



ALL168607

600 Mbps PLC+Coaxial Hybrid Adapter



USER MANUAL

PREFACE

This document describes the installation of ALL168607 Network products.

Please read this document before installing the product.

To the Installer

This publication contains the following sections:

- **Important safety instructions**
- **The first thing you need to know before you begin to install**
- **Product installation guide**
- **Specification**
- **LEDs and Buttons**

IMPORTANT SAFETY INSTRUCTIONS

This product is intended for connection over Coaxial cable. For installation instructions, refer to the Installation section. For removing the device, refer to the Unplug section. The following precautions should be taken when using this product.

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- Please read all instructions before installing and operating this product.
 - Please keep all instructions for later reference.
 - Please follow all warnings and instructions marked on the product.
 - **Unplug all the cords from the product before cleaning. Use a damp cloth for cleaning. DO NOT use liquid cleaners or aerosol cleaners.**
 - **DO NOT** operate this product near water.
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- This product should **never** be placed near or over a radiator, or heat register.
 - This product relies on the building's electrical installation for short-circuit (over current) protection.
 - Ensure that a fuse or circuit breaker **no larger than 120 VAC 20A or 240 VAC 16A** is used on the phase conductors (all current-carrying conductors).
 - **DO NOT** allow anything to rest on the product interconnect cords. **DO NOT** locate this product where people may walk on the cords.
 - The product can be operated at an ambient temperature of 40°C.
 - For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.
 - **Only** a qualified technician should service this product. Opening or removing covers may result in exposure to dangerous voltage points or other risks.
 - Unplug the AC cord from the wall outlet and refer the product to qualified service personnel for the following conditions:
 - When the interconnect cords are damaged or frayed.
 - If liquid has been spilled into the product.
 - If the product has been exposed to rain or water.
 - If the product does not operate normally when the operating instructions are followed.
 - If the product exhibits a distinct change in performance.

THE FIRST THING YOU NEED TO KNOW BEFORE YOU BEGIN TO INSTALL...

1. Before installing, make sure your PC meets these requirements for hardware installation:

- Microsoft Windows® 98SE, ME, 2000, XP, Vista, 7, 8 Mac OS or Linux OS
 - Pentium® III or better, clock rate faster than 2.0GHz recommended
 - Resource on your PC
 - At least one free Ethernet port
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2. Your PC must not be configured for another network. This means that:

- **No network clients** except for Microsoft Network*, Client for NetWare* Networks, or Microsoft Family Logon* are installed
 - **No network services** except file and printer sharing for Microsoft Networks or Personal Web Server* are installed
 - **No network protocols** except Microsoft's TCP/IP, IPX/SPX, NetBEUI, or Net BIOS support for IPX/SPX are installed
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3. Network installation requires two steps:

- Install the ALL168607 Adapter
 - For each PC to be added to the network, repeat the process
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4. Check that you have the following parts for each PC on the network:

Product installation guide for ALL168607:

1. ALL168607 Adapter
2. Ethernet Cable (CAT 5)
3. AC Cord



5. Familiarize yourself with the Coaxial device connections:



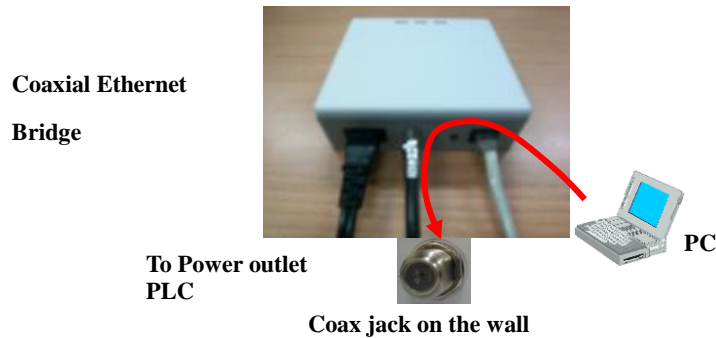
6. Limitation of the Coaxial device:

The longest distance between coaxial cable will be limited at 700 meter. More than 700 meter will cause the signal reduction or data loss.

Product installation guide

To install PC local network and transmit data via coaxial cable:

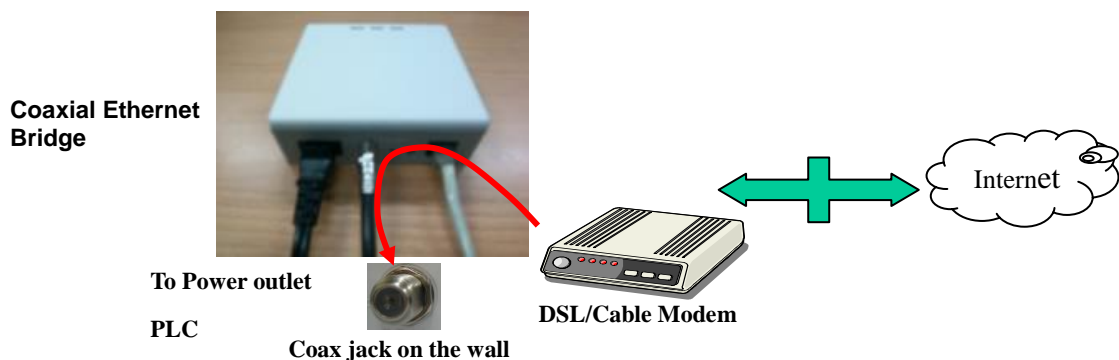
1. Use the supplied Cat 5 Ethernet cable to connect the Coaxial Ethernet Bridge's RJ45 connector and your PC's Ethernet port.
2. Use the coaxial cable to connect the Coaxial Ethernet Bridge's F Connector and a coax jack on the wall.
3. Connect the power cord to Coaxial Ethernet Bridge and plug the power cord to outlet.



4. The Power LED indicator will light on after plugged to outlet.
5. You can repeat steps 1 to 4 for connecting as many other links depending on your needs.
6. The COAX/ACT LED indicator starts blinking when the data communication proceeds on coaxial cable.
7. The ETH/ACT LED indicator starts blinking when the data communication proceeds on Ethernet.

To share an xDSL with Internet access service via coaxial cable:

1. Connect one Ethernet Bridge to broadband router
 - Plug the provided Ethernet cable into the RJ45 connector of the Coax Ethernet Bridge and plug the other end of the cable into an available Ethernet port of the Router.
 - Use coaxial cable to connect the Coaxial Ethernet Bridge's F Connector and a coax jack on the wall.
 - Connect the power cord to Coaxial Ethernet Bridge and plug the power cord to outlet.
 - The Power LED indicator will light on after plugged to outlet.

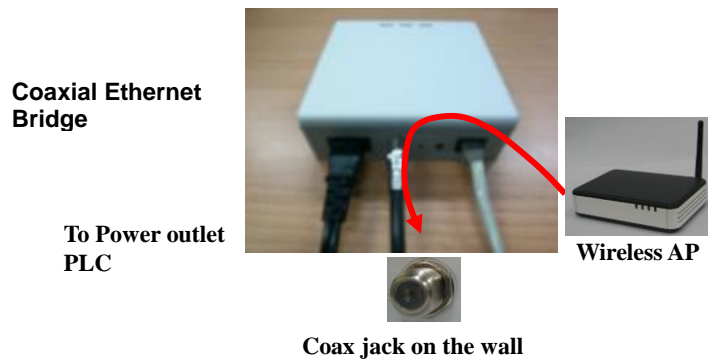


2. Follow up the above section **"To install PC local network and transmit data via coaxial cable"** to install your PC connection via coaxial cable. You will be able to access Internet through coaxial cable.

As wireless AP (Access Point) Extender via coaxial cable

Connect the Coaxial Ethernet Bridge to the AP:

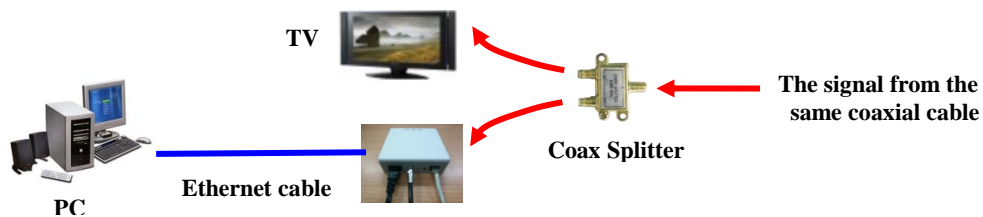
- Plug the provided Ethernet cable into the RJ45 connector of the Coaxial Ethernet Bridge and plug the other end of the cable into the Ethernet port on the wireless AP.
- Use the coaxial cable to connect the Coaxial Ethernet Bridge's F Connector and a coax jack on the wall.
- Connect the power cord to Coaxial Ethernet Bridge and plug the power cord to outlet.
- The Power LED indicator will light on after plugged to outlet.



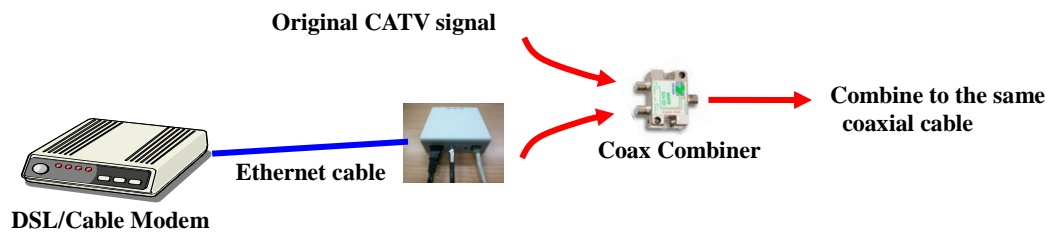
To set up your coax network

If you would like to use the existing coaxial cable in your home to set up the coax network, you can follow up the below procedure.

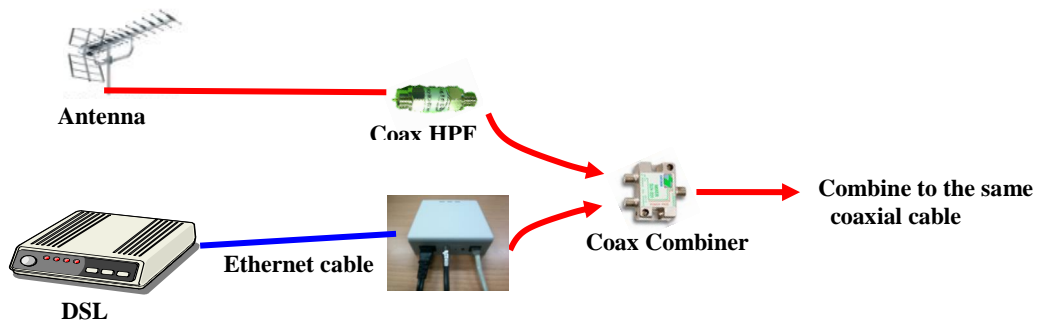
1. If you want to share the same coaxial cable for TV and coax network, please find a Coax Splitter to deliver the signal to TV and PC. If you don't need to connect to TV, please connect to PC via the Coaxial Ethernet Bridge directly. You won't need the Coax Splitter.



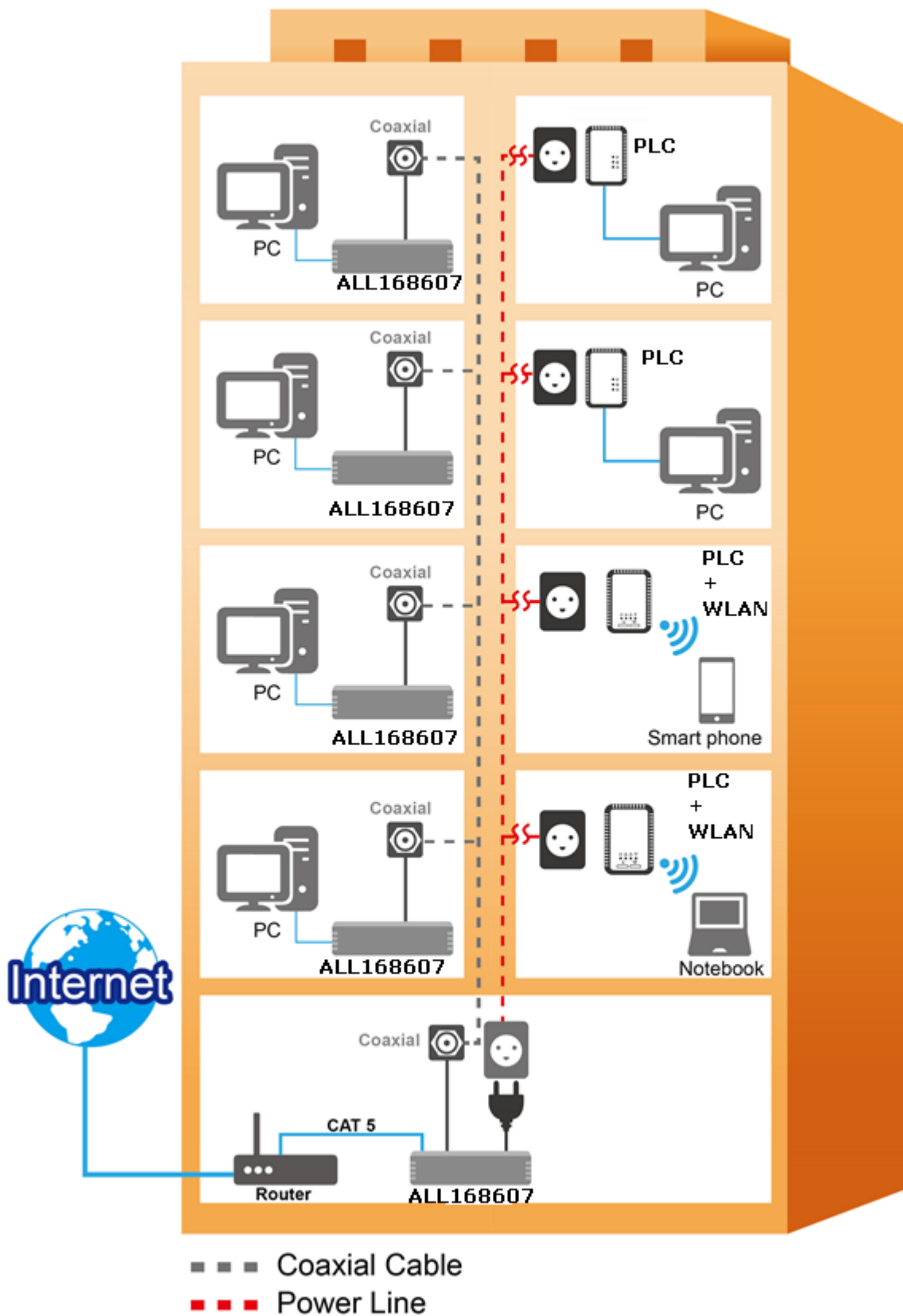
2. If you have a Router for the Internet Access. Please find a Coax Combiner to combine the data signal from Router and CATV signal to the same coaxial cable. It is better to select the Coax Combiner frequency range below 5MHz. Because the Coaxial Ethernet Bridge uses 2 to 28MHz frequency band for the data transmission.



3. If there is Antenna in your house for the CATV signal receiving, please add on the CATV HPF (High Pass Filter) to avoid the data signal to radiate outside via antenna. The CATV HPF can reject the frequency band below 40MHz. If you don't have antenna, the CATV HPF won't be necessary.



4. You will be able to set up your coax network to Internet and CATV using the same coaxial cable as below.

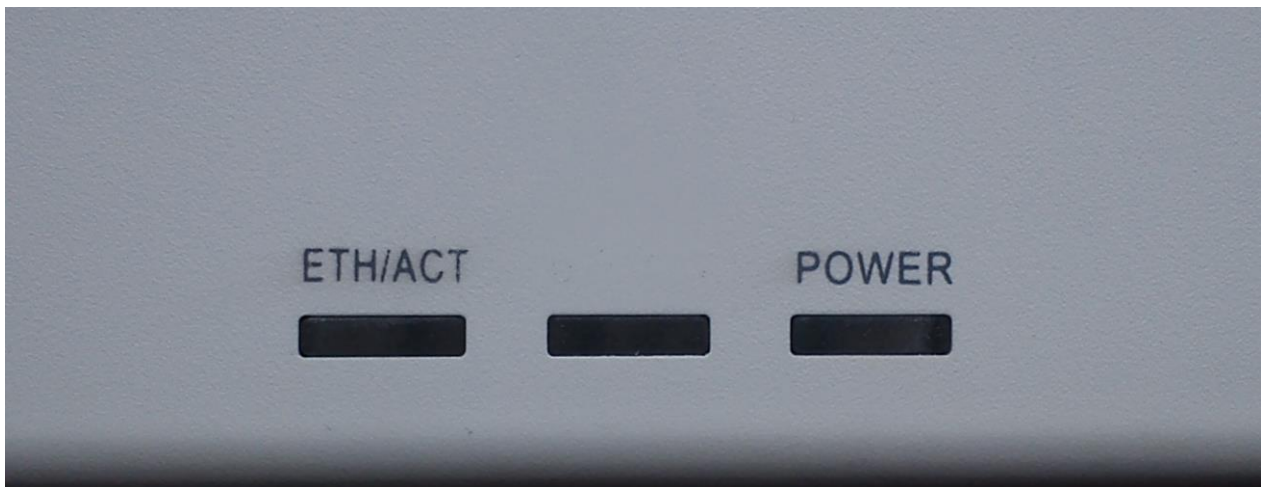


Specification

Product Name	ALLNET ALL168607
PHY Rate	600Mbps
Effect Data Rate	TCP: Up to 230 Mbps effective throughput
	UDP: Up to 280Mbps effective throughput
Frequency Band	2~68 MHz (With Mask)
Access Methods	Priority-based CSMA/CA channel access
Qos	Integrated Quality of Service (QoS) Enhancements
	Hardware Packet Classifiers for ToS, CoS and IP Port Number
	QoS Classification by destination MAC address and IP Port
Modulation	OFDM (Supports OFDM 4096/1024/256/64/16/8-QAM,QPSK, BPSK and ROBO Modulation Schemes)
Nodes	15 total devices
IGMP	Supports IGMP managed multicast sessions
	IGMP snooping with multicast to multiple unicast support
	IGMP/MLD Address filtering
Encryption	128-bit AES Link Encryption with key management
Standards	IEEE 802.3, IEEE 802.3U IEEE1901 and HomePlug AV2 SISO
Port	One 10/100/1000M Ethernet port One Coaxial port One AC power hole
Distance	Powerline : 300 meters Coacial: 700 meters
LEDs	Power (Green) Powerline Activity (Green) Ethernet Link/Activity (Green)
Environment	Indoor use
Temperature	Operating : 0~45°C
	Storage : -20~60°C
Relative Humidity	Operating : 10~90% Non-Condensing
	Storage : 5~90% Non-Condensing
Power Source	100~240 VAC, 50/60 Hz
Push button	Network Setup button for Network Security Management

	Factory default reset button
Power outlet	N/A
Dimensions (L x W x H)	67mmx50mmx32mm
Weight	69 g
Power Consumption	About 4.0W
Certification	FCC,CE , LVD
EuP	Meet the 2013 (<0.5W)

LEDs



Power	On: Power on Blinking: Standby mode (*1) Off: Power off
COAX/ACT	On: Coaxial Link detected and no traffic Blinking: Coaxial traffic detected <ul style="list-style-type: none">■ Green: The Coaxial connection quality is good■ Orange: The Coaxial connection quality is fair■ Red: The Coaxial connection quality is bad Off: No Coaxial Link detected
ETH/ACT	On: Ethernet Link Detected Blinking: Ethernet traffic detected Off: No Ethernet Link detected

1 : The "Power" LED indicator will blink in standby mode. It will get into standby mode, if you plug the device to outlet and no Ethernet link detected after booted and 60 second later. If you unplug the Ethernet cable, it will get into standby mode after 60 seconds. **Under standby mode, COAX/ACT and ETH/ACT LEDs will both be off.*

Push Buttons

Push button functions are disabled under Standby mode.

Setup Button Usage:

1. First time to setup your private network:

Step 1. Press and hold the device's "SETUP" button for more than 10 seconds. You can release the button when you see all the device's LEDs are off and restart. The original network encryption setting is cleared.

Step 2. Repeat Step 1 to clear another device's original network encryption setting.

Step 3. Press both devices' "SETUP" button for 1 to 3 seconds. You will see both devices' "Power" LED start blinking. Both devices start to communicate and try to setup their private network encryption. They will complete the new private network encryption setting within 10 seconds. You will see both devices' all LEDs are off and restart.

Note: The setup operation timeout is 120 seconds.

Step 4. If failed, please repeat Step 1 to Step 3 again.

2. Add the new device to the existing private network:

Step 1. Plug the new device. Press and hold the its "SETUP" button for more than 10 seconds to clear the original network encryption setting.

Step 2. Press the new device's "SETUP" button for 1 to 3 seconds. The "Power" LED starts blinking.

Step 3. Select a random device from the existing private network. Press its "SETUP" button for 1 to 3 seconds. The device's "Power" LED starts blinking.

Step 4. The new device starts to communicate with the device from existing private network, and tries to join this existing private network. It will complete the new private network encryption setting within 10 seconds. You will see the new device's all LEDs are off and restart after completing the private network setting. The existing private network device's "Power" LED become solid.

Note: The setup operation timeout is 120 seconds.

Step 4. If failed, please repeat Step 1 to Step 3 again.

3. Leave the private network:

Step 1. If the device wants to leave the private network, please press and hold the device's "SETUP" button for more than 10 seconds to clear the network encryption setting. This device will leave the private network.

Reset Button Usage:

1. Reset the device to the factory default setting:

Push the device's "RESET" button for 1 to 3 seconds. You will see the device's all LEDs are off and restart. The device's setting resets to the "factory defaults".



CE-Declaration of Conformity

For the following equipment:

Germering, 1st of June, 2014

HomeplugAV CoaxNet 600Mbit Adapter

ALL168607



The safety advice in the documentation accompanying the products shall be obeyed.

The conformity to the above directive is indicated by the CE sign on the device.

The ALLNET ALL168607 conforms to the Council Directives of 2004/108/EC and LVD Directive 2006/95/EC.

This equipment meets the following conformance standards:

EN 55022: 2010+AC: 2011

CISPR/1/257/CD: 2008

EN 61000-3-2: 2006+A2: 2009

EN 61000-3-3: 2008

EN 50412-2-1: 2005

IEC 61000-4-2: 2008 ; IEC 61000-4-3: 2010

IEC 61000-4-4: 2012 ; IEC 61000-4-5: 2005

IEC 61000-4-6: 2008 ; IEC 61000-4-8: 2009

IEC 61000-4-11: 2004

EN 60950-1:2006+A11:2009+A1:2010+A12:2011

IEC 60950-1:2005+A1:2009

This equipment is intended to be operated in all countries.

This declaration is made by

ALLNET GmbH Computersysteme

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Germering, 01.06.2014


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