

# User manual for AW-AU397 module integration

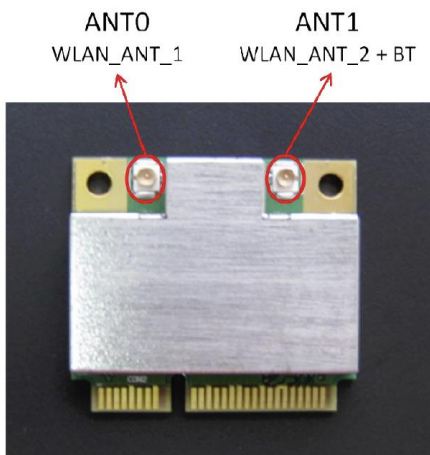
## 1 Purpose

The purpose of this document is to provide information on how to install the AW-AU397 module in B&O products.

The AW-AU397 W-LAN module is only intended for integration into end host products by B&O authorised personnel only. Incorrect integration or use may infringe compliance rule meaning recertification is required.

## 2 Module description

The module is an IEEE 802.11a/b/g/n 2X2 MIMO WLAN & Bluetooth module based on a Marvell chip. The module is designed to be plugged into a Mini PCI-E 52P connector, which contains all the interfaces and power connection. Additionally, the module has two UFL antenna connectors. See picture below.



### 3 Integration in B&O products

The AW-AU397 module will be integrated in both audio and video products from B&O. A similar Mini PCI-E connector is used as interface and the antennas inside the product are connected to the UFL connectors at the module.

#### 3.1 Module Integration Details

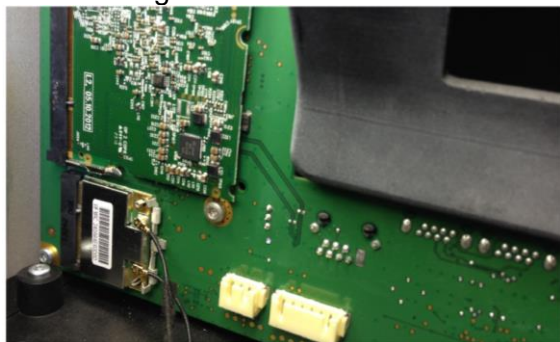
Use the respective B&O build/assembly instructions for mounting and connecting the module into each B&O product type. This will ensure correct working of the module and will ensure it will not be collocated with any other transmitter/antenna if these instructions are followed.

#### 3.2 Audio Devices

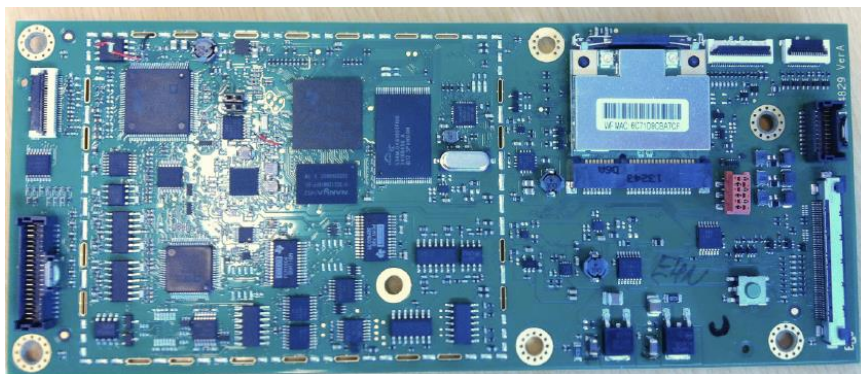
In B&O audio products the AW-AU397 module can be installed in two different ways:

1. Stand-alone integration
2. Audio Streaming Engine mounted

An example of stand-alone integration is shown in the following photos with the AW-AU397 module integrated in the BeoSound Moment end product:



An example of the Audio Streaming Engine integration is shown in the following photo:



#### 3.3 Audio Device Antennas

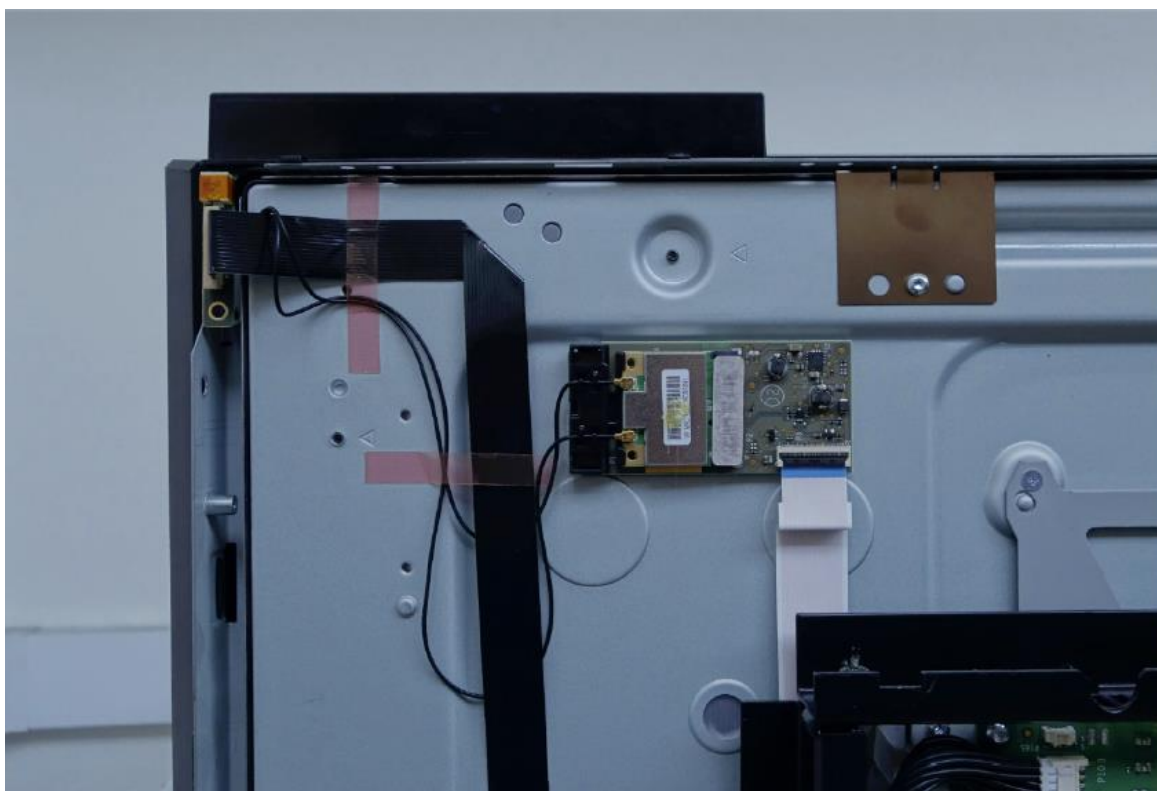
The AW-WU397 module when integrated into Audio Devices will use the Tyco Puck antenna, part no.1513472-5, with a frequency range of 2,400 - 2,483.5 MHz & 5,150-5,875 MHz and peak gain of +3 dBi.

If other radio systems are integrated in the product, it is required to keep minimum 20cm separation distance between any antenna from other radios and each of the antennas connected to AW-WU397.

The module must not be integrated in portable devices to be used in direct contact with the body of the user or within 20cm of the body of the user under normal operating conditions.

### 3.4 Video Devices

In Video Devices the AW-AU397 module will be mounted on a small interface board with a cable connection to the Video Engine. The interface board provides good flexibility for placing the module in an optimum position keeping antenna cables short. See picture.



#### 3.4.1 Video Device Antenna

The AW-AU397 module when integrated into video products will use the B&O BO AirWire antenna with a frequency range of 2,400-2,483.5 MHz & 5,150-5,875 MHz and a peak gain of +4.2 dBi.

If other radio systems are integrated in the product, it is required to keep minimum 20cm separation distance between any antenna from other radios and each of the antennas connected to AW-WU397.

The module must not be integrated in portable devices to be used in direct contact with the body of the user or within 20cm of the body of the user under normal operating conditions.

## 4 End Product Labelling

A label is to be fitted to the exterior of all products containing the AW-AU397 module. The label must include the words “Contains FCC ID: TTUAW-AU397” (for FCC) or “Contains IC: 3775B-AWAU397” (for IC).

Examples of B&O Audio and Video product labels and placement locations are in the following sections.

### 4.1 BeoSound Moment:

#### 4.1.1 Label

型号:	BeoSound Moment	CE	!	产品名称: 便携式音箱	CCC	20	2000	SSS
产品名称:	无线数字音乐播放器			电压: 100-240V~				
生产者:	Bang & Olufsen a/s			频率: 50/60Hz				
捷克共和国制造				消耗功率: 20W				
管理号	Type No.: xxxx			产地: 捷克				
类别号	Item No.: xxxxxxxx			商標: BANG & OLUFSEN				
产品序列号	Serial No.: xxxxxxxx			進口商: 丹意企業有限公司 (02)27815958				
	100-240V ~ 50/60Hz			地址: 10656 台北市仁愛路3段123巷9弄8號1樓				
额定功率	Power consumption: 20W			Contains FCC ID: TTUAW-AU397				
	Acc.: xxxx			Contains FCC ID: UA9500				
	Mac Addr.: xx-xx-xx-xx-xx-xx-xx			Contains IC: 3775B-AWAU397				
销售商: 班安欣贸易(上海)有限公司				Contains IC: 9129A-500				
地址: 上海市包头路1135弄3号2016室								
Designed by Bang & Olufsen® in Denmark.								
Made in Czech								

CAUTION  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN  
AVIS  
Risque de choc électrique ne pas ouvrir

C US TIS.1195-2536








CMIIT ID: 2014AJ2825  
ETA No.: NER-ETA/552  
ETA No.: NER-ETA/554

#### 4.1.2 Location



## 4.2 BeoVision Avant:

### 4.2.1 Label

<p>Model: BeoVision Avant 55                  Bang &amp; Olufsen®                  Denmark                  Type No.: xxxx                  Item No.: xxxxxxxx                  Serial No.: xxxxxxxx                  Acc.: xxxxxxxx                  100 - 240V ~ 50/60Hz                  Powerconsumption: XXXW                  Mac Addr.: XX-XX-XX-XX-XX-XX</p>	 <p>For DTS patents, see <a href="http://patents.dts.com">http://patents.dts.com</a>.</p> <p>• Used only on ranged voltage                  • Please contact A/S Center for repair                  Product: 액정 텔레비전 (LCD TV)                  제조국: 세코 공회국                  A/S 센터: (02) 3446 2905                  인증번호: XWxxxxxx - xxxxxx                  KCC-RMM-BOA-BBBBBBBBBBBBBB</p>	 <p>Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.</p>   
 <p>Designed by Bang &amp; Olufsen                  in Denmark                  Made in Czech</p>	<p>123ABCD123456</p> <p><b>CAUTION</b>                  RISK OF ELECTRIC SHOCK                  DO NOT OPEN</p> <p>Complies with AVIS                  IDA Standards DB100918</p>  <p>XXXXXX - XX</p>	<p>“ご注意”感電防止のため、キャビネットを開けないでください。万一故障の場合は、最寄のサービスセンター/営業所 または、お買上げの販売店に修理をご依頼ください。</p> <p>Contains FCC ID: TTUAW-AU397                  Contains IC: 3775B-AWAU397                  Contains FCC ID: UA9500                  Contains IC: 9129A-500</p> <p>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.</p>

### 4.2.2 Location



## **FCC Compliance**

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 module must not be co-located or operating in conjunction with any other antenna or transmitter.

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 antenna & user's body. In the United States, operation on channels 36-48 in the 5150-5250 MHz band is restricted to indoor-use only.

If the FCC ID of the module is not visible when installed in the intended host equipment, then a permanently attached or marked label must be displayed on the exterior of the host equipment referring to the module FCC ID.

## **Industry Canada Compliance**

This device complies with Industry Canada licence-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.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. 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 (IC ID: 3775B-AWAU397) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type 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.

1) (Puck) Tyco; Part No. 1513472-5; Frequency Range: 2,400 - 2,483.5 MHz & 5,150 - 5,875 MHz; Gain (Max) +3 dBi,

2) (V100) B&O; Part No. BO AirWire; Frequency Range: 2,400 - 2,483.5 MHz & 5,150 - 5,875 MHz; Gain (Max) +4.2 dBi

Please note that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250- 5350 MHz and 5650-5850 MHz and these radars can cause interference and/or damage to LE-LAN (License Exempt Local Area Network) devices.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the antenna and your body.

Cet appareil est conforme au(x) standard(s) RSS exempt(s) de licence d'Industrie Canada. Son fonctionnement est sujet aux deux conditions suivantes:

(1) cet appareil ne doit pas occasionner d'interférence et (2) cet appareil doit supporter toutes les interférences, y compris celles qui pourraient provoquer un mauvais fonctionnement de cet appareil.

Compte tenu des règles mises en place par Industrie Canada, cet émetteur radio ne peut fonctionner qu'à l'aide d'une antenne dont le type et le gain maximal ont été approuvés par Industrie Canada. Afin de réduire le risque d'interférence radio avec les autres utilisateurs, le type d'antenne et son gain doivent de préférence être choisis de manière à ce que la puissance isotrope rayonnée équivalente (PIRE) ne dépassent pas le niveau nécessaire à une communication efficace.

Cet émetteur radio (IC ID: 3775B- AWAU397) a été approuvé par Industrie Canada dans le cadre d'une utilisation avec les types d'antennes repris ci-après, avec le gain maximum autorisé et l'impédance requise indiqués au regard de chaque type d'antenne. L'utilisation de types d'antennes non repris dans cette liste ou dont le gain est supérieur à celui indiqué pour leur type est strictement interdite en conjonction avec cet appareil.

1) (Puck) Tyco; Part No. 1513472-5; Frequency Range: 2,400 - 2,483.5 MHz & 5,150 - 5,875 MHz; Gain (Max) +3 dBi,

2) (V100) B&O; Part No. BO AirWire; Frequency Range: 2,400 - 2,483.5 MHz & 5,150 - 5,875 MHz; Gain (Max) +4.2 dBi

Please note that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250- 5350 MHz and 5650-5850 MHz and these radars can cause interference and/or damage to LE-LAN (License Exempt Local Area Network) devices.

Cet appareil est conforme aux limitations de la norme IC RSS-102 concernant l'exposition aux radiations dans un environnement non contrôlé. Cet appareil doit être installé et utilisé avec une distance minimale de 20 cm entre l'antenne et le corps de l'utilisateur.

**BANG & OLUFSEN**