IEEE 802.11b/g Wireless USB Module in PCI mini card interface

Zcomax Technologies, Inc. has released their new line of Air Runner™ wireless PCI Minicards.

The XG-920 is their first 802.11g 54Mbps mini PCI modules that have been designed with the integration market in mind. With its low profile external antenna connector and small PCI mincard form, the XG-920 will fit into any design that supports the PCI-Express interface that is popular in many embedded systems today.

The XG-920 is a high performance module that exceeds both IEEE 802.11g and FCC regulatory requirements. With their well known experience in the module business you can rest assured that this product can help reduce the difficulties associated with EMC and antenna issues during integration.

The XG-920 module is a robust plug and play ready device that has support for Windows, Linux and MAC operating systems.

With an excellent price / performance ratio and the cost effective Atheros chipset, the XG-920 is a superb choice for any wireless application requiring enhanced connectivity and a small form factor.

XG-920 at a glance

- **802.11g compliant**

- **18 dBm Tx output Power**

- **-80 dBm Rx Sensitivity @ 11Mbps**

- **2x Hirose U.FL Antenna Connector**

- **PCI Express MiniCard (Via USB)**

- **FCC and ROHS compliant**

- **MAC / Baseband - Atheros ZD1211B**

- **Driver support – Windows, Linux and MAC customized drivers are available.**

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Physical Specification:

Host Interface	miniPCI-E (Via USB)
Dimensions (L x W x H)	50.95mm(L) * 30mm(W) *3.2mm (H)
Weight	< 35g

RF Specification:

Frequency Range (GHz)	North America:
802.11b/g	FCC: 2.412 ~ 2.462
	Europe ETSI: 2.412 ~ 2.472
	Japan 802.11b TELEC:2.412 ~ 2.484
	Japan 802.11g TELEC:2.412 ~ 2.472
Transmit power 802.11g	15dBm @ 54mbps data rate (max)
	17.5dBm @ 6mbps data rate (max)
Transmit power 802.11b	18dBm @11mbps data rate (max)
Receiver Sensitivity @ PER < 10% for 802.11g	54Mbps data rate -65dBm
Receiver Sensitivity @ PER < 8% for 802.11b	11Mbps data rate -80dBm

Antenna Connector Specification

Connector Type	Hirose U.FL 50Ω
Manufacturer	Hirose Electronic Co. Ltd.
Part Number	U.FL-R-SMT (CL331-0471-0-01)

Electrical Specification:

Supply Voltage	3.3 Vdc, +/- 5%
Supply Voltage Ripple	120mV (pp) max.
Power-on startup time	<600 ms
Sleep-to-receive startup time	<75 ms
Power consumption	TX: <400mA, RX: <350mA,

Environmental

Working Temperature	0 ~55ºC, 95% relative humidity (non-condensing)
Storage Temperature	-20 ~ 80ºC, 95% relative humidity (non-condensing)

Absolute Maximum Rating

Stress above those listed in Absolute Maximum Rating may cause permanent damage to the device. This is a stress only rating and operation of the device at these or any other conditions above those indicated in standard specifications is not implied.

Supply Voltage	3.7V
I/O Voltage	-0.5V ~ VCC+0.3V
Storage Temperature	-45 ~ +85ºC, 95% relative humidity (non-condensing)
Barometric Pressure	740 hPa ~ 1050 hPa

Software Specification

Supported Operating Systems	Win98 / 2000 /XP / XP 64-bit / Vista
	Linux 2.4 / 2.6
	Macintosh OS X (10.3 and up)
Security	WEP-64 / 128 bits
	WPA-PSK / WPA / WPA2-PSK / WPA

Warranty

12 Months limited warranty