

Com MD AD RD

Car Kit Bluetooth Portable (CK P BT)
Car Kit Bluetooth 75 (CK BT 75)
Car Kit Bluetooth SIM Access (CK SA)

AT Command List

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History

Ver.	Date (yy-mm-dd)	Name	Status	Changes
0.2	04-07-09	Ebert	In work	First draft based on CK Bluetooth (HKW600)
0.3	04-08-10	Ebert	In work	Included PoC related commands after meeting with Antonin Galtier (Comneon)
0.4	04-08-11	Ebert	In work	Moved AT+NREC from unused to used HFP commands Changed AT+BRSF=30 to AT+BRSF=31 Added new command to disable noise reduction / echo cancellation in cradle mode. Same functionality as existing Bluetooth command AT+NREC. Added new command to read / write the setting of the car kit menu item 'Car loudspeaker' Added new URC which indicates that the setting of the car kit menu item 'Car loudspeaker' has changed
0.5	04-08-20	Ebert	In work	Moved AT+VTS from unused to used HFP commands Added PoC URCs for 'session started', 'session suspended' and 'session stopped' after discussion with comneon PoC: Starting an ad-hoc session shall also be possible with a default group, not only with a single default user Added SMS related commands (AT^SMGO, AT+CNMI, AT+CPMS)
0.6	04-09-02	Ebert	In work	Added command to read currently selected audio parameter set ID (AT^SABD...)
0.7	04-09-06	Ebert	In work	Removed all cradle mode specific commands from the phone interface. Note that some of them may stay in this document because they are used in conjunction with the GSM module of the CK SIM Access. ATDL, ATE0, ATQ0, ATV1, AT+CGSN, AT+CIMI, AT+CLVL, AT+CMUT, AT^SNREC, AT^SVRA, ^SVRA

0.8	04-09-27	Ebert	In work	Corrected the syntax of the command to read ID of currently selected audio parameter set Added info text to the voice recogniton result URC and the corresponding on/off command.
0.9	04-12-13	Ebert	In review	PoC commands: Rephrased "Start ad-hoc session with defaul user / default group", i.e. removed "ad hoc"
1.0	05-01-14	Ebert	Released	Removed "New command to enable / disable voice recognition result" Removed the corresponding URC to the above named command. Removed "New command: Read PoC phone book" Released document

Introduction

Car Kit Bluetooth Portable (CKPBT) is a hands free unit for the cigarette lighter. It does only support connectivity via Bluetooth. It uses the Bluetooth Hands Free Profile (HFP) and the ATC commands specified within this profile. It also uses ATC commands not specified in the HFP to provide advanced functionality. Furthermore, CKPBT uses BT SyncProfile and/or SyncML (in parallel to the HFP) to synchronise address book contents. In the context of this document we will call this mode of operation "BT HFP Mode" (even if other BT profiles are involved). CKPBT is an ODM product.

Car Kit Bluetooth 75 (CK BT 75) is a fixed installation hands free unit. It uses the Bluetooth Hands Free Profile (HFP) and the ATC commands specified within this profile and also ATC commands not specified in the HFP to provide advanced functionality. Furthermore, CP BT 75 uses BT SyncProfile and/or SyncML (in parallel to the HFP) to synchronise address book contents.

Car Kit SIM Access (CK SA) is an upgrade of the CK BT 75. It provides all features of the CK BT 75 but additionally comprises a GSM module which can access the SIM card of a BT enabled mobile phone via the SIM Access Profile (SAP). The CK SA may need to interact with the mobile phone and also with the GSM module at the same time. It therefore has two ATC interfaces which – in case of SIM Access Mode – will be active concurrently. In HFP Mode only the ATC interface towards the mobile phone will be active.

AT Commands

Blue entries denote changes to previous version of this document.

Red entries denote extensions to existing commands or completely new commands.

Grey entries denotes that the requirement is TBC.

X: This command will be used in this mode of operation.

-: This command will not be used in this mode of operation.

Commands specified in Hands Free Profile						
Command	Usage	CK P BT	CK BT 75 & CK BT SA		CK BT SA	
		HFP Mode	Cradle Mode	HFP Mode	SA Mode	
					Phone Interface (HFP Mode)	GSM Module Interface
ATA	Accept incoming call	X	X	X	-	X
ATDdd..dd;	Dial number	X	X	X	-	X
AT+BLDN	Dial last number (only used if phone does not support LD or DC book) (BT specific command)	X	-	X	-	-

AT+BRSF=31	Bluetooth report and retrieve supported features. Report the following: Local ECNR: Not Supported, Three-Way-Calling Features: Supported, CLI Representation: Supported, Voice Recognition Activation: Supported, Remote Volume Control: Supported	X	-	X	-	-
AT+BVRA...	Enable / disable voice recognition (BT specific command). Command is not required if phone does not support voice recognition.	X	-	X	-	-
AT+CCWA...	Enable 'call waiting notification' URC	X	X	X	-	X
AT+CHLD=2	Handle waiting calls → Swap active / waiting / held call	X	X	X	-	X
AT+CHLD=?	Test command. Check availability of multi party call service.	X	X	X	-	X
AT+CHUP	End call, end call set up	X	X	X	-	X
AT+CIND=?	Retrieve mapping of indicators	X	X	X	X	X
AT+CIND?	Get current status of indicators (→ call status)	X	X	X	X	X
AT+CLIP=1	Enable CLIP	X	X	X	-	X
AT+CMER...	Enable indicator events (call status, ...)	X	X	X	X	X
AT+NREC	Disable Noise Reduction and Echo Cancellation of mobile phone. A neutral parameter set has to be selected.	X	X	X	X	-
AT+VGS	Send current speaker gain to mobile phone. (BT specific command)	X	-	X	-	-
AT+VTS	Standard ATC command. DTMF generation	X	X	X	-	X

URCs specified in Hands Free Profile						
Command	Usage					
OK		X	X	X	X	X
ERROR		X	X	X	X	X

RING	Incoming call URC. Handle incoming calls	X	X	X	-	X
+CCWA	Waiting call URC.	X	X	X	-	X
+CIEV...	Indicator event URC. Call handling. (Battery / network status)	X	X	X	X	X
+CLIP: "...	Display number of calling line.	X	X	X	-	X
+BVRA	Voice recognition termination URC. Voice recognition handling. URC is not required if phone does not support voice recognition.	X	X	X	X (in conjunction with 'remote result reporting')	X
+VGS	URC. Set speaker gain in car kit.	X	-	X	-	-
+BSIR	URC. In-band ringing tone settings of mobile phone have changed.	X	-	X	-	-

Commands NOT specified in Hands Free Profile						
Command	Usage					
ATE0	Switch off echo.	-	-	-	-	X
ATQ0	Display acknowledgements.	-	-	-	-	X
ATV1	Display acknowledgements as text (verbose mode).	-	-	-	-	X
AT+CGSN=?	Test availability of command CGSN	-	-	-	-	X
AT+CGSN	Get IMEI to identify phone for address book sync in cradle mode	-	-	-	-	X
AT+CIMI=?	Test availability of command CIMI	-	-	-	-	X
AT+CIMI	Get IMSI to identify SIM card for phone book 'sync' in cradle mode	-	-	-	-	X
AT+CLCC=?	CLCC test command	X	X	X	-	X
AT+CLCC	Read number and name of current call.	X	X	X	-	X
AT+CLVL=?	Check availability of command and volume level range	-	-	-	-	X
AT+CLVL?	Check current volume level	-	-	-	-	X
AT+CLVL=<level>	Set new volume level	-	-	-	-	X
AT+CMUT=?	Check availability of mute command (cradle mode)	-	-	-	-	X
AT+CMUT?	Check current state of uplink mute (cradle mode)	-	-	-	-	X

AT+CMUT=x	Set state of uplink mute (cradle mode)	-	-	-	-	X
AT+CNMI=?	Check availability of CNMI	X	X	X	-	X
AT+CNMI=1,1,0,0,1	Enable new SMS indication	X	X	X	-	X
AT+CPIN=?	Check PIN status	-	-	-	-	X
AT+CPIN=nnnn	Enter PIN	-	-	-	-	X
AT+CPMS	Select preferred message storage. Only used for GSM module to avoid that incoming SMS are stored in the ME memory of the module	-	-	-	-	X
AT+CPBS=?	Test command. Check which books are available	X	X	X	X	X
AT+CPBS?	Read the currently selected phone book storage and the usage status. The response shall comprise the parameters <used> and <total>.	X	X	X	X	X
AT+CPBS="DC"	Select the DC (dialed call) phone book.	X	X	X	X	X
AT+CPBS="LD"	Select the LD (last dialed) phone book.	X	X	X	X	X
AT+CPBS="MC"	Select the MC (missed calls) phone book.	X	X	X	X	X
AT+CPBS="RC"	Select the RC (received calls) phone book	X	X	X	X	X
AT+CPBS="SM"	Select the SIM phone book.	X	X	X	X	X
AT+CPBR=?	Check the valid range of book indexes (including empty ones)	X	X	X	X	X
AT+CPBR=x,y	Read entries of the selected phone book (DC, LD, MC, RC, SM)	X	X	X	X	X
AT+CSCS=?	Get list of available character sets.	X	X	X	X	X
AT+CSCS="GSM"	Activate character set GSM	X	X	X	X	X
AT+CSCS="UCS2"	Activate character set UCS2	X	X	X	X	X
AT+COPS?	Read current network operator	X	X	X	-	X
AT^SABD=2,"ID"	Write accessory ID, type (= car kit)	X	-	X	X	-
AT^SABD=2,"ID,00,2,<ID_string>"	Write SW version	X	-	X	X	-

AT^SABD=2,"ID,02,1"	Read ID of currently selected audio parameter set	X	-	-	-	-
AT^SDBR=?	Get number of address book entries	X	X	X	X	X
AT^SDBR=x	Get address book entry with index x.	X	X	X	X	X
AT^SPBA=?	'Get current default book' test command	X	X	X	-	-
AT^SPBA?	Get current default book (Is address book or phone book active?)	X	X	X	-	-
AT^SPBG=?	Get number of sorted phone book entries	X	X	X	X	X
AT^SPBG=x	Get sorted phone book entry with index x.	X	X	X	X	X
AT^SPBS=?	SPBS test command	X	X	X	X	X
AT^SPBS="CS"	(Re-)select "common sorted" phone book as this is not possible with AT+CPBS...	X	X	X	X	X
AT^SMGO=1	SMS storage overflow indication	X	X	X	-	X
AT^SPIC	Get PIN counter	-	-	-	-	X
AT^SSET	Enable ^SSIM_READY URC	-	-	-	-	X
New command to read / write the setting of the car kit menu item 'Car loudspeaker'	Read / write car kit menu item 'Car loudspeaker'	-	X	X	X	-
New command to enable / disable voice recognition result URC. Syntax to be defined by Comneon	Enable / disable voice recognition result URC. The URC shall contain the recognition result (i.e. the phone number that corresponds to the recognized voice tag). URC must be available while phone is in SIM access mode. Only required if phone supports voice recognition.	-	-	-	X	-
New PoC command (mandatory)	Accept Incoming Session	X	X	X	-	-
New PoC command (mandatory)	Reject incoming session	X	X	X	-	-
New PoC command (mandatory)	Leave / End Session	X	X	X	-	-
New PoC command (mandatory)	Request right to speak	X	X	X	-	-
New PoC command (mandatory)	Release right to speak	X	X	X	-	-
New PoC command (mandatory)	Start session with default user / default group	X	X	X	-	-

New PoC command (mandatory)	Get session info (a command similar to C LCC). For every participant: - status (inviting, connecting, connected, speaking, ...) - name - URI - URI type - ID - others?	X	X	X	-	-
New PoC command (TBC)	Read PoC phone book	X	X	X	-	-
New PoC command (TBC)	Start PoC session with any group / person	X	X	X	-	-
New PoC command (TBC)	Get PoC service status (online / offline)	X	X	X	-	-

URCs NOT specified in Hands Free Profile						
BUSY		X	X	X	-	X
NO_DIALTONE		X	X	X	-	X
NO_CARRIER		X	X	X	-	X
^SSIM_READY	SIM data is ready for usage	-	-	-	-	X
^SMGO: x	SMS storage overflow indication	X	X	X	-	X
New URC	Indication that item 'Car loudspeaker' in the car kit menu has been changed by the user.	-	X	X	X	-
New voice recognition URC. Syntax to be defined by Comneon. (TBC)	If enabled, this URC shall send the result of a voice recognition (i.e. the phone number that corresponds to the recognized voice tag). URC must be available while phone is in SIM access mode. Only required if phone supports voice recognition.	-	-	-	X	-
New PoC URC (mandatory)	Session invitation (sender name, sender URI)	X	X	X	-	-
New PoC URC (mandatory)	Session started	X	X	X	-	-
New PoC URC (mandatory)	Session suspended	X	X	X	-	-
New PoC URC (mandatory)	Session stopped	X	X	X	-	-
New PoC URC (TBC)	Right to speak status	X	X	X	-	-

New PoC URC (TBC)	Session info (status (something like 'inviting', 'connected', 'speaking', ...), participant name, participant URI, ID?, URI type?) → whenever session state changes	X	X	X	-	-
New PoC URC (TBC)	PoC service status (online / offline)	X	X	X	-	-

	Unused commands of Handsfree Profile					
Command	Usage					
AT+BINP	Connect a telephone number to a voice tag. (BT specific command)	-	-			
ATD>nnn;	Standard ATC command. Memory dialling. nnn (Dial the telephone number from the current telephone book location number nnn.)	-	-			
AT+VGM	Send current microphone gain to mobile phone. (BT specific command)	-	-			
		-	-			
+VGM	URC. Set microphone gain in car kit. (BT specific command)	-	-			