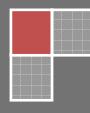


User Manual for The Hub device (AD802,AD803)

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1. Getting Started

1.1 Understanding this User Manual

For support with The Hub device, visit www.vignetcorp.com for contact information in obtaining the latest manual.

The sections of this manual generally follow the features of your Hub device. This manual gives navigation instructions according to the default display settings. If you select other settings, navigation steps may be different.

Hub Physical Size & Appearance (all units in millimeters (mm) unless otherwise specified):



1.2 Use Scenarios – What can I do with the Vignet Hub?

1.2.1 Gateway

This hub also has various interfaces integrated such as Bluetooth, Bluetooth LE as required by the sensor for connectivity.

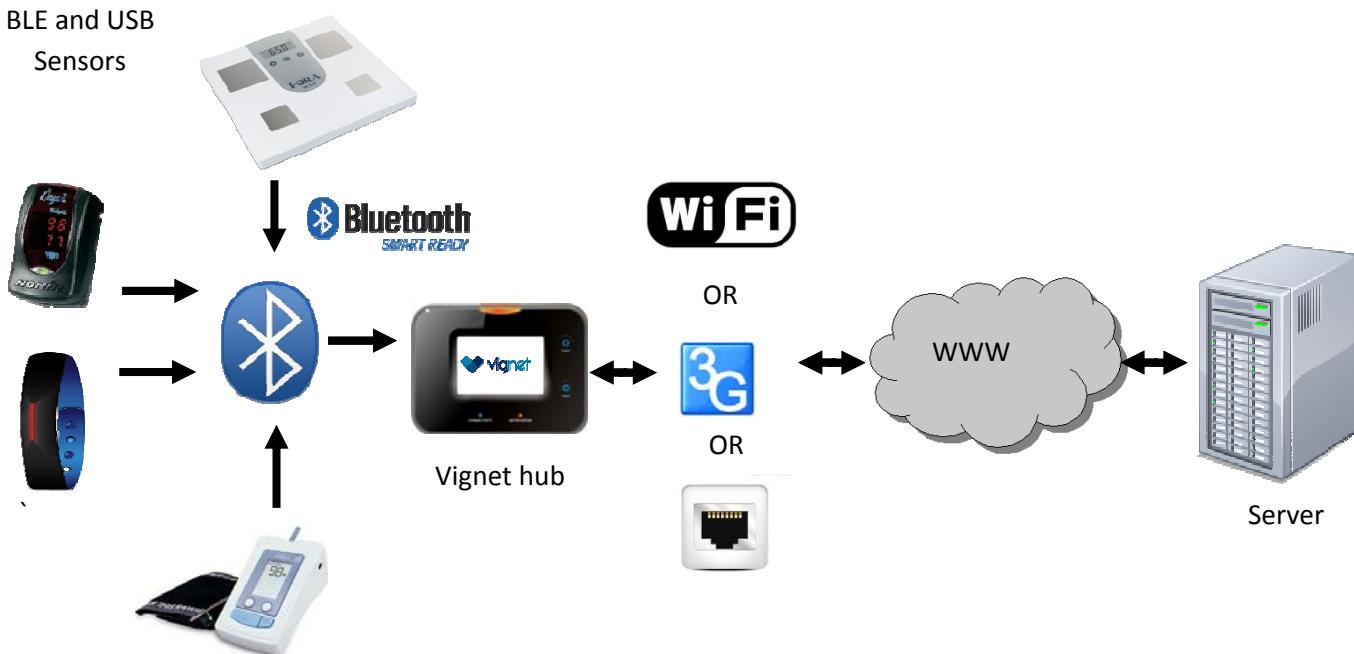
Multiple wireless sensors can connect to the hub at any time. This may include up to 3 BLE sensors and up to 2 Bluetooth Classic (2.1+EDR) sensors.

The hub has data access which provides a connection to the World Wide Web (WWW) either through a wired or wireless broadband connection or a cellular connection.

Upon receiving measurements from the sensor, the hub will pass these through to a web service using the World Wide Web connection.

Communication with the World Wide Web will be supported over only 1 connection at a time. This 1 connection may include Cellular, WiFi or Ethernet. Connections that are not in use will not necessarily be disabled, as the startup time may be too slow to decide a better connection is available.

Bluetooth,
BLE and USB
Sensors



1.2.2 Closed-Loop Alert System

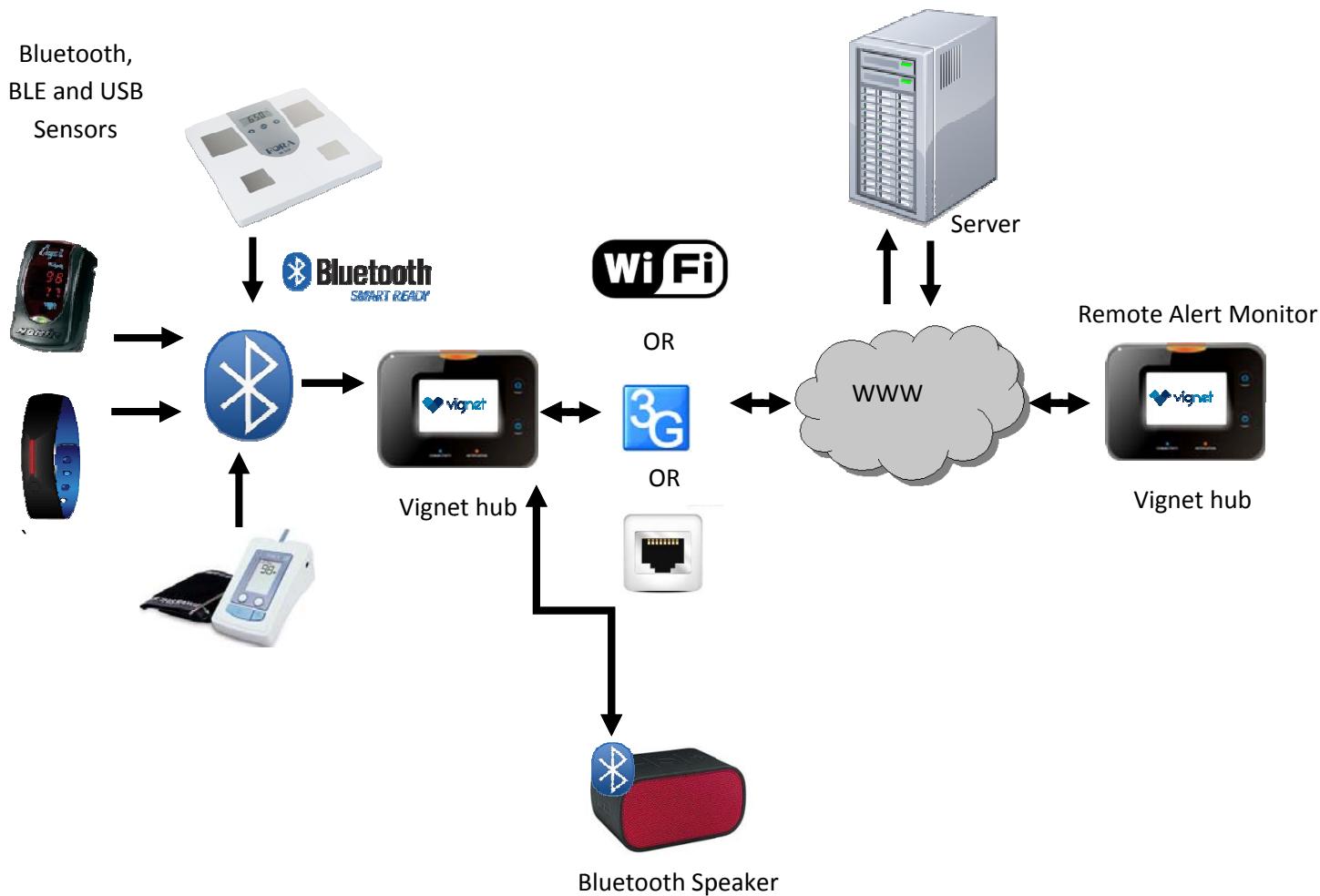
This hub also has various interfaces integrated such as Bluetooth, Bluetooth LE as required by the sensor for connectivity.

Multiple wireless sensors can connect to the hub at any time. This may include up to 3 BLE sensors and up to 2 Bluetooth Classic (2.1+EDR) sensors.

Upon receiving measurements from the sensor, the hub reviews alert conditions.

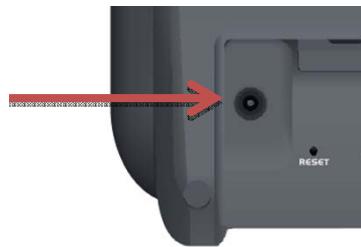
Alerts may be provided locally through the Vignet Hub, through a Bluetooth Speaker, or remotely using WiFi, 3G or Ethernet.

Communication may exist to the World Wide Web, or locally through a network router. Only 1 network connection will be supported at a time. This 1 connection may include Cellular, WiFi or Ethernet. Connections that are not in use will not necessarily be disabled, as the startup time may be too slow to decide a better connection is available.



1.3 Power Adapter

The power adapter attaches to the bottom of the unit.



The same power adapter can be used for multiple countries including US, China, UK, Europe and Australia. The interchangeable tips are optionally shipped with each unit and can be ordered independently as required.



After plugging in the power adapter, you should see the Hub automatically turn on.

1.4 Turning the Hub On and Off

Turning the hub on:

- Turn on will occur immediately after applying power to the hub.
- If the hub is turned off manually, to turn on the hub, press and hold the Power key for 1-2 seconds.

Turning the hub off:

1. Press and hold the Power key for 2 seconds
2. At the prompt, tap Power off

1.5 Battery

The battery maintains the clock when the Hub is disconnected from wall power.

Battery can be removed from the bottom of the unit using a screwdriver. This should only be done with the power to the Hub removed.



It should only be replaced using a new CR2032 battery.



Wipe the battery clean of any fingerprints and insert the positive (+) pole up, angling the battery downward and pressing the battery firmly into place. When replacing the battery door, be sure the door fits tight around the battery.

2. Understanding Your Vignet Hub

2.1 Features

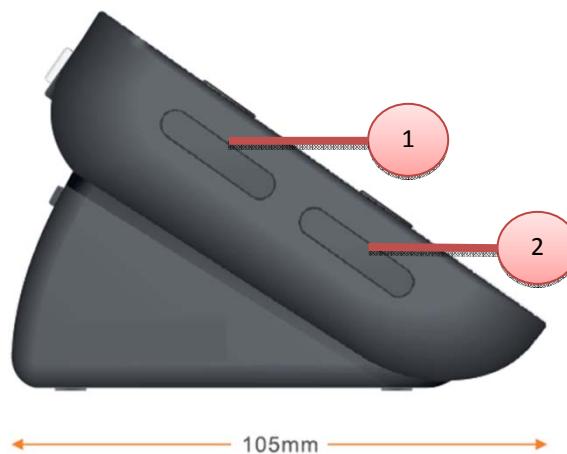
- Capacitive Touch-Screen
- 3G M2M Module
 - Removable SIM
- Audio Speaker
- Video Support
 - MPEG4(.mp4), 3GPP(.3GP)
- Audio Support
 - MPEG3 (.mp3) – only over Bluetooth A2DP speaker (optional)
- Connections
 - Wi-Fi 802.11 b/g/n
 - Bluetooth 2.1+EDR
 - Bluetooth LE
 - LAN 10/100mbps
 - USB 2.0 Host Port
 - USB Flash (optional)
 - USB OTG Port
 - USB 2.0 Host and Slave

2.2 Front View



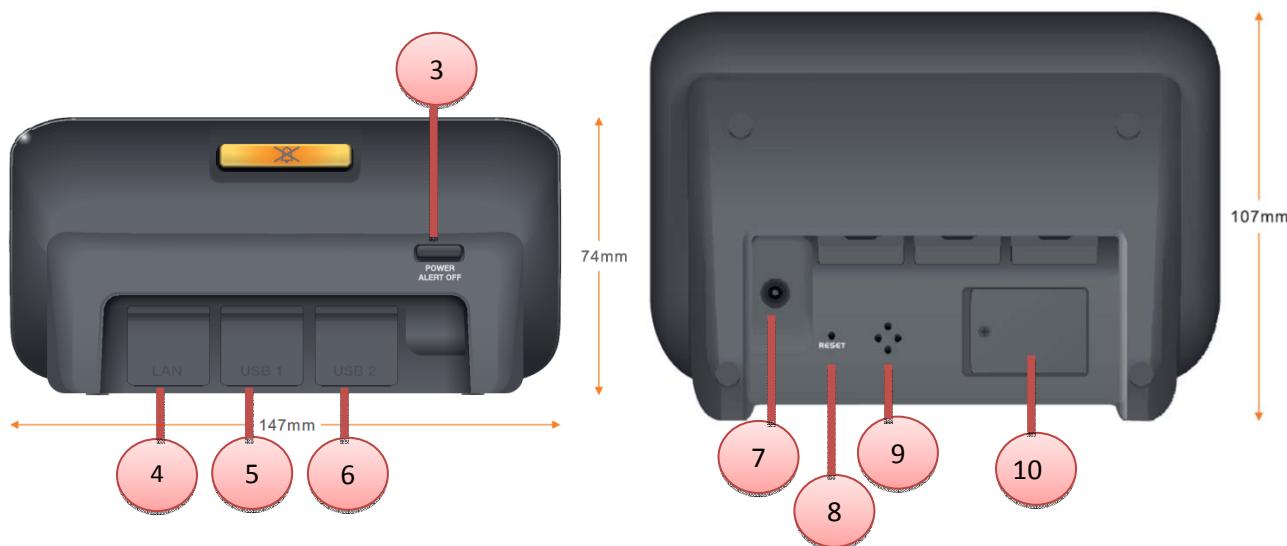
1. **Mute LED/Button:** This is application controlled. Intended to light Amber when there is something that user is required to take action on.
2. **Connectivity LED:** This is application controlled. Intended to light Blue when data is exchange to a remote sensor or the server or Amber when there is an error.
3. **Notification LED:** This is application controlled. Intended to light Blue when there is an informational message to the user or Amber when there is an error.
4. **Home Button/LED:** This is application controlled. Touch and hold to display recent applications. Intended to light Blue when the LCD display is lit.
5. **Power Button/LED:** This is application controlled. Press and hold to turn the Hub on or off. Intended to light Blue when the device is powered on and system ready or Amber when there is an error.

2.3 Side View



1. **SIM Card Slot** – Supports mini SIM card for cellular service.
2. **Micro SD Card Slot** – Micro SD – Supports up to 32GB

2.4 Back View



3. **Power Alert Off Button** – If the hub is abruptly disconnected from power, the Power Loss Alert will sound. This button silences the Power Loss Alert sound until the next abrupt disconnect is triggered.
4. **LAN Connection** – Supports Ethernet 10/100 mbps
5. **USB1 Slot** - Supports USB 2.0 Host
6. **USB2 Slot** – Supports USB On-The-Go through optional cable accessory
7. **Wall adapter plug-in** – Power connection for Hub
8. **Reset** – Clears any lock-up conditions that may occur from improper use.
9. **Speaker** – This is application controlled for single channel melodies and sounds.
10. **User-Serviceable Battery** – This is a CR2032 which manages the Power Loss Alert.

3. Specifications

FEATURE	DESCRIPTION
Display size	3.5"
Display type	TFT, Color LCD with a Capacitive touch screen
Display resolution:	480x320
WiFi	802.11b/g compatibility
Bluetooth	2.1+EDR compatibility Low Energy
Cellular	3G
Card Slots	Mini SIM card slot Micro SD card slot Slots access to be restricted by means of a cover which is flush with the housing
LEDs	Dual-color LED capable of "Blue" and "Amber" colors labeled "Notification" Dual-color LED capable of "Blue" and "Amber" colors labeled "Connectivity" Dual-color LED capable of "Blue" and "Amber" colors behind power button. The LED(s) to provide uniform color appearance. Single color LED capable of "Amber" color- behind Mute button that also shines through the front of the unit through a half-moon frosty clear-white opening. Single-color LED capable of "Blue" color behind "Home Button" Blue LEDs to provide brightness of 90-175 millicandles. Amber LEDs to provide brightness of 175-300 millicandles.
Buttons	Power Button. Home Button Mute Button. Mute button shall not exhibit an audible clicking sound when pressed. Loss of Power Silence Button labeled "Power Alert Off" A recessed Reset Button labeled "Reset"
Ports	USB 1: USB 2.0 Type A Host Port USB 2: USB 2.0 mini-USB OTG Port IMPORTANT: During USB loading test, USB1 terminal was loaded with 5,0 V d.c., 300 mA, USB2 terminal was loaded with 5,0 V d.c., 300 mA LAN: 10/100Mbps RJ-45 Ethernet port. Rubber flaps shall cover ports when ports are not in use. Port covers shall be labeled "USB 1", "USB 2", and "LAN"
Audio/Buzzer	System shall be capable of providing an audio alert which can be varied in the range from 0-85 dB. The alert shall not activate upon execution of a proper power-off (shut down).
Power Loss Detection Circuit	The unit shall have a power loss detection circuit which will provide an audio alert in the event of power loss. Upon sudden power loss, the unit shall return to the current status (including time/date) after power is restored.
Power Loss alert Battery	Type: Primary Cell, Lithium CR2032 Compliance: IEC 60086-4
CAUTION RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS	

FEATURE	DESCRIPTION
Backup Battery	Type: Rechargeable Lithium-Ion, Non-Serviceable
	Automatically powers down the unit after removing power
	Maintains the Internal Real-Time-Clock to preserve the date and time
Reset Circuit	The unit shall have a reset circuit which will clear the state of the UPS
Power Supply Unit (PSU)	Classification: Class II Equipment
	Rated Voltage: 100 VAC to 240 VAC
	Rated Frequency: 50HZ/60HZ
	AC Mains Plug: Interchangeable AC Clip compatible with US (NEMA 1-15), Continental Europe (CEE 7/16) and UK (BS 1363) markets.
	Manufacturer : Helms-Man Transformers Co., Ltd Model no: SCE0501500P Input : 100V-240V ~50-60Hz 300mA Output: 5V , 1500mA
Power On	Unit will automatically power-on after inserting power adapter, or after depressing power button for 1 second (maximum) from the powered-off state.
Operating Conditions	Temperature: 5°C to 40°C Relative Humidity: 15% to 85% RH (non-condensing) Atmospheric Pressure: 520 mmHg to 795 mmHg
Storage/Transportation Conditions	Temperature: -5°C to 40°C Relative Humidity: 15% to 95% RH (non-condensing) Atmospheric Pressure: 520 mmHg to 760 mmHg

4. Cleaning and maintenance

Important: Always turn the hub off and disconnect any cables before cleaning the hub device.

The Hub device can be rinsed with a soft cloth moistened with a mild detergent and wiped dry with a soft, dry cloth or paper towel. Never use strong, caustic detergents as these may cause damage to the synthetic parts. Also, never use diluents, alcohol or kerosene to clean the device.

5. Safety and electrical devices

1. This IEC 60950 approved equipment is designed for use outside of patient environment. The patient environment is defined as an area 1.5 meters (4.92 feet) from the patient per IEC 60601-1.
2. Accessory equipment connected to digital interfaces must comply with the respective IEC standards (e.g. IEC 60950 for data-processing equipment and IEC 60601-1 for medical equipment). Furthermore all configurations must comply with the system standard IEC 60601-1-1. Anyone who connects additional equipment to the signal input part or signal output part configures a medical system, and is therefore responsible that the system complies with the requirements of system standard IEC 60601-1-1.
3. A user must not allow Signal Input/Output Parts (SIP/SOPs) and the patient to come into contact with one another at the same time.
4. When the device is not used, store the unit in a dry place away from direct sunlight.
5. If the device has been stored at very low temperatures near the freezing point, please allow it to obtain room temperature before using it again.
6. Do not attempt to open the device or adjust the inner parts yourself. Doing so will terminate the product warranty and may cause damage.
7. The unit contains no user-serviceable parts.
8. Do not immerse the device in water or other liquids as this will cause damage to the device. If it comes in contact with water, dry it immediately with a soft lint-free cloth.
9. Do not subject the unit to excessive force, shock, vibration, dust, temperature changes, or humidity. Such treatment may result in malfunction, a shorter electronic life span, or distorted parts.
10. The device is intended for use in private households only.
11. The device must be stored and operated at temperatures indicated on specification.

6. Protecting the environment



This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling. (WEEE explanation)

7. Regulatory

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class **【B】** digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme

NMB-003 du Canada.

Ce matériel est conforme aux limites établies par IC en matière d'exposition aux radiofréquences dans un environnement non contrôlé. Ce matériel doit être installé et utilisé à une distance d'au moins 20 cm entre l'antenne et le corps de l'utilisateur. L'émetteur ne doit pas être placé près d'une autre antenne ou d'un autre émetteur, ou fonctionner avec une autre antenne ou un autre émetteur.

The Hub device has been tested by a test lab accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. All documents are available upon request.

7.1 Safety

Testing	Results
IEC 60950 for US and EU markets	Pass
NRTL certified to IEC 60950 for the USA market	Pass
EMC/EMI for IT equipment used in residential environments for the USA and EU market	Pass
IEC 60601-1-2:2007 Radiated Immunity (IEC 61000-4-3) for a level of at least 10 V/m	Pass
Leakage current in IEC 60601-1:2005/A1:2012 clause 16	Pass
RoHS Directive 2011/65/EU of the European Parliament	Pass
Radio Type Approvals	Pending Approvals

7.2 Radio Type Approvals

Testing	Results
FCC radio type approvals for the USA market, including: <ul style="list-style-type: none"> Wifi/BT/BLE: 47 CFR Part 15, Subpart C (Section 15.203, 15.207, 15.247 and 15.249) Tested per ANSI C63.4-2003, ANSI C63.10-2009 GSM/GPRS: FCC part 22 and part 24 	Pending Approval
RT&TTE directive for the EU market <ul style="list-style-type: none"> ETSI EN 300 328 ETSI EN 300 440 ETSI EN 300 683 ETSI EN 300 489 	Pending Approval
802.11 WPA2, WPA and WEP compliant	Pass
USA PTCRB (ATT 3G module) compliant	Pending Approval
Bluetooth Classic 2.1+EDR and BLE Single Mode 4.0 compliant	Pass

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