

embedded | wireless



ZILANT™

USER MANUAL

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Zilant™ User Manual

ZMX-8100

ZUM-VG-371220113

www.embeddedwireless.com



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Revision History

Part No	Revision History	Date
ZPM-VG-366260911	Initial release of Zilant™ Product Manual	08/11
ZPM-VG-370190712	New Feature and user interface	07/12
ZUM-VG-371220113	Issued End User version. Updates to LED indicators and EW profile.	01/13
ZUM-VG-372220113	Antenna, LED Indicator, Safety measures	01/13

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WELCOME NOTE

Thank you for choosing the Zilant™ product.

The user manual describes how to install and configure the Zilant™ unit.



Wireless Safety and Compliance

Turn wireless off in areas where wireless use is forbidden or when it may cause interference or danger. Some specific situations are described below. In general, you should not use your Device with wireless turned on any place you are not allowed to use a cellular device.

Be Careful Around Other Electronic the Devices The Device generates, uses, and can radiate radio frequency (RF) energy and, if not used in accordance with its instructions, may cause harmful interference to radio communications and electronic equipment. External RF signals may affect improperly installed or inadequately shielded electronic operating systems, entertainment systems and personal medical devices. While most modern electronic equipment is shielded from external RF signals, if in doubt, check with the manufacturer. For personal medical devices (such as pacemakers and hearing aids), consult with your physician or the manufacturer to determine if they are adequately shielded from external RF signals.

Steps to Minimize Interference

If your Device does cause harmful interference to radio or television reception (which you can determine by turning your Device off and on), you can try to correct the interference by one or more of the following measures: reorient or relocate the receiving antenna for the radio or television; increase the separation between the radio or television and your Device; connect equipment and receivers to different outlets; or consult the radio or television manufacturer or an experienced radio/TV technician for help.

Where to Place the Device

The Device should be placed close to your wall power outlet and is normally more than 20cm from your body. . For example, the Device can be placed on the floor under a table.

Information regarding Exposure to Radio Frequency Energy Exposure to Radio Frequency Energy

Your Device is designed and manufactured not to exceed the emission limits for exposure to RF energy set by the Federal Communications Commission of the United States (FCC). It should be installed and operated with a minimum distance of 20 cm from your body. It must not be co-located or operating in conjunction with any other antenna or transmitter. Information on your Device is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/ea/> after searching on the FCC ID for your Device, which can be found on the back of the Device.



Regulatory Statements

The product must be set up and operated strictly according to manufacturer's instructions included in the user documentation provided with the product. All changes and modifications must be expressly approved by the manufacturer. Failure to do so may nullify the user's authority to operate the product. The manufacturer and its authorised resellers and distributors will assume no responsibility for damage from any failure to comply with these guidelines.

FCC Compliance Statement for Model Number ZMX8100, FCC ID: R42ZMX8100

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 Device 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. However, there is no guarantee that interference will not occur in a particular installation.

This Device meets the FCC Radio Frequency Emission Guidelines and is certified with the FCC as the FCC ID number found on the back of the Device.

Important: Changes or modifications to the Device not expressly authorized by Company could void your authority to operate the Device.

This product is listed by UL. Representative samples of this product have been evaluated by UL and meet applicable safety standards.



1.0 Introduction

EMBEDDED WIRELESS

Embedded Wireless builds next generation wireless products. The company is strongly committed to building successful products and have patented over 47 technologies.

Why choose products by Embedded Wireless

Embedded Wireless is a next-generation wireless telecommunications company offering connected healthcare and services for independent living, chronic disease management, elderly home care, personal wellness, intelligent automation, end-end 3G/4G enterprise solutions and telecommunications.

Embedded Wireless delivers custom-designed products and solutions with cutting-edge engineering capabilities in digital hardware, RF, ASIC/ FPGA, software and embedded software.

Visit the Website

Browse the Embedded Wireless website at www.embeddedwireless.com. The Website provides product information, data sheets and access to customer support.



PRODUCT SUPPORT

Contact your product reseller for product support.

Please provide the following information when contacting support services by email-

- Model number or product name
- Serial number of the product
- Firmware revision
- Any possible screenshots or visual feedback relating to the problem.

Check label at the bottom of the unit for more information.

2.0 INSPECT PRODUCT CHECKLIST

The product packaging should contain all the items listed below -

1. Zilant™ unit	x 1
2. Network Cable	x 1
3. Telephone Cable	x 1
4. Power Supply - External Adaptor 12Vdc, 36 Watts	x 1
5. Power Supply Cable	x 1

Currently Available Accessories:

Under FCC regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This radio transmitter (FCC ID: R42ZX8100) has been approved under FCC regulations to operate with the antenna type(s) listed below with the maximum permissible gain and required antenna impedance for the antenna type(s) indicated.

Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Antenna Details:

Frequency Band (MHz]: 824~960, 1710~2170

Impedance: 50 Ohm

Connector: SMA (M)

Polarization: Linear, Vertical

Peak Gain: 4dBi

Antenna Alpha Micro, AMC-ANTGS9C55TD-Ax 2

Missing Items?

If any of these items are incorrect, missing or damaged, contact your equipment supplier. Keep the original packing materials in case you need to return the unit for repairs.

3.0 HARDWARE CONFIGURATION

Form Factor

Dimensions: W132mm x L 270mm x H 43mm (5.2 in x 10.62 in x 1.69 in)

FRONT PANEL INTERFACE



Figure 1: Front Panel view

LED Features	
	Power LED
	BT
	ZigBee
	3G
	Wi-Fi
	WAN
	FE1
	FE2
	FE3
	FE4
	USB
	VoIP1
	VoIP2

Figure 2 – LED Table

BACK PANEL INTERFACE

The back of the unit has the following port connections:



Figure 3: Rear panel view

Feature	Description
Gigabit Ethernet	1x WAN port for backup to either ADSL or Cable Broadband Service
FE1-4LAN	4x LAN interfaces for wired connection to your PC or Laptop (not normally used)
USB	2x USB connectors, not normally used
VoIP	2x VOIP ports with RJ11 connectors
Power Supply	1x Power Supply Connector

Figure 4 – Back Panel Features

Check the Unit Label

Check label at the bottom of the unit to identify serial number.

4.0 INSTALLING THE UNIT

This section describes the steps to install the unit and connect to a power source.

4.1 CONNECT ANTENNA, INTERFACE PORTS AND POWER SUPPLY

4.1.1 CONNECT ANTENNA

1. Securely attach one (1) antenna to the ANT1 point on rear panel.
2. Securely attach the other antenna to the ANT2 point on rear panel.
3. Adjust the direction of both antennas and place router in a position best optimised to cover wireless network.



Figure 5: Antenna Connections

4.1.2 CONNECT POWER SUPPLY

1. Plug-in power supply cord to power outlet.
2. Attach the other end of power supply cord to the port marked “DC 12V” on rear panel.
3. Switch on main power outlet.
4. Turn on power switch at front panel.
5. POWER LED on the front panel will turn Solid Green to indicate power on.

5.0 DEVICE READINESS

The Zilant™ equipment provided by your dealer is pre-configured and ready to use.

GET ACQUAINTED WITH LED STATUS INDICATOR

Feature	LED	Action	Status Indicator
Power LED	Green	Solid	Unit is switched on
BT	OFF		
	Green	Solid	Wi-Fi is enabled
ZigBee	OFF		
	Green	Solid	Wi-Fi is enabled
3G	Red	Solid	3G card not detected
	Amber	Solid	3G card detected. SIM not registered with operator or No SIM card
	Green	Solid	SIM card successfully registered with operator
Wi-Fi	Red	Solid	Wi-Fi card not detected
	Amber	Solid	Wi-Fi card detected. Connectivity not enabled
	Green	BLINKING	Wi-Fi is enabled
WAN	OFF		Cable not connected
	Green	Solid	WAN cable is connected to the port
FE 1-4	OFF		Cable not connected
	Green	Solid	LAN cable is connected to the port
USB	OFF		
VOIP1-2	OFF		SIP Account not configured
	Red	Solid	SIP Account Configured. Registration with SIP Server Failed
	Green	Solid	Successfully Registered with SIP Server & Phone ON Hook
	Green	BLINKING	Phone OFF Hook (in USE)

Figure 6 – LED Table

6.0 RESTORE FACTORY DEFAULT SETTINGS

The Reset Button Feature

The “Reset button” is located on the bottom of the unit. It restores factory defaults settings and erases all configured parameters and passwords.

To reset

1. Keep unit powered on.
2. Hold down “Reset button”, release, and wait.
3. When unit restarts, it reverts to the factory default settings.
4. Now configure the unit with your specific settings.



7.0 LIMITED WARRANTY

In the event the product is found to be defective or not fit for the purpose it was designed, you can return the product as provided under the term and condition of the Warranty.

To claim your Warranty, return the product to the outlet you originally purchased it.

Please retain your original receipt for warranty/repair claims.

Our Warranty

Embedded Wireless guarantees this Product to be free from defects in material and workmanship at the time of its original purchase, and for a subsequent period of one (1) year.

If this product fails to operate under normal use and service, due to improper materials or workmanship, during the said Warranty period, EW, its agents, subsidiaries, authorized distributors, or Certified Service Centers will repair or replace the Product in accordance with the terms and conditions stipulated herein.

Conditions

1. The Warranty is only valid if accompanied by the original receipt issued to the original purchaser by EW or any retailer indicating the date of purchase and product serial number, when the product is submitted for repair or service.

EW reserves the right to refuse Warranty service if this information has been removed or altered subsequent to the original purchase of the Product from the retailer.

2. Once EW repairs or replaces the product, the repaired or replaced Product shall be covered by Warranty for the remaining time of the original warranty period or for ninety (90) days from the date of repair, whichever is longer. Repair or replacement may include the use of functionally equivalent reconditioned units. Replaced faulty parts or components will become the property of EW.

3. This Warranty does not cover any failure of the product due to normal wear and tear or misuse, (including but not limited to use in a manner other than the normal and customary manner) accident, modification or adjustment, Acts of God, improper ventilation, and other such damages.



4. This Warranty does not cover product failures due to repair installations, modifications, or improper service performed by a non-certified Service Centre or opening of the product by non-EW certified persons.
5. The Warranty does not cover product failures caused by the use of non-EW original accessories.
6. Tampering with any of the seals on this product will void the Warranty.
7. No other express warranties, whether written or oral, other than this printed limited Warranty shall apply. All implied warranties, including, and without limitation, the implied warranties of merchantability or fitness for a particular purpose, are limited to the duration of this limited warranty. EW shall under no circumstances be liable for incidental or consequential damages of any nature whatsoever. Such damages include, but are not limited to, lost profits or commercial loss, to the full extent that said damages can be disclaimed by law.

Power Supply

Only connect the AC (Power Supply) to designated power sources. When removing the cord from the outlet, hold onto the AC adapter rather than the cord in order to reduce the risk of damage to the electric cord.

To reduce risk of electric shock, unplug the unit from any power source before attempting to clean it.

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