

LTE AT Command Guide

Pinnacle 100 Modem

Version 1.0

REVISION HISTORY

Version	Date	Notes	Contributors	Approver
1.0	15 April 2020	Initial release	Ryan Erickson	Matt Stergiou

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1 OVERVIEW

This guide describes a recommended minimum set of AT commands needed for LTE operation of the Pinnacle 100 modem. With these commands, you can connect to an LTE network and send IP data (TCP or UDP). Although there are many other available AT commands, this guide only lists the recommended one. For complete details on the commands in this guide and all other AT commands, the user should download the [HL7800 AT commands Interface Guide](#).

To operate the Pinnacle 100 modem with AT commands, the hosted AT interface firmware must be flashed onto the modem.

2 GENERAL COMMANDS

Table 1: General AT commands

Command	Description	Example
ATE	Enable echo	Disable echo: ATE0
AT&V	Display current configuration	Query all profiles: AT&V
AT&W	Write current configuration	Store profile 0: AT&W
AT&F	Restore factory settings	AT&F
AT+CGMI	Request manufacturer identification	AT+CGMI
AT+CGMM	Request model identification	AT+CGMM
AT+CGMR	Request revision identification	AT+CGMR
AT+CGSN	Request IMEI	AT+CGSN
AT+KGSN	Request product serial number and software version	Get serial number: AT+KGSN=3
AT+CMEE	Report mobile termination error	Enable +CME ERROR: <err> result codes: AT+CMEE=1

3 CONTROL AND STATUS COMMANDS

Table 2: Control and Status AT commands

Command	Description	Example
AT+CCLK	Real time clock	Query time: AT+CCLK?
AT+CCID	Request SIM card identification	AT+CCID?
AT+CFUN	Set phone functionality	Reboot HL7800: AT+CFUN=1,1
AT+KSREP	Mobile start-up reporting	Turn on +KSUP: <stat> notifications: AT+KSREP=1
AT+KCELLMEAS	Request network coverage information	AT+KCELLMEAS=0
AT+KSRAT	Set radio access technology	Set Cat-M1 mode: AT+KSRAT=0
AT+KBNDCFG	Set configured LTE band(s)	Query current config: AT+KBNDCFG?
AT+KBND?	Get active LTE band(s)	AT+KBND?
AT+COPS	Operator selection	Set to automatic: AT+COPS=0
AT+CEREG	EPS network registration status	Report status with PSM info: AT+CEREG=4

4 POWER CONTROL COMMANDS

Table 3: Power Control AT commands

Command	Description	Example
AT+CPOF	Power off	AT+CPOF
AT+KSLEEP	Power management control	Host controlled and allow hibernate: AT+KSLEEP=0,2,10
AT+CPSMS	Power saving mode setting	Enable PSM with TAU = 1 minute, active time = 30 seconds: AT+CPSMS=1,,,"10000010","00001111"
AT+CEDRXS	eDRX setting	Enable eDRX for Cat-M1 with 81.92 second timer: AT+CEDRXS=1,4,"0101"

5 PACKET DOMAIN AND CONNECTION COMMANDS

Table 4: Packet Domain and Connection AT commands

Command	Description	Example
AT+CGDCONT	Define PDP context (sets APN)	Set blank APN to get APN from carrier via the network: AT+CGDCONT=1,"IP", ""
AT+WPPP	PDP context authentication configuration (APN username and password)	Set APN username and password for PDP context 1: AT+WPPP=1,1,"username","password"
AT+KCNXCFG	GPRS connection configuration	Setup connection for PDP context 1: AT+KCNXCFG=1,"GPRS", ""
AT+CGCONTRDP	PDP context read dynamic parameter (Reads IP address)	Get IP address info for PDP context 1: AT+CGCONTRDP=1

6 TCP COMMANDS

Table 5: TCP AT commands

Command	Description	Example
AT+KTCPCFG	TCP connection configuration	See <i>How to Use TCP Commands</i> in the Appendix of the HL7800 AT Commands Interface Guide
AT+KTCPCNX	Start TCP connection	
+KTCP_IND	Notification: TCP status	
AT+KTCPSEND	Send data through a TCP connection	
+KTCP_DATA	Notification: Incoming data through a TCP connection	
AT+KTCPRCV	Receive data through a TCP connection	
AT+KTCPCLOSE	Close current TCP operation	
AT+KTCPDEL	Delete a configured TCP session	

7 UDP COMMANDS

Table 6: UDP AT commands

Command	Description	Example
AT+KUDPCFG	UDP connection configuration	See <i>How to Use UDP Commands</i> in the Appendix of the <i>HL7800 AT Commands Interface Guide</i>
+KUDP_IND	Notification: UDP status	
AT+KUDPSND	Send data through a UDP connection	
+KUDP_DATA	Notification: Incoming data through a UDP connection	
AT+KUDPRCV	Receive data through a UDP connection	
AT+KUDPCLOSE	Close current UDP operation	
AT+KUDPDEL	Delete a configured UDP session	

8 ADDITIONAL ASSISTANCE

Please contact your local sales representative or our support team for further assistance:

Laird Connectivity

Support Centre: <https://www.lairdconnect.com/resources/support>

Email: wireless.support@lairdconnectivity.com

Phone: Americas: +1-800-492-2320

Europe: +44-1628-858-940

Hong Kong: +852 2923 0610

Web: <https://www.lairdconnect.com/products>

Pinnacle 100 Modem product page: <https://www.lairdconnect.com/wireless-modules/cellular-solutions/pinnacle-100-modem>