



WNA699P5G.6 Product Specifications



V1.0

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FCC Information

This equipment complies with CFR 47, Part 15.19 of the FCC rules. Operation of the equipment is subject to the following 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 must not be co-located or operating in conjunction with any other antenna or transmitter

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

Federal Communications Commission (FCC) Requirements, Part 15

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 or more 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.

Regulatory information / Disclaimers

Installation and use of this Wireless LAN device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government

CAUTION: To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between the radiator and your body. Use on the supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

MPE Statement (Safety Information)

Your device contains a low power transmitter. When device is transmitted it sends out Radio Frequency (RF) signal.

Safety Information

In order to maintain compliance with the FCC RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between the radiator and your body. Use only with supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.



Introduction

The WNA699P5G.6, a Wireless Local Area Network (WLAN) 11b/g mini-PCIE Network Adapter, is a high-performance wireless access tool. It supports 802.11b/g Standards, works at 2.4G frequency band, data rate up to 54Mbps. By inserting it into a PC PCI Express socket and connecting it to a wireless access point through wireless interface, it can provide the broadband transmission service. It is suitable for using in a wide range of both residential (at-home) and commercial (offices, apartments, hotels, warehouses) network applications.

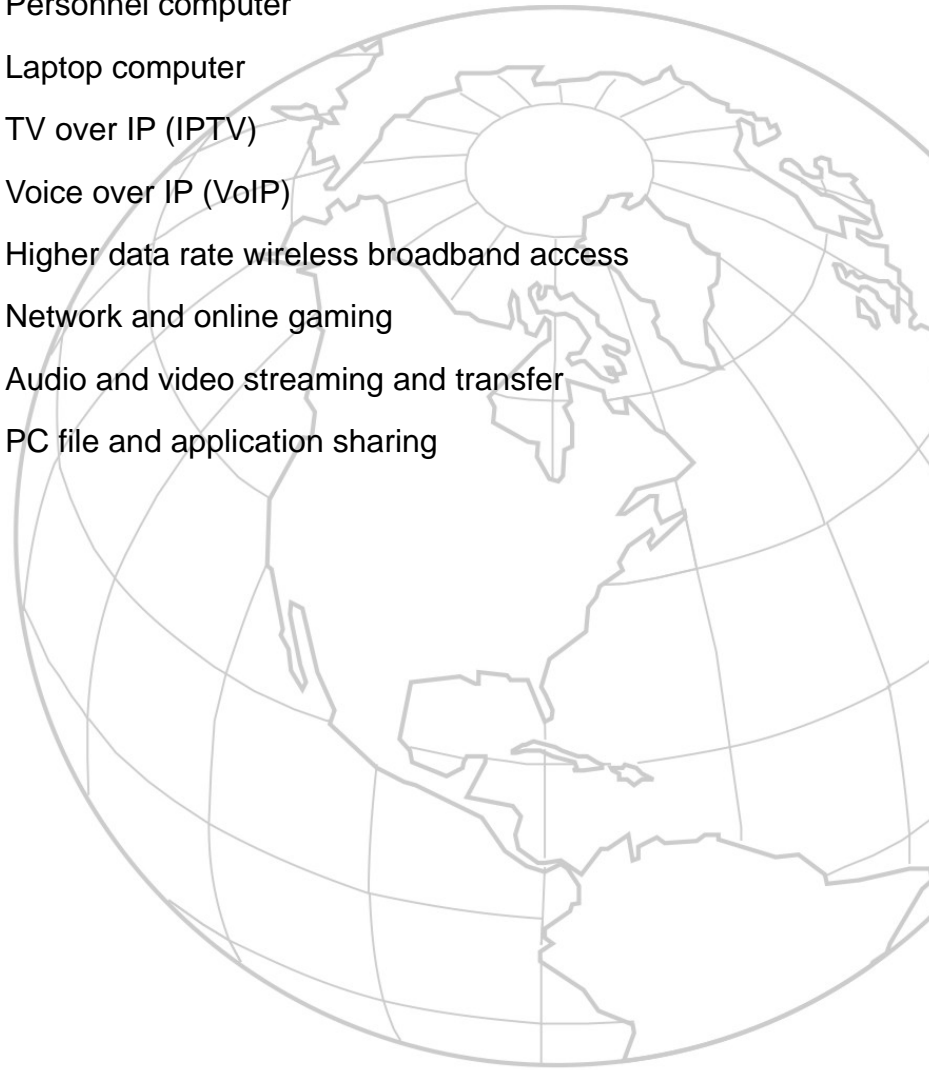
WNA699P5G.6 has 2 radio chains, one is a dedicated Rx chain, the other is shared by TX and RX chain using an RF switch. For RX, It supports antenna diversity and provides four options. A software diversity algorithm is used to determine which option is used.

- Compatible with IEEE 802.11b/g
- Support 802.1x
- PCI Express Base Specification compliance: Rev 1.1
Security: WEP, WPA Personal, WPA2 Personal, WMM, WMM-PS(UA-PSE), TKIP, and AES hardware acceleration
- Support downstream or upstream data rate up to 54Mbps
- Support Antenna Diversity
- Advanced power saving mode
- Support for Bluetooth coexistence algorithm



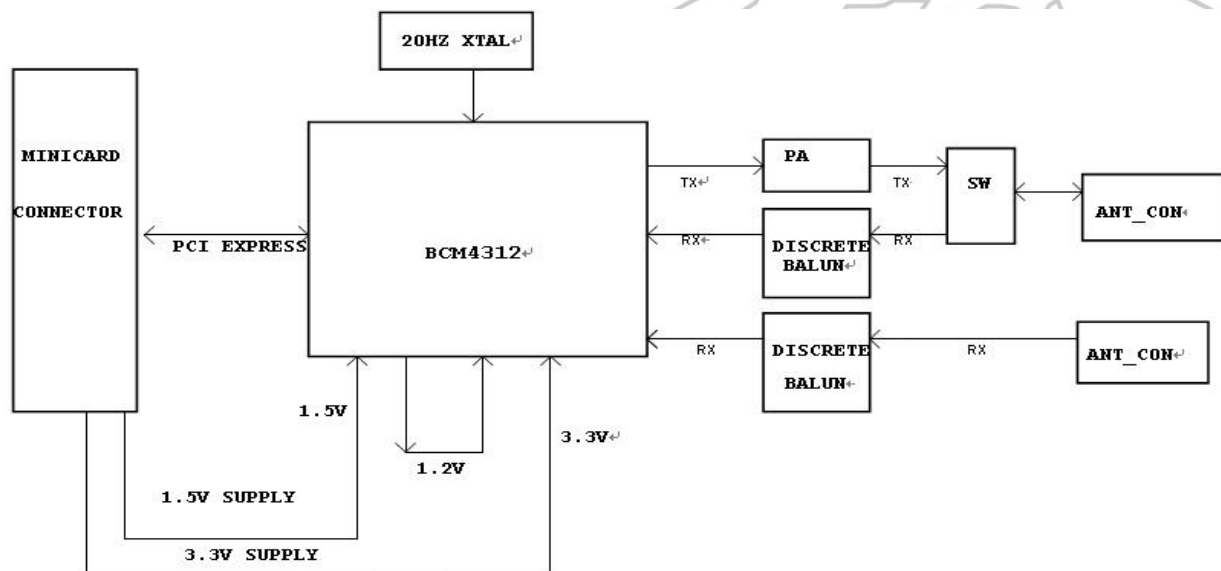
Application

- Personnel computer
- Laptop computer
- TV over IP (IPTV)
- Voice over IP (VoIP)
- Higher data rate wireless broadband access
- Network and online gaming
- Audio and video streaming and transfer
- PC file and application sharing



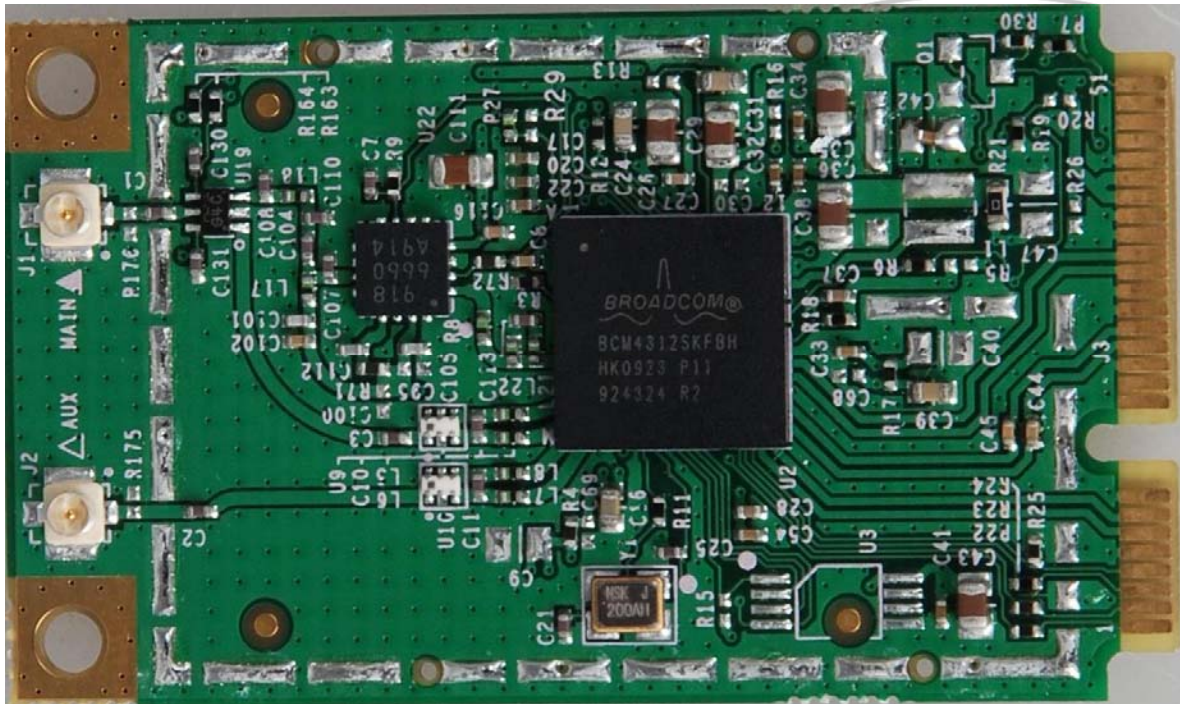


Hardware Architecture





Product Photo





Parameters and Specifications

Parameters	Specifications
System Spec	
Chipset	BCM4312
EEPROM	OTP mode
Feature and Technical Spec	
Software Support	Windows® XP, Windows Vista®, Linux®
Operating Channels	11 for North America, 13 for Europe, 14 for Japan According Customers' Requirements
Operating Frequencies	N. America (default): 2.412 GHz ~2.462 GHz Europe ETSI: 2.412 GHz~2.472 GHz Japan: 2.412 GHz~2.484 GHz
Modulation Schemes	DSSS, CCK, OFDM, DBPSK/BPSK, DQPSK/QPSK, 16QAM, 64QAM
Security	802.1x, WEP, WPA/WPA2
RF Output Power	<ul style="list-style-type: none"> ● 802.11b: 16.5 dBm ± 1.5 dBm ● 802.11g: 15.5 dBm ±1.5 dBm
Receiver Sensitivity (Typical Value)	<ul style="list-style-type: none"> ● 54 Mbps OFDM @ 10% PER: -73 dBm ● 11 Mbps CCK @ 8% PER: -85 dBm
Data Rate	<ul style="list-style-type: none"> ● 802.11b: 11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps ● 802.11g: 54 Mbps, 48 Mbps, 36 Mbps, 24 Mbps, 18 Mbps, 12 Mbps, 9 Mbps, 6 Mbps
Range	Up to 300m (outdoor operating range)
EMC and Safety	
	<ul style="list-style-type: none"> ● FCC part 15 ● CE ● CCC ● Wi-Fi
Safety Regulations	UL
Green Standard	RoHS
Environment	
Operating Temperature	0°C~40°C
Storage Temperature	-20°C~70°C
Operating Humidity	5%~90%, non-condensing
Storage Humidity	5%~95%, non-condensing
Physical Characteristics	
Dimension	50.8 mm x 29.85 mm x 3.5mm
Weight	7g



Antenna Connector

Antenna I-PEX * 2

Pin Definition

Pin	name	Pin	name
51	BTCX STATUS	52	3.3V
49	NC	50	GND
47	NC	48	1.5V
45	NC	46	NC
43	GND	44	LED WLAN
41	3.3V	42	NC
39	3.3V	40	GND
37	GND	38	NC
35	GND	36	NC
33	PCIE RDP	34	GND
31	PCIE RDN	32	NC
29	GND	30	NC
27	GND	28	1.5V
25	PCIE TDP	26	GND
23	PCIE TDN	24	3.3V
21	GND	22	PCI PRST_L
19	NC	20	RF DISABLE
17	NC	18	GND
15	GND	16	NC
13	PCIE REFCLK_P	14	NC
11	PCIE REFCLK_N	12	NC
9	GND	10	NC
7	PCI CLKREQ_L	8	NC
5	COEX BT active	6	NC
3	COEX WLAN active	4	GND
1	WAKE	2	3.3V0



Mechanic Drawing

Full Size:

