



Pegasus Wireless Products, LLC

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PWP-GW-M96 [Universal 1 SKU]

Gateway for IoT/M2M-LTE Cat M1/Cat NB1



General Features		
Frequency Bands	PWP-GW-M96	LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28
		LTE TDD: B39 (for Cat.M1 only) GSM850/GSM900/DCS1800/PCS1900
LTE Version		3GPP E-UTRA Release 13
Bandwidth		1.08MHz/200KHz
Antenna		Supports for LTE & GNSS
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 TS27.007/3GPP TS 27.005 and Quectel enhanced AT Commands

Specifications		
Data	LTE	Cat.M1: Max 375kbps (DL) 375kbps(UL) Cat.NB1: Max 32kbps (DL) 70kbpsbps (UL) Supports SISO in DL Direction
	EDGE	Max 236.8Kbps (DL) Max 236.8Kbps (UL)
	GPRS	Max 85.6Kbps (DL) Max 85.6Kbps (UL)
Protocols		TCP/ UDP/ PPP/SSL/ FTP(S)/HTTP(S)/TLS/ PAP (Password Authentication Protocol) CHAP (Challenge Handshake Authentication Protocol)

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 LTE 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 2.6/3.x/4.1, Android 4.x/5.x/6.0
	RIL	Android 4.x/5.x/6.0
	NIDS	Windows XP, Windows Vista, Windows 7, Windows 8/8.1, Windows 10
	ECM	Linux 2.6/3.x/4.1
	Gobinet	Linux 2.6/3.x/4.1
	Linux qmi wwan	Linux 2.6/3.x(3.4 or later)/4.1
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 E2 (27dBm ±3dB) for GSM 850/900MHz 8-PSK
	Class E2 (26dBm ±3dB) for DCS1800/PCS1900MHz 8-PSK
	Class 4 (33dBm ±2dB) for GSM 850/900MHz
	Class 1 (30dBm ±2dB) for DCS1800/PCS 1900MHz

Sensitivity	BAND	SISO	3GPP
	LTE B1	-107.0dBm	-102.7dBm
	LTE B2	-106.7dBm	-100.3dBm
	LTE B3	-106.8dBm	-99.3dBm
	LTE B4	-106.9dBm	-102.3dBm
	LTE B5	-107.0dBm	-100.8dBm
	LTE B8	-107.3dBm	-99.8dBm
	LTE B12	-107.7dBm	-99.3dBm
	LTE B13	-106.5dBm	-99.3dBm
	LTE B18	-107.5dB	-102.3dB
	LTE B19	-107.1dB	-102.3dB
	LTE B20	-107.2dB	-99.8dB
	LTE B26	-107.1dB	-100.3dB
	LTE B28	-107.2dBm	-100.8dBm
	LTE B39	TBD	-103.0dB
	GSM850/GSM900	-109dBm	-102dBm
	DCS1800/PCS1900	-108.5dBm	-102.4dBm

Preliminary Specification

Agency Certs Pending



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Additional Support:

On board LNA for GPS/GNSS

On Board support for Active Antenna

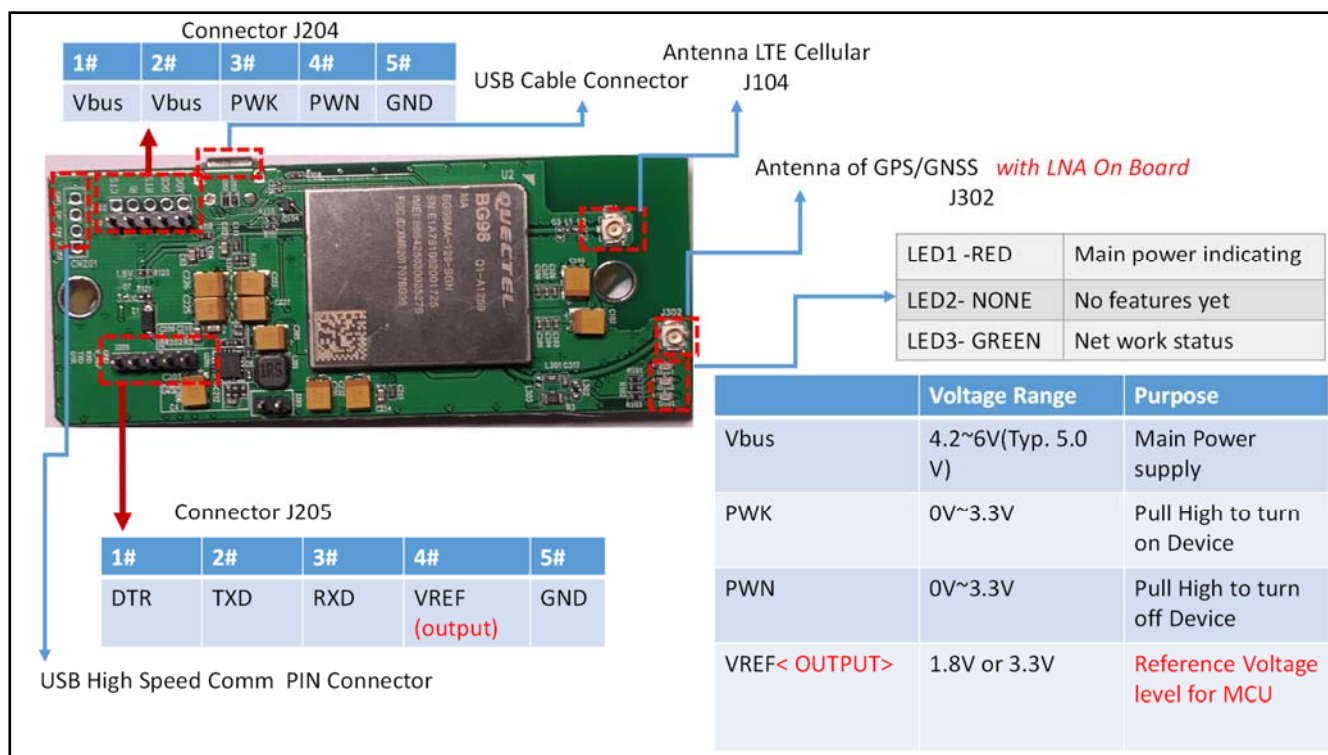
Antenna Requirements

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

LTE/GSM/DCS/PCS	GNSS
VSWR: ≤ 2 Gain (dBi): 1 Max input power (W): 50 Input impedance (ohm): 50 Polarization type: Vertical Cable insertion loss: <1dB (LTE B5/B8/B12/B13/B18/B19/B20/B26/B28 GSM850/GSM900) Cable insertion loss: <1.5dB (LTE B1/B2/B3/B4/B39/DCS1800, PCS1900)	Frequency range: 1561~1615MHz Polarization: RHCP or linear VSWR: <2 (Typ.) Passive antenna gain: >0dBi Active antenna noise figure: <1.5dB Active antenna gain: >-2dBi Active antenna embedded LNA gain: 20dB (Typ.) Active antenna total gain: >18dBi (Typ.)

Antenna requirements must be met to utilize the PWP-GW-M96 Certifications and to avoid the need to certify your equipment separately.

Connections and Connector PIN Definitions



Preliminary Specification

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