indicates, whether an extra is turned on, or not;
            max. value 255

*PCONF: 10
IMEI: IMEI of the PTCarPhone
IMSI: IMSI of the SIM in use
```

Example

```
AT*PCONF?
*PCONF: 0,PTCarPhone 5 V.5.01.04 Oct 19 2015,0,0,10,0,1,13,0,1,11,0,0,1,2
*PCONF: 1,0,1,1,2,1,0,0,6,1,0,1,2,1,0
*PCONF: 2,HA59 V.01.14 Sep  7 2015,0,2
*PCONF: 6,10,50,14,24
*PCONF: 7,"123.123.123.123","hello","World","Config.txt","+49179345345",1,6
*PCONF: 8,"26201","internet.t-d1.de","t-d1","t-d1"
*PCONF: 9,3,1
*PCONF: 10,"357164042061344","262010050356378"
OK
```

3.2 Call Duration Query

This command queries the memory for the call duration.

3.2.1 Test

This command is available via serial interface only.

Syntax

```
AT*PCADUR=?
```

Reply

```
OK

// Command is available.
```

3.2.2 Query

This command is available via serial interface and SMS.

Syntax

```
AT*PCADUR?
```

Reply

```
*PCADUR: n,m
OK

// n: Total duration of all outgoing calls in seconds
// m: Duration of the last call in seconds, if still available (availability until
disconnecting the power supply)
```

Example

```
AT*PCADUR?
*PCADUR: 234,16
OK
```

3.3 Software Version Query

This command queries the software version information of the PTCarPhone.

3.3.1 Query

This command is available via serial interface only.

Syntax

```
AT*PGMR
```

Reply

```
Platform 6 …

// Version information
```

Example

```
AT*PGMR
Platform 6 V.6.01.1 Nov 17 2019
OK
```

4 Initialization Commands

4.1 Reset to Factory Default Settings

This command can only be sent via SMS and resets the PTCarPhone. All settings including the online password will be reset!

All settings on the device will be returned to original conditions.

4.1.1 Reset to Factory Defaults

This command is available via SMS only.

Syntax

```
AT*PRESET="opw"
```

Parameter

```
opw: Online Password
```

Reply

```
*PRESET:OK

// The device was reset.
```

Example

```
AT*PRESET="PEITEL"
*PRESET:OK
```

4.2 Changing the Online Password

The online password is used for identification when accessing the PTCarPhone via text message (SMS). Changing the online password generates a reply text message; see also 7.2 Acknowledgement for Changing the Online Password.

The default online password is composed of the last six digits of the IMEI number. The IMEI number can be located on the label of the PTCarPhone. For security reasons, we strongly recommend changing the online password.

4.2.1 Test

This command is available via serial interface only.

Syntax

```
AT*PPWD=?
```

Reply

```
*PPWD: 10,10
OK

// Maximum number of characters for the old and the new password, 10 characters each
```

4.2.2 Setting a New Online Password

This command is available via serial interface and SMS.

Syntax

```
AT*PPWD=opw,npw
```

Parameter

```
opw: Old password, still valid at this stage
npw: New password
```

Reply

```
OK

// The new password was accepted.
```

Example

```
AT*PPWD="Peitel","xyz"
OK
```

4.3 Changing the Device Code

The device code is used for identification when accessing some special functions of the PTCarPhone using the handset.

The factory setting of the device code is **0000**.

For security reasons we strongly recommend to change this pre-set device code.

4.3.1 Setting a new Device Code

This command is available via SMS only.

Syntax

```
AT*PCHDEVPW=opw,gpw
```

Parameter

```
opw: Online Password
gpw: New device code (maximum 8 digits)
```

Reply

```
OK

// The new device code was accepted.
```

Example

```
AT* PCHDEVPW ="Peitel","1234"
OK
```

4.4 Internet and FTP Configuration

The internet configuration is required for the internet access, which is used for example to download software updates.

For some providers and SIM cards, the configuration of the internet access data is done automatically.

The following parameter sets are available:

Parameter set 0 (*PGPRS: (0)): Internet provider

For some providers, internet access data are already available in the PTCarPhone. Additionally, it is possible to enter internet access data for one (1) more provider.

Parameter set 1 (*PGPRS: (1)): Automatic configuration

To be able to load configuration files automatically, FTP access data are entered here.

Parameter set 7 (*PGPRS: (7)): List of stored internet access data

Command to control the internet access data in the device. The command allows to query all access data. If the internet access is initialized, the query command returns the current parameter set, otherwise, it will return the variable parameter set.

Index "0" returns the access data of the additionally stored provider.

4.4.1 Test

This command is available via serial interface only.

Syntax
AT*PGPRS=?

Reply

```
*PGPRS: (0),6,30,30,30      // Maximum length of each parameter
*PGPRS: (1),15,50,20,20
*PGPRS: (2),15,20,20,20
*PGPRS: (7)
OK
```

4.4.2 Set

This command is available via serial interface and SMS.

Syntax

```
AT*PGPRS=0,provider number,"APN","login","password"
AT*PGPRS=1,"server IP","file name","login","password"
```

Parameter

```
provider number:    Numeric provider ID (MNC+MCC)*
APN:                Access Point Name*
login:              User name for the access point*
password:           Password for the access point*

    * Please request these data from your provider

server IP:          IP address of the FTP servers in xxx.xxx.xxx.xxx format
file name:          File, where the configuration to be loaded is stored.
login:              User name for the FTP server
password:           Password for the FTP server
phone number:       Own phone number
```

Reply

```
OK

// Data are accepted.
```

Example

```
AT*PGPRS=0,26207,"internet","",""
OK
AT*PGPRS=1,"123.45.67.89","Config.cnf","user","#usr"
OK
```

4.4.3 Query

Index "0" shows the internet access data of the current provider. This command is available via serial interface only.

Syntax

```
AT*PGPRS?
```

Reply

```
*PGPRS: 0 ,provider number,"APN","login","password"
*PGPRS: 1,"server IP","file name","login","password ","phone number"
OK
```

Example

```
AT*PGPRS?
*PGPRS: 0,"26207","internet","",""
*PGPRS: 1,"123.45.67.89","Config.cnf","user","#usr",""
OK
```

4.4.4 Listing Stored Internet Access Data

If the entry for index 0 is empty, no additional provider was entered. This command is available via serial interface only.

Syntax

```
AT*PGPRS=7
```

Reply

```
List of internet access data
OK

// Index, provider number, APN, login, password
```

Example

```
*PGPRS: 7,0,"","","",""
*PGPRS: 7,1,"26201","internet.t-d1.de","t-d1","t-d1"
*PGPRS: 7,2,"26202","web.vodafone.de","",""
*PGPRS: 7,3,"26203","internet.eplus.de","eplus","gprs"
*PGPRS: 7,4,"26207","internet","",""
*PGPRS: 7,5,"20810","websfr","",""
*PGPRS: 7,6,"20820","mmsbouygtel.com","",""
*PGPRS: 7,7,"20801","internet-entreprise","orange","orange"
*PGPRS: 7,8,"27001","web.pt.lu","internet","internet"
*PGPRS: 7,9,"22803","internet","",""
*PGPRS: 7,10,"24001","online.telia.se","",""
*PGPRS: 7,11,"50501","telstra.datapack","Telstra",""
OK
```

4.5 Setting the Delay Timer

This command configures the delay timer of the PTCarPhone after the ignition was turned off.

4.5.1 Test

This command is available via serial interface only.

Syntax

```
AT*PDTIME=?
```

Reply

```
*PDTIME: (0..11)
OK
```

4.5.2 Setting the Delay Timer

This command is available via serial interface and SMS.

Syntax

```
AT*PDTIME=n
```

Parameter

```
n: Time

// 0: Turns off immediately
// 1: 5 minutes
// 2: 15 minutes
// 3: 1 hour
// 4: 2 hours
// 5: 4 hours
// 6: 8 hours
// 7: 12 hours
// 8: 1 day
// 9: 7 days
// 10: 10 days
// 11: 30 days
```

Reply

```
OK

// Delay timer was set.
```

Example

```
AT*PDTIME=2
OK

// Delay timer was set to 15 minutes.
```

4.5.3 Query

This command is available via serial interface only.

Syntax

```
AT*PDTIME?
```

Reply

```
*PDTIME: n
OK
```

Example

```
AT*PDTIME?
*PDTIME: 2
OK

// Delay timer is 15 minutes
```

4.6 Automatic Configuration

After the ignition was turning on, the FTP server will be automatically queried for a configuration file. This command is available via serial interface only.

4.6.1 Test

This command is available via serial interface only.

Syntax

```
AT*PACFG=?
```

Reply

```
*PACFG: (0,1),(1 - 255)
OK
```

4.6.2 Setting the Automatic Configuration

This command is available via serial interface and SMS.

Syntax

```
AT*PACFG=m,d
```

Parameter

```
m: Update mode

// 0:           A configuration update can only be started manually; a read
configuration file stays on the FTP server
// 1:           The update of the configuration happens after a waiting period after
the ignition was turned on; a read configuration file is deleted from the FTP server

d: Waiting period in minutes

// 0:           3 minutes (default)
// 1 to 255:    Waiting period in minutes
// If d is not given, the old value is kept
```

Reply

```
OK

// Settings were applied.
```

Example

```
AT*PACFG=1,5
OK

// Query for the configuration file after 5 minutes and deleting the read file from
the FTP server.
```

4.6.3 Query

This command is available via serial interface only.

Syntax

```
AT*PACFG?
```

Reply

```
*PACFG: n,d
OK
```

Example

```
AT*PACFG?
*PACFG: 1,5
OK

// The waiting period is 5 minutes and the read file is deleted from the FTP server.
```

4.7 Setting the Virtual Ignition

This command configures the virtual ignition of the PTCarPhone. When enabled and the engine starts running, an active ignition is simulated. It is recommended to enable the virtual ignition when the vehicle has no ignition wiring.

4.7.1 Test

This command is available via serial interface only.

Syntax

```
AT*PVIGN=?
```

Reply

```
*PVIGN: (0-1)
OK
```

4.7.2 Configuring the Virtual Ignition

This command is available via serial interface only.

Syntax

```
AT*PVIGN=n
```

Parameter

```
n: Mode

// 0: Virtual ignition disabled
// 1: Virtual ignition enabled
```

Reply

```
OK

// Configuration was accepted.
```

Example

```
AT*PVIGN=1
OK

// Virtual ignition was enabled.
```

4.7.3 Query

This command is available via serial interface only.

Syntax

```
AT*PVIGN?
```

Reply

```
*PVIGN: n
OK
```

Example

```
AT*PVIGN?
*PVIGN: 1
OK

// Virtual Ignition is enabled.
```

4.8 Setting the System Time

This command sets the system time of the PTCarPhone.

4.8.1 Setting the System Time

This command is available via serial interface only.

Syntax

```
AT*PSYSTIME="yy/mm/dd,hh:mm:ss"
```

Parameter

```
yy: Year        // (00-99)
mm: Month       // (01-12)
dd: Day         // (01-31)
hh: Hour        // (00-23)
mm: Minute      // (00-59)
ss: Second      // (00-59)
```

Reply

```
OK

// Setting was applied.
```

Example

```
AT*PSYSTIME="18/02/12,05:15:35"
OK
```

4.8.2 Query

This command is available via serial interface only.

Syntax

```
AT*PSYSTIME?
```

Reply

```
*PSYSTIME: "yy/mm/dd,hh:mm:ss"
OK
```

Example

```
AT*PSYSTIME?
*PSYSTIME: "18/02/12,17:03:20"
OK
```

5 Update Commands

5.1 Software Update

A software update for the PTCarPhone can be initiated by a command. The command starts an automatic update, unless the device is in use by a phone call at the time. If the PTCarPhone should download and install a software update, it is necessary, that the internet access data are configured correctly. See also 4.4 Internet and FTP Configuration.

5.1.1 Starting the Software Update

This command is available via serial interface and SMS.

Syntax

```
AT*PSWUPDATE
```

Reply

```
OK

// Update has started.
```

5.2 Unlocking Extras

When extras are purchased later, they need to be unlocked manually. This can be done using the PTCarPhone's menu. Another possibility would be to unlock extras via AT command.

5.2.1 Initiate Unlocking

This command is available via serial interface and SMS.

Syntax

```
AT*PCFUPDATE
```

Reply

```
OK

// Unlocking is initiated.
```

Example

```
AT*PCFUPDATE
OK
```

6 Control Commands

6.1 Switching Output

This syntax is only available, if the digital output is configured as a switch. See also 6.2.2 Setting the Hardware Configuration.

6.1.1 Test

This command is available via serial interface only.

Syntax

```
AT*PSOUT=?
```

Reply

```
*PSOUT: (1-6),(0-2)
OK

// Output 1-6; possible modes are 0, 1 and 2
```

6.1.2 Setting the Switching Output

This command is available via serial interface and SMS.

Syntax

```
AT*PSOUT=o,x
```

Parameter

```
o: Output

// 1-6

x: New switch mode

// 0: Output OFF
// 1: Output ON
// 2: Output ON for 5 seconds
```

Reply

```
OK

// Switching Output is set.
```

Example

```
AT*PSOUT=1,2
OK
```

If a set command sent by text message was successful, a confirmation text message is generated. See also 7.1 Status Message Switching Output.

Important
Only available when the output it set to mode 9, "Switching output".

6.1.3 Query

This command is available via serial interface only.

Syntax

```
AT*PSOUT?
```

Reply

```
*PSOUT: x1,x2,x3,x4,x5,x6
OK

// x: Current switch mode
```

Example

```
AT*PSOUT?
*PSOUT: 1,0,0,0,1,1
OK
```

6.2 I/O Configuration

Some components of the PTCarPhone hardware can be configured. This gives the possibility to integrate the device perfectly into the installation conditions. The following command is normally only necessary to be used at the initial operation.

6.2.1 Test

This command is available via serial interface only.

Syntax

```
AT*PIOSET=?
```

Example

```
*PIOSET: (1-6),(0-9)[,28][,320]
OK
```

6.2.2 Setting the Hardware Configuration

This command is available via serial interface and SMS.

Syntax

```
AT*PIOSET=io,mo[,cn][,txt]
```

Parameter

```
io: Input/output

// 1-6 Input/output

mo: Mode of the digital input/output

// 0: No functionality (default)
// 1: Input --> Panic key
// 2: Input --> Sending an SMS
// 3: Input --> Answering incoming calls or respectively to terminate an existing call
// 4: Input --> Increasing the volume
// 5: Input --> Reducing the volume
// 6: Output --> Ring tone signal
// 7: Output --> High if the phone is switched on
// 8: Output --> High if an active call exists
// 9: Output --> Switching output
// 10: Input --> Microphone mute

cn: Target phone number (optional)

// For sending SMS or respectively for calling, mode 1 and 2 only

txt: SMS text (optional)

// For sending an SMS in mode 1 and 2
```

Reply

```
OK

// Configuration was accepted.
```

Example

```
AT*PIOSET=6,1,
"+49179121454","Panic Alarm"
OK
```

> **Important**
> Mode 1 is only available for output "2" and "6"!
> **In mode 1, when no text parameter is configured, a call is initialized and therefore no SMS is sent.**

6.2.3 Position in Panic SMS

It is possible to include the information of the position in a panic SMS (Only available if "Hidden Emergency Call" is disabled).

Just add the placeholder **!position** into the SMS. In place of the placeholder the phone is adding a complete tracking set including date, time, latitude, longitude, GPS-fix, quality, speed and direction.

For devices without GPS, the text **NO GPS DEVICE** is inserted. If a GPS device does not have a valid position, the text **NO GPS POSITION** is inserted.

Example: The original text

> **Alarm position: !position license plate XYZ**

generates the SMS

> **Alarm position: 16.03.31 17:21:15 52.3081, ... license plate XYZ**

If only the position shall be transmitted, only the placeholder is entered.

6.2.4 Query

This command is available via serial interface only.

Syntax

```
AT*PIOSET?
```

Reply

```
*PIOSET=io1,mo[,cn][,txt]
*PIOSET=io2,mo[,cn][,txt]
*PIOSET=io3,mo[,cn][,txt]
*PIOSET=io4,mo[,cn][,txt]
*PIOSET=io5,mo[,cn][,txt]
*PIOSET=io6,mo[,cn][,txt]
OK
```

Example

```
AT*PIOSET?
*PIOSET: 1,1,"01792345345","Panic Alarm"
*PIOSET: 2,0,"",""
*PIOSET: 3,2,"+4917665465","Test Message"
*PIOSET: 4,4, "",""
*PIOSET: 5,5, "",""
*PIOSET: 6,9, "",""
OK
```

7 Messages

7.1 Status Message Switching Output

This text message reply is generated and sent when the switching output was set by text message (see also 6.1.2 Setting the Switching Output).

This message is sent by SMS only.

Message

```
*PSOUT:o,x
```

Parameter

```
o: Output

// 1-6

x: Switch mode

// 0: Output OFF
// 1: Output ON
// 2: 5 seconds ON
```

7.2 Acknowledgement for Changing the Online Password

This text message reply is generated and sent when a new online password was set by text message (see also 4.2.2 Setting a New Online Password).

This message is sent by SMS only.

Message

```
*PPWD: x
```

Parameter

```
x: Status

// 0: Change refused
// 1: Password was changed successfully
```

7.3 Position Message

This message is the reply on a positioning request. This message is sent by SMS or over the serial interface.

Message

```
*PGETPOS:timestamp,latitude,longitude,sc,hdop,speed,course
```

Parameter

```
timestamp: jj.mm.tt hh:mm:ss

// jj: Year
// mm: Month
// tt: Day
// hh: Hour
// mm: Minute
// ss: Second

latitude: x.xxxx

// Latitude, 4 decimal places

longitude: x.xxxx

// Longitude, 4 decimal places

sc: cc

// Status "NA" or "2D" or "3D"

hdop: x.xx

// HDOP, 2 decimal places

speed: x.xx

// Speed in m/s, 2 decimal places

course: x

// Course in degrees
```

Example

```
*PGETPOS: 08.07.23 18:37:10,52.9784,14.1226,3D,3.00,0.03,98
OK
```

8 Commands for the Positioning Feature

If the PTCarPhone is equipped with a GPS receiver, commands for positioning are available. These commands allow positioning on request. For requests by text message, the reply is only sent to the phone number of the originator of the command.

8.1 Position Query

This command requests the current position. Every query generates one reply containing the current position.

8.1.1 Test

This command is available via serial interface only.

Syntax

```
AT*PGETPOS=?
```

Reply

```
OK

// Command is available

ERROR

// There is no GPS receiver present
```

8.1.2 Position Query

This command is available via serial interface and SMS.

Syntax

```
AT*PGETPOS
```

Parameter

None

Reply

```
Position notification
OK

//(see 7.3 Position Message)
```

See 7.3 Position Message

Example

```
AT*PGETPOS
PGETPOS: 0.....
OK
```

9 Configurations

9.1 Volume

The following commands are used to set and read out the volume parameters.

9.1.1 Query

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PSETVOL?
```

Reply

```
*PSETVOL: a,b,c,d
OK

// a: Handset 1 Vol 0-6
// b: Handset 2 Vol 0-6
// c: Handsfree Vol 0-6
// d: Ringtone Vol 0-6
```

Example

```
AT*PSETVOL?
* PSETVOL: 5,2,1,1
OK
```

9.1.2 Setting the Volume

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PSETVOL=a,b,c,d
```

Parameter

```
a,b,c,d

// a: Handset 1 Vol 0-6
// b: Handset 2 Vol 0-6
// c: Handsfree Vol 0-6
// d: Ringtone Vol 0-6
```

Reply

```
OK

// Volume was set.
```

Example

```
AT*PSETVOL=1,3,2,6
OK
```

9.1.3 Increasing and Decreasing the Volume during a Call

The following commands are used to increase and decrease the volume during a call.

9.1.3.1 Increasing the Volume

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PVOLUP
```

Reply

```
+PVOL: m,n
OK

// m=1 Handset 1
// m=2 Handset 2
// m=3 Handsfree
// n=0-6 Volume
```

Example

```
AT*PVOLUP
+PVOL: 3,1
OK
```

9.1.3.2 Decreasing the Volume

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT* PVOLDOWN
```

Reply

```
+PVOL: m,n
OK

// m=1 Handset 1
// m=2 Handset 2
// m=3 Handsfree
// n=0-6 Volume
```

Example

```
AT*PVOLDOWN
+PVOL: 3,1
OK
```

9.2 Power Down

The following command puts the PTCarPhone [device] into standby mode. Waking up of the PTCarPhone is done via the ON / OFF key of the handsets, via ignition and the available inputs (inputs "2" and "6").

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PSHDN
```

Reply

```
OK

// Device is put into standby.
```

Example

```
AT*PSHDN
OK
```

9.3 Get SIM Pin State

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT+CPIN?
```

Reply

```
+CPIN: <code>
OK

// READY - Module is not pending for any password
// SIM PIN - Module is waiting SIM PIN to be given
// SIM PUK - Module is waiting SIM PUK to be given
```

Example

```
AT*CPIN?
+CPIN: READY
OK
```

9.4 Set SIM + PUK Pin

9.4.1 Set SIM Pin

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT+CPIN=<pin>
```

Parameter

```
<pin>

// string type value
```

Reply

```
OK

// SIM pin was set.
```

```
AT*CPIN=0000
OK
```

> **Note**
> If the error "+CME ERROR: 16" occurs after entering the pin, the pin input was wrong.
> If the error "+CME ERROR: 12" occurs after entering the pin, the pin input was wrong and the PUK is required.

9.4.2 Set PUK Pin

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT+CPIN=<puk>,<newpin>
```

Parameter

```
<puk>

// string type value

<newpin>

// string type value. Maximum length 8 digits.
```

Example

```
AT+CPIN=12345678,0000
OK
```

9.5 Mute or Unmute Microphone

Mutes or unmutes the microphone during a call. This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PMUTE=a
```

Parameter

```
a

// a=1 Mute
// a=0 Unmute
```

Reply

```
OK

// Microphone was muted or unmuted.
```

Example

```
AT*PMUTE=1
OK
```

9.6 Call Handover

Passes an active call to another device (handset 1 or handset 2). This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PCALLHANDOVER=a
```

Parameter

a

```
// a=1 Handset 1
// a=2 Handset 2
```

Reply

OK

```
// Call was handed over.
```

Example

```
AT*PCALLHANDOVER=1
OK
```

Please consider the following
If I trigger a call handover to the handset 1, then all display elements and acoustic signals for this handset are activated.
At the same time, a message is issued via the serial interface (also USB) to signal that the handset is ringing.
+PRING: 1 à every 5 seconds
+PRING: 1
…

If the call is accepted, the following message appears:
+PRING: 0

If the call is not answered after 5 rings, the call is automatically returned to the trigger and the following message is sent:
+PRING: 2

If the call is aborted during the handover, this is notified via the call indication (ECAM).
àOn the handset, the call handover can be triggered by pressing the right soft key "intern".

Then the following message is output as a ring indication on the serial interface (also USB):
+PRING: 1

Call acceptance takes place with an external device with the command:
AT*PCALLATA

9.7 Switch Incognito Modes On/Off

In incognito mode, calls are made without passing on the phone number to the receiving device.

9.7.1 Read Incognito Mode

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT+CLIR?
```

Reply

```
+CLIR: a,b
OK

// <a> - facility status on the Mobile
    // 0 - CLIR facility according to CLIR service network status
    // 1 - CLIR facility active (CLI not sent)
    // 2 - CLIR facility not active (CLI sent)

// <b> - facility status on the Network
    // 0 - CLIR service not provisioned
    // 1 - CLIR service provisioned permanently
    // 2 - unknown (e.g. no network present, etc.)
    // 3 - CLI temporary mode presentation restricted
    // 4 - CLI temporary mode presentation allowed
```

Example

```
AT+CLIR?
+CLIR: 2,4
OK
```

9.7.2 Set Incognito Mode

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT+CLIR=a
```

Parameter

```
a

// <a> - facility status on the Mobile
    // 0 - CLIR facility according to CLIR service network status
    // 1 - CLIR facility active (CLI not sent)
    // 2 - CLIR facility not active (CLI sent)
```

Reply

```
OK

// Incognito mode was set.
```

Example

```
AT+CLIR=1
OK

// Incognito On

AT+CLIR=2
OK

// Incognito Off
```

9.8 Set WLAN Access Point

These commands are used to set up the WLAN access point.

9.8.1 Test

This command is available via serial interface only.

Syntax

```
AT*PSETWLANAP=?
```

Reply

```
*PSETWLANAP: 32,64,(0,b,g,n2,n5,ac)
OK

// The maximum string length of the SSID and security key and the available WLAN modes
are shown.
```

9.8.2 Setting the Access Point

This command is available via serial interface only.

Syntax

```
AT* PSETWLANAP="opw","s","k",m
```

Parameter

```
opw: Online password

s: SSID Name

// SSID may only contain letters and numbers! Special characters are not allowed!

k: Key

// Key may only contain letters and numbers! Special characters are not allowed!

m: WLAN Mode

// 0=WLAN off
// b=802.11b
// g=802.11g
// n2=802.11n 2.4 GHz
// n5=802.11n 5 GHz
// ac=802.11ac
```

Note
For legal reasons, the n5 and ac modes are not available in the European PTCarPhone versions!

Reply

```
OK

// Access Point has been set
```

Example

```
AT* PSETWLANAP="465789","QSoftAP","1234567890",n2
OK
```

9.8.3 Query

This command is available via serial interface only.

Syntax

```
AT*PGETWLANAP="opw"
```

Parameter

```
opw:   Online password
```

Reply

```
*PGETWLANAP: s,k,m
OK

// s: SSID Name
// k: Key
// m: WLAN Mode
        // 0=WLAN off,
        // b=802.11b,
        // g=802.11g,
        // n2=802.11n 2.4 GHz,
        // n5=802.11n 5 GHz,
        // ac=802.11ac
```

Note
For legal reasons, the n5 and ac modes are not available in the European PTCarPhone versions!

Example

```
AT*PGETWLANAP=”465789”
*PGETWLANAP: QSoftAP,1234567890,n2
OK
```

9.9 Selecting the Network Technology

In areas with bad reception, it might be necessary to select one specific network technology.

9.9.1 Set Network Technology Mode

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT+WS46=a
```

Parameter

```
a:    network technology

// 12=2G network
// 22=3G network
// 25=Automatic network technology (2G, 3G, 4G)
```

Reply

```
OK
```

10 Direct Calls

10.1 Start a Call with Number

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PCALLATD=n
```

Parameter

```
n
// n = Phone number
```

Reply

```
OK

// A call was started.
```

Example

```
AT*PCALLATD=+4915324324321
OK
```

10.2 End or Reject a Call

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PCALLATH
```

Reply

```
AT*PCALLATH
OK
```

10.3 Accept an Incoming Call

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PCALLATA
```

Reply

```
OK

// Incoming call was accepted.
```

Example

```
AT*PCALLATA
OK
```

10.4 DTMF Tones

This command is available via serial interface and USB (only if USB service interface is active).

```
AT+VTS=<dtmfstring> [,duration]

// (See Telit command description)
```

Parameter

```
<dtmfstring>

// String of <dtmf>s, i.e. ASCII characters in the set (0-9),#,*,(A-D); it allows the
user to send a sequence of DTMF tones, each of them with a duration that was defined
through +VTD command.

<duration>

// Duration of a tone in 1/100 sec.; this parameter can be specified only if the
length of first parameter is just one ASCII character.
// 0 - a single DTMF tone will be transmitted for a duration depending on the network,
no matter what the current +VTD setting is.
// 1..255 - a single DTMF tone will be transmitted for a time <duration> (in 10 ms
multiples), no matter what the current +VTD setting is.
```

Note
This command operates in voice mode only (see +FCLASS).

Note
The character P does not correspond to any DTMF tone, but it is interpreted as a pause of 3 seconds between the preceding and succeeding DTMF string elements.

Reply

```
OK

// DTMF tone was sent.
```

Example

```
AT+VTS =1,10
OK
```

11 Call Lists

11.1 Get Call Lists

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PGETCALLLIST=n

// 1..7 sum of integers each representing a specific call list
```

Parameter

```
n: sum of call lists

// 1 = missed calls
// 2 = incoming calls
// 4 = outgoing calls
```

Reply

```
*PGETCALLLIST:a,b,c,d,e,f,g
OK

// a: List type
// b: Memory 1-10
// c: Last name
// d: First name
// e: Phone number
// f: Date/Time YYYY-MM-DD HH:MM:SS
// g: Unix timestamp in seconds from 1970
```

Example

```
AT*PGETCALLLIST=7
*PGETCALLLIST: "missed calls",1,""Schulze","Dieter"","+491792225122"",2019-04-16 15:14:
26,1555427666
*PGETCALLLIST: "incoming calls",1,"Mustermann","Max","+491792225122",2019-04-16 15:14:
26,1555427652
*PGETCALLLIST: "outgoing calls",1,"Mayer","Klaus","01792225122",2019-04-16 15:14:26,
1555427634
OK
```

11.2 Delete Call Lists

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PDELCALLLIST=n

// n: 1..7 sum of integers each representing a specific call list
```

Parameter

```
n: sum of call lists

// 1 = missed calls
// 2 = incoming calls
// 4 = outgoing calls
```

Reply

```
OK

// Call lists deleted.
```

Example

```
AT*PDELCALLLIST=7
OK
```

12 Sending & Receiving SMS (PDU)

12.1 Sending SMS

This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
AT*PSENDPDUSMS=PDU

// PDU length maximum 400 characters
```

Parameter

```
PDU

// The PDU shall be hexadecimal format (each octet of the PDU is given as two IRA
character long hexadecimal number) and given in one line.
```

> **Note**
> When the length octet of the SMSC address (given in the PDU) equals zero, the SMSC address should be set with command +CSCA (see Telit command description for the LE910C1/4); in this case the SMSC Type-of-Address octet shall not be present in the PDU.

Reply

```
> 0011010B811097225221F20000AD06D2B7B82CA703?6D2B7B82CA7030x1A
+CMGS: <mr>
OK

// <mr> - message reference number.
// The char "x1A" at the end is a system-generated character for terminating the
message.
```

> **Note**
> If message sending fails for some reason, an error code is reported (see Telit command description for the LE910C1/4).

Example

```
AT*PSENDPDUSMS=0011010B811097225221F20000AD06D2B7B82CA703
> 0011010B811097225221F20000AD06D2B7B82CA7030x1A
+CMGS: 90
OK
```

12.2 Reading SMS

All incoming messages can be read, if the API is enabled. This command is available via serial interface and USB (only if USB service interface is active).

Syntax

```
+CMT: <sender>,<length><CR><LF><pdu>
```

Parameter

```
<sender>:   If it is stored in the internal Telit directory.
<length>:   PDU length
<pdu>:      PDU message
```

Example

```
+CMT: "",24<CR><LF>
07919471060040490 40D91947146676872F30000914003310574800 4F4F29C0E<CR><LF>
```

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