



Pegasus Wireless Products, LLC

2214 Hyde Park Way, Duluth GA 30097-4948 Ph.: 770-495-0702 Fax: 775-743-4982

www.pegasuswirelessproducts.com

Email: Info@pegasuswirelessproducts.com

PWP-GW-L25-x

Gateway for IoT/M2M-optimized LTE cat 4



General Features		
Frequency Bands	PWP-GW-L25-V	LTE FDD: B4/B13
	PWP-GW-L25-A	LTE FDD: B2/B4/B12 WCDMA: B2/B4/B5
LTE Version	3GPP E-UTRA Release 11	
Bandwidth	1.4/3/5/10/15/20MHz	
Antenna	Supports Rx-diversity	
Supply Voltage Range	4.6-6.0v 5.0v Typ.	
Operation Temperature	-40°C ~ +85°C	
Dimensions	75.5mm × 31.0mm × 7.0mm	
Control via AT Commands	3GPP TS27.007 and enhanced AT Commands	

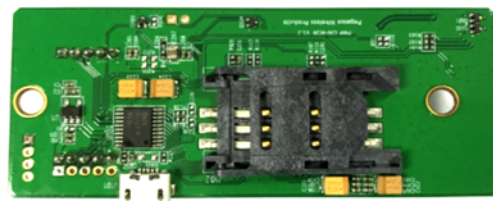
Specifications		
Data	LTE	LTE FDD: Max 150Mbps (DL) Max 50Mbps (UL) LTE TDD: Max 130Mbps (DL) Max 35Mbps (UL)
	DC-HSPA+	Max 42Mbps (DL) Max 5.76Mbps (UL)
	UMTS	Max 384Kbps (DL) Max 384Kbps (UL)
	TD-SCDMA	Max 4.2Mbps (DL) Max 2.2Mbps (UL)
	EDGE	Max 236.8Kbps (DL) Max 236.8Kbps (UL)
	GPRS	Max 85.6Kbps (DL) Max 85.6Kbps (UL)
Protocols	TCP/ UDP/ PPP/ FTP/ HTTP/ NTP/ PING/ QMI/ HTTPS*/ SMTP*/ MMS*/ FTPS*/ SMTP S*/ SSL*	

Interfaces	
USB 2.0 Device	High Speed, 480Mbps Micron USB
USIM	1.8V/3V
NETLIGHT	× 2, NET_STATUS and NET_MODE
UART	× 1, UART / 3.3V/1.8V
PWRKEY	Active High
Antenna	UFL. for Primary, Rx-diversity and GNSS

Customer Interface	
UART	(2) 5 PIN Headers
USB Cable	Micro USB Connector
USB Pin Header	4 pin

Special Features		
Drivers	USB Serial	Windows XP, Windows Vista, Windows 7, Windows 8/8.1, Windows 10, Linux 2.6 or later, Android 4.0/4.2/4.4/5.0/5.1/6.0
	RIL	Android 4.0/4.2/4.4/5.0/5.1/6.0
	NIDS	Windows XP, Windows Vista, Windows 7, Windows 8/8.1, Windows 10
	ECM	Linux 2.6 or later
	Gobinet	Linux 2.6 or later
	Linux qmi wwan	Linux 3.4 or later
DFOTA*	Delta firmware upgrade over the air	
GNSS	GPS/GLONASS/BeiDou/Galileo/QZSS	

Electrical Characteristics		
Output Power	Class 3 (23dBm±2dB) for LTE FDD Class 3 (23dBm±2dB) for LTE TDD Class 3 (24dBm +1/-3dB) for TD-SCDMA Class 3 (24dBm +1/-3dB) for UMTS Class E2 (27dBm ±3dB) for EDGE 850/900MHz Class E2 (26dBm +3/-4dB) for EDGE 1800/1900MHz Class 4 (33dBm ±2dB) for GSM 850/900MHz Class 1 (30dBm ±2dB) for GSM 1800/1900MHz	
Sensitivity	LTE B1: -101.5dBm (10M) LTE B20: -102.5dB (10M) LTE B2: -101dBm (10M) LTE B28: -102dBm (10M) LTE B3: -101.5dBm (10M) UMTS B1: -110dBm LTE B4: -101dBm (10M) UMTS B2: -110dBm LTE B5: -101dBm (10M) UMTS B4: -110dBm LTE B7: -99.5dBm (10M) UMTS B5: -110.5dBm LTE B8: -101dBm (10M) UMTS B8: -110.5dBm LTE B12: -101dBm (10M) GSM: -109dBm LTE B13: -100dBm (10M) DCS: -109dBm	





Pegasus Wireless Products, LLC
 2214 Hyde Park Way, Duluth GA 30097-4948 Ph.: 770-495-0702 Fax: 775-743-4982

www.pegasuswirelessproducts.com

Email: Info@pegasuswirelessproducts.com

PWP-GW-L25-x

Gateway for IoT/M2M-optimized LTE cat 4

Additional Support:

On board LNA for GPS/GNSS

On Board support for Active Antenna

Antenna Requirements

The following table shows the requirements on main antenna, Rx-diversity antenna and GNSS antenna.

GSM/WCDMA/LTE	GNSS
VSWR: ≤ 2 Gain (dBi): 1 Max input power (W): 50 Input impedance (ohm): 50 Polarization type: Vertical Cable insertion loss: $< 1\text{dB}$ (GSM850, GSM900, WCDMA B5/B6/B8/B19, LTE B5/B8/B12/B13/B18/B20/B26/B28) Cable insertion loss: $< 1.5\text{dB}$ (GSM1800, GSM1900, WCDMA B1/B2/B4, LTE B1/B2/B3/B4) Cable insertion loss $< 2\text{dB}$ (LTE B7/B38/B40/B41)	Frequency range: 1561~1615MHz Polarization: RHCP or linear VSWR: < 2 (Typ.) Passive antenna gain: $> 0\text{dBi}$ Active antenna noise figure: $< 1.5\text{dB}$ Active antenna gain: $> -2\text{dBi}$ Active antenna embedded LNA gain: 20dB (Typ.) Active antenna total gain: $> 18\text{dBi}$ (Typ.)

Antenna requirements must be met to utilize the PWP-GW-L25-X Certifications and to avoid the need to certify your equipment separately.

Connections and Connector PIN Definitions

Connector J204

1#	2#	3#	4#	5#
Vbus	Vbus	Pwk	pwd	GND

Connector J205

1#	2#	3#	4#	5#
DTR	TXD	RXD	VREF (output)	GND

Antenna LTE Cellular J104

Antenna of GPS/GNSS with LNA On Board J302

LED1 - RED	Main power indicating
LED2 - NONE	No features yet
LED3 - GREEN	Net work status

Antenna Diversity J303

	Voltage Range	Purpose
Vbus	4.2~6V(Typ. 5.0 V)	Main Power supply
PWK	0V~3.3V	Pull High to turn on Device
PWN	0V~3.3V	Pull High to turn off Device
VREF< OUTPUT>	1.8V or 3.3V	Reference Voltage level for MCU