# WPER-150GN

# IEEE 802.11b/g/n USB Half-Mini-Card Module

# I. Introduction

# i. Overview

SparkLAN Communications, Inc. introduces the pioneer of the IEEE 802.11b/g/n USB Half-Mini-Card wireless module --- WPER-150GN. The WPER-150GN USB Half-Mini-Card wireless module is a highly integrated wireless local area network (WLAN) solution to let users enjoy the digital content through the latest wireless technology without using the extra cables and cords. It enables a high performance, cost effective, low power, compact solution that easily fits onto one side of a USB Half-Mini-Card.

Compliant with the IEEE 802.11b/g/n standard, the WPER-150GN uses Direct Sequence Spread Spectrum (DSSS), Orthogonal Frequency Division Multiplexing (OFDM), BPSK, QPSK, CCK and QAM baseband modulation technologies.

A high level of integration and full implementation of the power management functions specified in the IEEE 802.11 standard minimize system power requirements by using WPER-150GN.

### Longer Range and Faster Speed

Comparing to 802.11g technology, 802.11n draft 3.0 standard make big improvement on speed and range. It Increases wireless range by up to 2 times and reduces dead spots in coverage area. The data rate can up to 150Mbps data rate.

### ii. Features

- USB Half-Mini-Card.
- Compliant with IEEE802.11n Draft 3.0 standard
- 2 antennas to support 1(Transmit) × 1(Receive) Diversity technology
- High speed wireless connection up to 150MbpsLow power consumption and high performance
- Enhanced wireless security

# iii. Product Review

1. Connection Mode

# Infrastructure Mode

Infrastructure mode needs an access point to establish the network, which can provide wireless accesses within valid range for users to communicate with others or transmit data with a wired network. There are several benefits of Infrastructure networking:

 $\sqrt{\text{Roaming: a wireless LAN enabled computer can physically move from the operating range of one access point to the other without losing connection. There is a quick association made between new access point and wireless device as the computer traverses from the coverage of one access point to another.$ 

 $\sqrt{\text{Range Extension: each wireless LAN enabled computer within the range of access point can communicate with other wireless LAN enabled computers within the effective range from the access point.$ 

 $\sqrt{\text{Wired to wireless LAN connection: the access point will establish a bridge between wireless LAN and other wired counterparts.}$ 



Infrastructure Mode

# Ad-hoc Mode

The difference between Ad-hoc mode and Infrastructure mode is that Ad-hoc mode does not need the access point or router. When you use this mode, your computer will act as a server within the valid range and connect directly to others in the same LAN workgroup.



Ad-hoc Mode

It is recommended to choose this mode when there is no access point showed on your wireless network.

# II. Installation

# i. System Requirements

\*Minimum of 64MB system memory

- \*Operating system: XP/Vista
- \* Driver installation

# ii. Setup: Windows XP OS

1. Find out the Driver, and launch the Setup Wizard



2. Please wait few seconds for wizard to prepare installation



# 3. Please select click [Install] to proceed



# 4. The Wizard is running installation



5. Please wait few seconds for Wizard to setup



# 6. When it is completed, please click [Finish]

Ralink Wireless LAN - Instal	IShield Wizard
	InstallShield Wizard Complete
Ralink	The InstallShield Wizard has successfully installed Ralink Wireless LAN. Click Finish to exit the wizard.
In <b>Scantar II St</b> áicid	< Back Finish Cancel

# iii. Setup: Windows Vista OS

Please follow the steps to complete installation.

# 1. Launch the setup driver

Conditioner - III Alex	s 🔮 eum				
vorite Links Documents Pictures Music Recently Changed Searches Public	Name Setup.dli data1 data1.hdr data2 SSetup.dll layout.bin setup setup.inx setup.isn	Date modified 5/18/2006 12:21 AM 7/10/2007 5:14 PM 7/10/2007 5:14 PM 7/10/2007 5:14 PM 7/10/2007 5:14 PM 5/12/2006 1:10 AM 7/9/2007 5:28 PM 7/10/2007 5:28 PM 7/10/2007 5:14 PM 5/17/2006 3:44 AM	Type Application Extens Cabinet File HDR File Cabinet File Application Extens BIN File Application Configuration Sett INX File ISN File	Size 365 KB 1,059 KB 31 KB 31,009 KB 540 KB 1 KB 445 KB 1 KB 254 KB 52 KB	
olders A	E.				

2. When you see the permission dialogue box, please click [Continue]



# 3. Now the Wizard is preparing installation

Wireless LAN - InstallShield Wizard		
Preparing Setup Please wait while the InstallShield	Wizard prepares the setup.	
	Wireless LAN Setup is preparing the InstallShield Wizard, which will guide you through the rest of the setup process. Please wait.	
InstallShield		Cancel

# 4. Please click [Install] to proceed

Wireless LAN - InstallShield Wizar Ready to Install the Program The wizard is ready to begin inst	d 📃 💽
	Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield	K Back Install Cancel

# 5. The system is processing installation



# 6. Please wait few seconds for Wizard to setup



# 7. When the setup is completed, please click [Finish]

Wireless LAN - InstallShield Wizard	4	
	InstallShield Wizard Complete	
	The InstallShield Wizard has successfully installed Wireless LAN. Click Finish to exit the wizard.	
	processing	
InstallShield	< <u>B</u> ack Finish	Cancel

# III. Network Connection

# i. For Windows XP OS

Please see the following steps to setup network connection for Windows XP.

1. Find the network icon on the desktop shortcut and right-click on it. Choose "View Available Wireless networks"

Wireless Network Connection 23 Not connected. Right-click here for more options.
Change Windows Firewall settings
Open Network Connections
Repair
<u>V</u> iew Available Wireless Networks
→ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

2. You will see several options, please select one and click [Connect]



3. Please wait for few seconds to let system connecting to selected wireless network

Wireless Network Connection
••••
Please wait while Windows connects to the 'SparkLan-andy-501' network.
Detecting network type
Cancel

4. You may need to type the network key when it is required (if the network doesn't request the key, the network will connect directly.)

Wireless Network Connection			
The network 'SparkLan-andy-501' requires a network key (also called a WEP key or WPA key). A network key helps prevent unknown intruders from connecting to this network. Type the key, and then click Connect.			
Network <u>k</u> ey:	•••••		
C <u>o</u> nfirm network key:	•••••		
	<u>C</u> onnect Cancel		

5. Now the selected wireless network is connected

(%) Wireless Network Connection 23			
Network Tasks	Choose	e a wireless network	
🛃 Refresh network list	Click an iter information	n in the list below to connect to a <u>w</u> ireless network in r	ange or to get more
Set up a wireless network	((ဝူ))	SparkLan-andy-501	Connected 👷 🔷
for a nome of small office	U	😚 Security-enabled wireless network	
Related Tasks	((Q))	FAE-demo	
<ol> <li>Learn about wireless</li> </ol>	U	😚 Security-enabled wireless network (WPA)	
networking	((ດູ))	SparkLan	
Change the order of preferred networks	U	😚 Security-enabled wireless network (WPA)	
🌮 Change advanced	((ດູ))	1590	
settings	U	😚 Security-enabled wireless network	
	((ດູ))	default	
	U	Unsecured wireless network	•000
	((ດູ))	FingerSecurirty	
	U	👫 Security-enabled wireless network	•000 🧹
			⊆onnect

6. You can check the connection status by clicking [Status] in the pop-up dialogue



7. Here is the wireless network connection status

<sup>((</sup> ) <sup>1)</sup> Wireless Networ	rk Connection 23 Status	×
General Support		_
Connection	,	
Status:	Connected	
Network:	SparkLan-andy-501	
Duration:	00:19:56	
Speed:	54.0 Mbps	
Signal Strength:		
Activity	Sent — 🛃 — Received	
Packets:	491   221	
Properties	<u>D</u> isable <u>V</u> iew Wireless Networks	
	<u>C</u> lose	

# ii. For Windows Vista OS

Following are the instructions to setup wireless connection for Windows Vista.

1. Right-click on the network icon located on desktop shortcut. When you see the dialogue, please click [Connect to a network]



2. Choose wireless network within your range and click [Connect]

🌀 😰 Con	nect to a network		
Select	a network to conne	ct to	
Sh	iow All	•	<b>4</b> 7
2	SWRDG	Security-enabled network	Î llte
<b>_</b>	bu	Unsecured network	llie.
2	IAPO-G54	Security-enabled network	lite.
	1		- II.
<u>Set up a</u> Open No	connection or network etwork and Sharing Cente	Ľ	
			Connect Cancel

\* If selected network is not secure, please choose [Connect anyway]

1

3. You may need to wait for few seconds when Windows connects to wireless network

Connect to a network	
Connecting to SparkLAN	
A	
	Cancel

4. Now the selected wireless network is connected



5. If you want to see the connection status, please right-click on the network you choose and select [Status]

						6.6	×
00	🔮 « Networ	k and Internet + Network Connection	ons )	• 49	Search		9
🐚 Orga	nize 👻 📲 View	is 🔹 🐒 Connect To 🏾 🏋 Disabli	e this network device	📑 Diagnose t	his connection	10	U
Name	Status	Device Name Connectivity	Network Category	Owner	Туре	Phone # or Host Ad	idre
LAN or H	High-Speed Interne Wireless Network	connection					î
	2 AzureWave	Disable Connect / Disconnect Status Diagnose Bridge Connections Create Shortcut Delete Rename Properties					

# 6. This is the information of network status

General		
Connection		
IPv4 Connectivit	¥:	Internet
IPv6 Connectivit	y:	Limited
Media State:		Enabled
SSID:		AzureWave
Duration:		00:03:42
Speed:		48.0 Mbps
Signal Quality:		llee
Details	Wreless Properties	
Activity		
	Sent — 🜉	Received
Bytes:	60,071	2,286,765
Properties	Cisable Dia	gnose
		Close

# IV. Setup for Ad-hoc Mode

# i. For Windows XP OS

If you want to choose Ad-hoc mode, please right-click network icon on desktop shortcut and choose "Open Network Connections", or go to [Control Panel] and double-click "Network Connection" icon.



When you see the "Network Connections" screen, please follow the steps below to setup Ad-hoc mode.

1. Double-click "Wireless Network Connection" icon to enter its properties



2. Click "General" tab and double-click the "Internet Protocol (TCP/IP)" item



3. Choose "Use the following IP address:" and type the IP address; then click [OK]

Internet Protocol (TCP/IP) Proper	rties 🛛 🛛 🛛 🤶 🔀
General	
You can get IP settings assigned autom this capability. Otherwise, you need to a the appropriate IP settings.	natically if your network supports ask your network administrator for
Obtain an IP address automatically	y
O Use the following IP address: ──	
IP address:	192.168.1.100
S <u>u</u> bnet mask:	255 . 255 . 255 . 0
<u>D</u> efault gateway:	· · ·
O Obtain DNS server address autom	atically
Ose the following DNS server add Other server add	resses:
Preferred DNS server:	
Alternate DNS server:	· · ·
	Ad <u>v</u> anced
	OK Cancel

\*Note: the IP address of the other wireless card should be set with the same subnet mask

4. Right-click the "Wireless Network Connection" icon and choose "properties"



# 5. Select "Wireless Network" tab and choose [Add]

🔸 Wireless Network Connection 23 Properties 🛛 🕐 🔀
General Wireless Networks Advanced
✓ Use <u>W</u> indows to configure my wireless network settings
Available networks:
To connect to, disconnect from, or find out more information about wireless networks in range, click the button below.
View Wireless Networks
Preferred networks: Automatically connect to available networks in the order listed below: Move up
Add., Remove Properties
Learn about <u>setting up wireless network</u> Ad <u>vanced</u>
OK Cancel

6. Type "Network name (SSID)" and choose "Data encryption" if you want to protect the network security

Wireless network properties	? 🗙
Association Authentication Connection	
Network name (SSID): SparkLan-andy-501	
Wireless network key	
This network requires a key for the following:	
Network Authentication: Open	*
Data encryption: Disabled	~
Network <u>k</u> ey:	
Confirm network key:	
Key inde <u>x</u> (advanced): 1	
This is a <u>c</u> omputer-to-computer (ad hoc) network; wireless access points are not used	
ОК	Cancel

- 7. When you see the dialogue showing your network is unsecured, please click [Continue Anyway]
- 8. Now your network is in Ad-hoc mode

🕹 Wireless Network Connection 23 Properties 🛛 🕐 🔀
General Wireless Networks Advanced
✓ Use <u>W</u> indows to configure my wireless network settings
Available networks:
To connect to, disconnect from, or find out more information about wireless networks in range, click the button below.
View Wireless Networks
Preferred networks: Automatically connect to available networks in the order listed below:
SparkLan-andy-501 (Automatic)
Move <u>d</u> own
<u>A</u> dd <u>R</u> emove Properties Learn about <u>setting up wireless network</u> <u>Advanced</u>
OK Cancel

ii. For Windows Vista OS

Please follow the steps to setup Ad-hoc mode for Windows Vista.

1. Right-click the Network neighbor to choose "properties," or you can right-click network icon on desktop shortcut and choose "Network and Sharing Center"





2. When you see the "Network and Sharing Center" windows, please select "Manage network connection" bar

Network and Inte	ernet   Network and Sharing Center	er 🔻 🖣 🛛 Search	
Tasks View computers and devices	Network and Sharing Co	enter	View full man
Connect to a network Manage wireless networks Set up a connection or network Manage network connections	TEST-PC (This computer)	SparkLAN	Internet
Diagnose and repair	💐 AzureWave (Public netwo	ork)	Customize
	Access	Local and Internet	
	Connection	Wireless Network Connection SparkLAN	View status
	Connection	Wireless Network Connection SparkLAN	View status Disconnect
	Connection Sharing and Discovery	Wireless Network Connection SparkLAN	View status Disconnect
	Connection Sharing and Discovery Network discovery	Wireless Network Connection SparkLAN M Signal strength: Excellent On	View status Disconnect
	Connection  Sharing and Discovery  Network discovery  File sharing	Wireless Network Connection SparkLAN         utll Signal strength: Excellent         On         On	View status Disconnect ©
	Connection Sharing and Discovery Network discovery File sharing Public folder sharing	Wireless Network Connection SparkLAN Signal strength: Excellent On On Off	View status Disconnect () () () () () ()
	Connection Sharing and Discovery Network discovery File sharing Public folder sharing Printer sharing	Wireless Network Connection SparkLAN all Signal strength: Excellent  On On On Off Off Off (no printers installed)	View status Disconnect
See also	Connection Sharing and Discovery Network discovery File sharing Public folder sharing Printer sharing Password protected sharing	Wireless Network Connection SparkLAN all Signal strength: Excellent	View status Disconnect (*) (*) (*) (*) (*) (*)

3. Right-click the connected network icon and choose "Properties"

Connections							
🔄 Organize 👻 📰 Views 🔹	U U						
Name Status Device Name Connectivity Net	work Category Owner Type Phone # or Host Addre						
LAN or High-Speed Internet (2)	· · · · ·						
Network cable unplugged	connection						
Marvell Yukon B8E8056 PCI CABLE_MODEM ;	Disable						
	Connect / Disconnect						
	Status						
	Diagnose						
	Bridge Connections						
	Create Shortcut						
	Delete						
	Rename						
	Properties						
-							

4. When you see the warning message, please click [Continue]



5. Choose "Networking" tab and double-click the "Internet Protocol Version 4 (TCP/IPv4)" item

802 11e USB	Weslees LAN Card	
2 002.111.030	The case of the case	
		Configure
This connection use	ts the following items:	
Client for N	terrosoft Networks	
Con S Packs	at Scheduler	
File and Pri	inter Sharing for Microsoft	t Networks
A Internet Pro	atocal Version 6 (TCP/IP	v6)
🗷 🕂 Internet Pro	ctocol Version 4 (TCP/IP	v4)
M -+ Link-Layer	Topology Discovery Map	per I/O Driver
M - Link-Layer	Topology Discovery Res	ponder
	Uninstall	Properties
Instal		
Install Description		
Install Description Transmission Con	trol Protocol/Internet Pro	tocol. The default
Instal Description Transmission Con wide area networ across diverse int	trol Protocol/Internet Pro k protocol that provides of	tocol. The default communication

6. Choose "Use the following IP address:" and type the IP address; then click [OK]

You can get IP settings ass this capability. Otherwise, 1 for the appropriate IP setting	igned autom you need to ngs.	atically ask you	if yo ur ne	ur i two	nets ork a	work admin	supports istrator
Obtain an IP address	automatically	/					
Use the following IP as	ddress:						
IP address:		192 .	168	×)	0	. 10	
Subnet mask:		255	255	. 2	55	. 0	
Default gateway:			6	•		e	1
Cobtain DNS server ad	dress autom	atically					
. Use the following DNS	server addr	esses;					
Preferred DNS server:			ġ.			ē.	
Alternate DNS server:		1					

\*Note: the IP address of the other wireless card should be set with the same subnet mask

# 7. Choose "Manage wireless networks" bar

Tasks View computers and devices	Network and Sharing Center		View full m
Connect to a network Manage wireless network Set up a connection or network	TEST-PC	- O	
Manage network connections Diagnose and repair	(This computer)		
×	Not connected		
	Wireless networks are available.		
the second	Connect to a network		
1			
See also			
Internet Options			

# 8. Select [Add]



#### 9. Choose "Create ad-hoc network"



10. Please click [Next]



11. Enter "Network name" and if you want to protect the network security, please choose in "security type"; then click [Next]

Give your network	a name and choose security	r options
Network name:	test	
Security type:	No authentication (Open)	Help.me.choose
Security key/Passphrase		Display characters
Save this netwo	rk	

12. Now your network is in Ad-hoc mode

I Inter Wat	ually connect to a wireless network	
The de		
The te	st network is ready to use	
This net disconn to conn	work will appear in the list of wireless networks and will stay active until everyone ects from it. Give the network name and security key (if any) to people you want ect to this network.	
	Wireless network name: test	
	Network security key: unsecured	
To share	files, open Network and Sharing Center in Control Panel and turn on file sharing.	

#### Europe - EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

#### - EN 60950-1: 2006

Safety of Information Technology Equipment

#### - EN50371

#### - EN 300 328 V1.7.1: (2006-10)

Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems;
 Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

#### EN 301 489-1 V1.6.1: (2005-09)

Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

#### - EN 301 489-17 V1.2.1 (2002-08)

- Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 - 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

# **CE** 0560 ①

- Switch off the radio components (Bluetooth or wireless LAN) on the device when you are in a hospital, an operating room or near a medical electronics system. The transmitted radio waves can impair the operation of the medical devices.
- Keep the device at least 20 cm from a pacemaker, as otherwise the proper operation of the pacemaker may be impaired by radio waves.
- The transmitted radio waves can cause an unpleasant humming in hearing aids.
- Switch off the device when you are in an aircraft or driving in a car.
- Do not let the device near flammable gases or into hazardous environments (e.g. paintshops) with radio components switched on, as the transmitted radio waves can cause an explosion or a fire.

₫Česky	[Jméno výrobce] tímto prohlašuje, že tento [typ zařízení] je ve shodě se základními	
[Czech]	požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.	
daDansk	Undertegnede [fabrikantens navn] erklærer herved, at følgende udstyr [udstyrets	
[Danish]	typebetegnelse] overholder de væsentlige krav og øvrige relevante krav i direktiv	
	1999/5/EF.	
de Deutsch	Hiermit erklärt [Name des Herstellers], dass sich das Gerät [Gerätetyp] in	
[German]	Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen	
	Bestimmungen der Richtlinie 1999/5/EG befindet.	
etEesti	Käesolevaga kinnitab [tootja nimi = name of manufacturer] seadme [seadme tüüp = type	
[Estonian]	of equipment] vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist	
	tulenevatele teistele asjakohastele sätetele.	
∎ English	Hereby, [name of manufacturer], declares that this [type of equipment] is in compliance	
	with the essential requirements and other relevant provisions of Directive 1999/5/EC.	
∎spañol	Por medio de la presente [nombre del fabricante] declara que el [clase de equipo]	
[Spanish]	cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o	
	exigibles de la Directiva 1999/5/CE.	
<b>el</b> Ελληνική	ME THN $\Pi$ APOY $\Sigma$ A [name of manufacturer] $\Delta$ HA $\Omega$ NEI OTI [type of equipment]	
[Greek]	ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ	
	ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.	
fr Français	Par la présente [nom du fabricant] déclare que l'appareil [type d'appareil] est conforme	
[French]	aux exigences essentielles et aux autres dispositions pertinentes de la directive	
	1999/5/CE.	
it Italiano	Con la presente [nome del costruttore] dichiara che questo [tipo di apparecchio] è	
[Italian]	conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva	
	1999/5/CE.	
Latviski	Ar šo [name of manufacturer / izgatavotāja nosaukums] deklarē, ka [type of equipment /	
[Latvian]	iekārtas tips] atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to	

	saistītajiem noteikumiem.	
Lietuvių	Šiuo [manufacturer name] deklaruoja, kad šis [equipment type] atitinka esminius	
[Lithuanian]	reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.	
Mederlands	Hierbij verklaart [naam van de fabrikant] dat het toestel [type van toestel] in	
[Dutch]	overeenstemming is met de essentiële eisen en de andere relevante bepalingen van	
	richtlijn 1999/5/EG.	
mt Malti	Hawnhekk, [isem tal-manifattur], jiddikjara li dan [il-mudel tal-prodott] jikkonforma	
[Maltese]	mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva	
	1999/5/EC.	
huMagyar	Alulírott, [gyártó neve] nyilatkozom, hogy a [ típus] megfelel a vonatkozó alapvetõ	
[Hungarian]	követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.	
Polski	Niniejszym [nazwa producenta] oświadcza, że [nazwa wyrobu] jest zgodny z	
[Polish]	zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy	
	1999/5/EC.	
<b>pt</b> Português	[Nome do fabricante] declara que este [tipo de equipamento] está conforme com os	
[Portuguese]	requisitos essenciais e outras disposições da Directiva 1999/5/CE.	
রা Slovensko	[Ime proizvajalca] izjavlja, da je ta [tip opreme] v skladu z bistvenimi zahtevami in	
[Slovenian]	ostalimi relevantnimi določili direktive 1999/5/ES.	
Slovensky	[Meno výrobcu] týmto vyhlasuje, že [typ zariadenia] spĺňa základné požiadavky a všetky	
[Slovak]	príslušné ustanovenia Smernice 1999/5/ES.	
fiSuomi	[Valmistaja = manufacturer] vakuuttaa täten että [type of equipment = laitteen	
[Finnish]	tyyppimerkintä] tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä	
	koskevien direktiivin muiden ehtojen mukainen.	
s#Svenska	Härmed intygar [företag] att denna [utrustningstyp] står I överensstämmelse med de	
[Swedish]	väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv	
	1999/5/EG.	

# **Countries:**

Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Slovak, Spain, Bulgaria, Czech Republic, Switzerland, Sweden & UK.

## Federal Communication Commission Interference Statement

This equipment 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. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

### IMPORTANT NOTE:

#### FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

The available channels supported by the wireless products in various countries are different by firmware.

# This device is intended only for OEM integrators under the following conditions:

 The antenna must be installed such that 20 cm is maintained between the antenna and users

**IMPORTANT NOTE**: In the event that these conditions <u>can not be met</u> (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID <u>can</u> <u>not</u> be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

#### End Product Labeling

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users (for example Access Point ,Router). The final end product must be labeled in a visible area with the following: "Contains TX FCC ID:

WPER-150GN Manual Information That Must be Included

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the users manual of the end product which integrate this module.

The users manual for OEM integrators end users must include the following information in a prominent location " IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter".