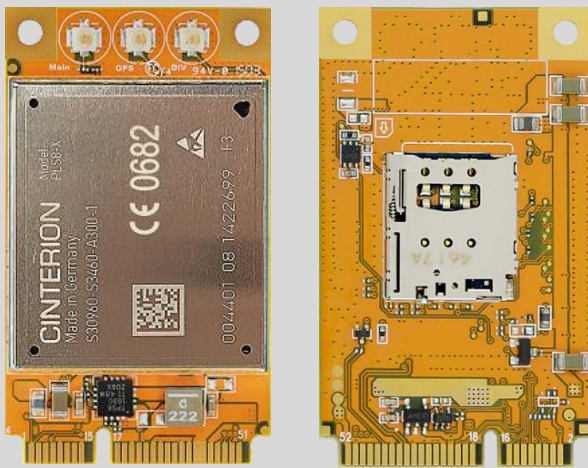




# Z-PLS8-X

## LTE Industrial Wireless Module



### Highlights

- 100Mbps maximum data rate (LTE Rel. 9)
- Mini PCI Express form factor
- USB 2.0 HS Interface up to 480 Mbps
- Qualcomm MDM9215 chipset
- 3X u.FL antenna connectors
- Multiple OS support
- GPS / GLONASS location solutions
- Perfect for M2M Applications
- Multiple carrier / regulatory approvals
- -40°C ~ 85°C operating temperature
- Optimized for low power consumption

### Optimized for the Fastest LTE Networks

The new Zcomax Z-PLS8-X industrial wireless module offers a smart solution for wireless connectivity today and in the future. With the latest LTE technology, the Z-PLS8-X is optimized for high bandwidth computing, enabling the highest available speeds for uploads and downloads in mobile networks.

This Z-PLS8 series of devices are based on the Mini PCI Express standard with a USB 2.0 interface. Supporting a wide variety of advanced air interface protocols, the Z-PLS8-X wireless module enables any mobile computing device to become an outstanding communication tool.

### High-Speed Connectivity for a Wide Range of Solutions

Perfectly suited for a wide array of network applications, including ruggedized mobile computing, security solutions, medical equipment, payment systems, video streaming, mobile routing, and many others.

### Location-Based Services Available

GNSS tracking lets you locate, monitor, and deploy location-based applications and services with model variants supporting GPS and GLONASS.

# Z-PLS8-X Specifications

Hardware			
Chipset	Qualcomm MDM9215		
Application Processor	ARMv7 Cortex A5		

Air Interface	LTE	UMTS / DC-HSPA+	GSM / GPRS / EDGE
3GPP Compliance	Release 9	Release 8	Release 98
UE Category	Category 3	DL Category 24 / UL Category 6	Class 12
Frequency	700 / 850 / AWS (1700 / 2100) / 1900 (MHz)	850 / AWS (1700 / 2100) / 1900 (MHz)	850 / 900 / 1800 / 1900 (MHz)
Bands	Bd17, Bd13, Bd5, Bd4, Bd2	Bd5, Bd4, Bd2	Quad Band
Data Speed (max)	100Mbps (DL) / 50Mbps (UL)	42.2Mbps (DL) / 5.76Mbps (UL)	237Kbps (DL) / 237Kbps (UL)
MIMO	2x2 Download	-	-
Channel Access	OFDMA / SC-FDMA / FDD	W-CDMA / FDD	TDMA / FDD

RF Characteristics	Category	Transmit Power	Class
Output power (Rel.99)	EGSM 850	33dBm $\pm$ 2dB	Class 4
	EGSM 900	33dBm $\pm$ 2dB	Class 4
	GSM 1800	30dBm $\pm$ 2dB	Class 1
	GSM 1900	30dBm $\pm$ 2dB	Class 1
	GSM 850 8-PSK	27dBm $\pm$ 3dB	Class E2
	GSM 900 8-PSK	27dBm $\pm$ 3dB	Class E2
	GSM 1800 8-PSK	26dBm +3/-4dB	Class E2
	GSM 1900 8-PSK	26dBm +3/-4dB	Class E2
	UMTS 850 WCDMA FDD Bd5	24dBm +1/-3dB	Class 3
	UMTS AWS WCDMA FDD Bd4	24dBm +1/-3dB	Class 3
UMTS 1900 WCDMA FDD Bd2	24dBm +1/-3dB	Class 3	
Output power (Rel.8)	LTE 1900, LTE FDD Bd2	23dBm $\pm$ 2dB	Class 3
	LTE AWS, LTE FDD Bd4	23dBm $\pm$ 2dB	Class 3
	LTE 850, LTE FDD Bd5	23dBm $\pm$ 2dB	Class 3
	LTE 700, LTE FDD Bd13	23dBm $\pm$ 2dB	Class 3
	LTE 700, LTE FDD Bd17	23dBm $\pm$ 2dB	Class 3

Antenna (Voice/Data)	LTE	UMTS / DC-HSPA+	GSM / GPRS / EDGE
Impedance	50 Ohm	50 Ohm	50 Ohm
Antenna Connector	u.FL	u.FL	u.FL
Antenna port 1	Main Antenna	Main Antenna	Main Antenna
Antenna port 2	MIMO (2x2) / Diversity	Rx Diversity Antenna	-

Interfaces / Form Factor	
Form Factor	Mini PCI Express
Host Interface	USB 2.0 High Speed (480Mbit/s)
UICC / SIM Electrical Interface	1.8V / 3V 4-Wire interface via Mini PCI Express
UICC / SIM Socket <b>(optional)</b>	Micro SIM, 1.8V / 3V
Audio <b>(optional)</b>	PCM digital interface
Reset	Signal line to reset module
Status	Signal line to indicate the network connectivity state
Dimensions	51.0mm (L) x 30.0mm (W) x 4.75mm (H)

# Z-PLS8-X Specifications

## GNSS Location Solution (Optional)

Technology	Qualcomm gpsOneGen8A with GLONASS
GNSS Receiver	GPS / GLONASS
Protocol	NMEA-0183 V2.3
GNSS Antenna	Active / Passive
Modes	Standalone GNSS / Assisted GNSS (CP E911, UP gpsOneXTRA™)

## Electrical

Voltage	3.3V +/- 0.3V
Current Consumption (LTE @ 850MHz)	Sleep mode: 3mA Idle (USB active): 95mA Data transfer: 740mA

## Audio (Optional)

Operating Mode	Master / Slave
Synchronization	Short / Long
Sample Rate	8kHz / 16kHz
Bit Clock	@8kHz sample rate: 128 / 256 / 512 / 2048kHz, @16kHz sample rate: 256 / 512 / 1024 / 4096kHz

## Control Options

AT Commands	Hayes, TS 27.007, TS 27.005 & proprietary API
-------------	---

## Driver Support

Windows	Windows 8, Windows 7, Windows Vista, Windows XP, Windows EC
Linux	CDC-ACM compliant mode
Android	RIL driver

## Regulatory & Safety Approvals

Environmental	RoHS and REACH compliant, EuP support
RF & Safety	R&TTE, GFC, CE, FCC, IC, PTCRB, UL
Carrier Certifications	AT&T, Verizon

## Environmental

Operating Temperature	-40 °C ~ 85°C (board temperature)
Storage Temperature	-40 °C ~ 95°C
Humidity	5 ~ 95% relative humidity non-condensing

## Ordering Information

Z-PLS8-X	Base module
Z-PLS8-X-G	Support for GPS
Z-PLS8-X-S	Integrated SIM card slot
Z-PLS8-X-V	Support for voice
Z-PLS8-X-GS	Support for GPS and Integrated SIM card slot
Z-PLS8-X-GSV	Support for GPS, Integrated Sim card slot and voice

Copyright © 2016 Zcomax Technologies Inc.

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without prior written permission