User Manual

LTE-ACAT.5/ CAT. 6 Indoor CPE
DH-725

Version	V1.0
Date	June, 2018

Green Packet Berhad Company

1 Overview

A high-performance LTE Indoor CPE, DH-725 provides users with wireless and fixed broadband.

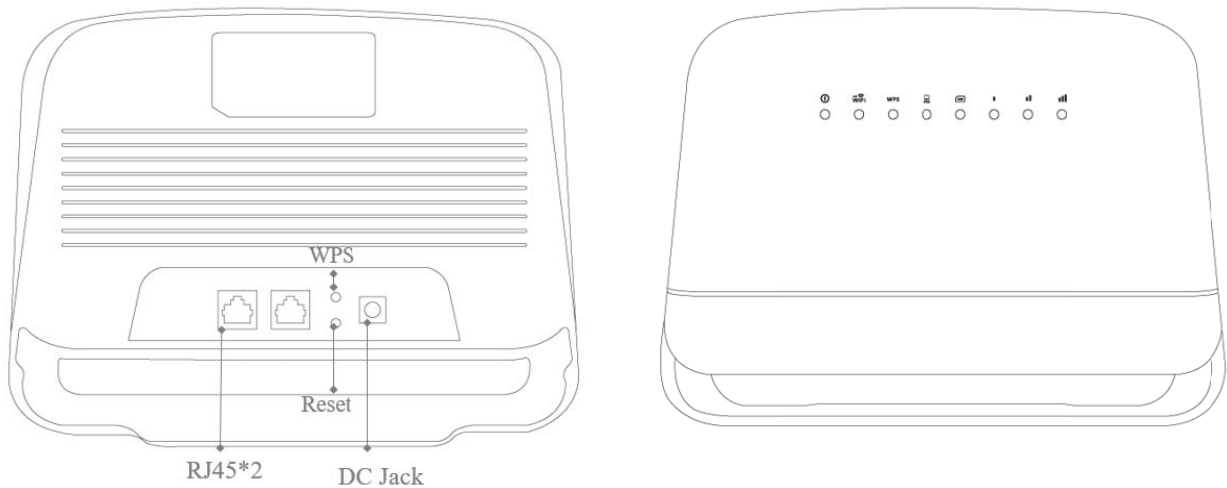## 2 Hardware Specifications

2.1 Basic Description

Feature	Description	Remarks
3GPP Release Version	Release 10/11	
UE Category	CAT.5, CAT. 6 Compliant	
RAM	1Gb (128MB)	LPDDR2
NAND Flash	2Gb (256MB)	
Host	GCT GDM7243QT	
Wi-Fi	2.4GHz	802.11 b/g/n Compliant
Ethernet LAN port	RJ-45 port*2 10/100/1000 auto-sensing, auto-MDIX	
RJ-11 POTS port	RJ-11 port*1	Optional feature
LED Indicators	Power/WiFi/WPS/Internet/SIM/Signal Strength	Signal strength 3 bars
Console	1.8V LVTTL signal	Pin header
Reset/Reboot button	Tact switch	In side box
USIM	1.8V/3.0V 2FF USIM	
LTE Antenna	Built-in 4x4	4x4 support in Cat.5
Power supply	Input: Universal range 100~240VAC Output: 12V/1A DC	

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2.2ID Design

1.1.1 Appearance Index

Index	Description
Dimension	250 (L)x 66 (W)x 180 (H)mm
Weight	440g
Color	Black

2.3 Interface and Button

2.4 LED Indicators

LED Indicators	Colour	Status	Description
Power	Blue	Steady On	Power On
		Off	Power Off
WiFi 2.4G	Green	Steady On	WiFiOn
		Blinking	WiFi Data Transmission
		Off	WiFi Off
WPS	Green	Blinking	WPS Enable
		Off	WPS Disable
Internet	Green	Steady On	Connected
		Off	No Internet Connected
		Blinking	Data Transmission
SIM	Green	Steady On	SIM Ready
		Off	No SIM or SIM Failure
		Blinking	Waiting for PIN/PUK

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Signal Strength	Green	RSRP>-100dB (Signal-I: on + Signal-II: on + Signal-III: on)	FW Upgrading (3 LED blinking)
		-120dB<RSRP≤-100dB	
		(Signal-I: on + Signal-II: on)	
		RSRP≤-120dB (Signal-I: on)	

2.5 RF Specifications

Feature	Capability				Comments
	Min	Typ	Max	Unit	
3GPP Standard	Comply with 3GPP Release 11				
Wi-Fi Frequency @ 2.4GHz	Ch 1~11				Channel 1 – 2412 MHz Channel 2 – 2417 MHz Channel 3 – 2422 MHz Channel 4 – 2427 MHz Channel 5 – 2432 MHz Channel 6 – 2437 MHz Channel 7 – 2442 MHz Channel 8 – 2447 MHz Channel 9 – 2452 MHz Channel 10 – 2457 MHz Channel 11 – 2462 MHz
2.4GHz Wi-Fi Channel BW		20/40		MHz	

2.6 Environment Specifications

No.	Feature	Capability				Remarks
		Min	Type	Max	units	
1	Operating temperature	0		40	^{o}C	
2	Storage temperature	-20		60	^{o}C	
3	Operating humidity	0		95	%	
4	Storage humidity	0		95	%	

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3Functional Specification

3.1 SW Specifications

LTE

Feature	Status	Comments
3GPP Release 10	Ready with Chipset	Detail LTE-A features will be defined with customer &eNB readiness
MIMO Support	Ready with Chipset	DL MIMO 2x2 & 4x2
UE Cat 6	Ready with Chipset	
1TX/2RX	Ready with Chipset	
Full band search	Ready with Chipset	
APN Configuration	Ready with Chipset	Multiple APN
SIM function (1.8V and 3V SIM and USIM card)	Ready with Chipset	
PIN/PUK Code	Ready with Chipset	
Networking		

Feature	Status	Remarks
IPv4	Ready	
IPv6	Ready	
IPv4/v6 dual stack	Ready	
NAT Mode	Ready	
Bridge Mode	Customization	
Tunnel Mode - GRE - L2TP / L2TP w/ IPsec - PPTP	Customization	
Router Mode	Ready	
DHCP Client in WAN	Ready	
DHCP Server in LAN	Ready	For NAT Mode, Supports 253 clients max.
NTP Client	Ready	
DNS Relay	Ready	For NAT Mode
DDNS Client	Ready	For NAT Mode
VPN Pass-through – IPSec/PPTP/L2TP	Ready	For NAT Mode No configuration on GUI
UPNP	Ready	
HTTP(s) Server	Ready	
Dynamic NAT/NAPT	Ready	For NAT Mode
ALG Support (FTP/SIP/etc…)	Ready	

3.2 Device Management (Indoor Unit)

Feature	Status	Remarks
Web Access (Remote/Local)	Ready	
SNMP Agent	Ready for IOT	SNMP v2c agent ready with upgrade function
TR069	Ready for IOT	
TR-143	Customization	Under developing
OMA-DM	N/A	
FOTA Firmware Upgrade	Ready	IOT with different network

3.4 Security

Feature	Status	Comments
User Name/Password configuration	Ready	
L2/L3 Firewall ●- Basic firewall ●- Port Forwarding ●- Port trigger ●- DMZ ●- Remote WAN Ping ●- Remote Web Access Control	Ready	

3.5 Wi-Fi Features

Feature	Status	Remarks
Network Name (SSID)	Ready	
SSID Broadcast Enable	Ready	
802.11 b/g/n Mode selection ●802.11b ●802.11g ●802.11n – 20/40MHz ●802.11b+g+n mode – This is the Factory Default option	Ready	
Security ● Open (Unsecure) ● WEP 64 – 5 ASCII characters or 10 HEX characters ● WEP 128 – 13 ASCII characters or 26 HEX characters ● WPA/WPA2 Personal / PSK (TKIP) – ASCII string, 8 to 63 characters in length ● WPA/WPA2 Personal / PSK (AES) – ASCII string, 8 to 63 characters in length	Ready	
Bandwidth selection b/g/n (20M, 40M, 20/40MHz)	Ready	

2.5 System/Debug Utility

Feature	Status	Comments
Software reset button	Ready	Reset to factory default
Configuration Wizard	Ready	Customized, need customers to provide the configuration procedure
Time Zone Configuration	Ready	80+ Countries/Cities selection
Networking Debug - IPerf - Ping - Traceroute	Ready	
Dual Image - Firmware Upgrade fail protection	Ready	Switchable
Firmware Verification	Ready	Use digital signature to verify the installed firmware
Multilanguage	Need more information	Customization feature
Diagnostic & Monitoring	Ready	Supported with special IPK w/ chipset DM tool

3. Appendix-Deliverable

Article Number	Content	Remark
DH-725	- 1 x Assembled product - 1x 12V1A Power adaptor - 1x Quick installer guide	Detail deliverables need to be defined by customer agreement

Installation Quick Guide

QIG (Can be customized)

Packaging

Brown Box, Device Label, Box Label

FCC Regulations:

- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

  —Reorient or relocate the receiving antenna.

  —Increase the separation between the equipment and receiver.

  —Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

  —Consult the dealer or an experienced radio/ TV technician for help.

- Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. To comply with FCC RF Exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for the transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Greenpacket will provide customerswith comprehensive technical support. Any problem please contact support department directly.	
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