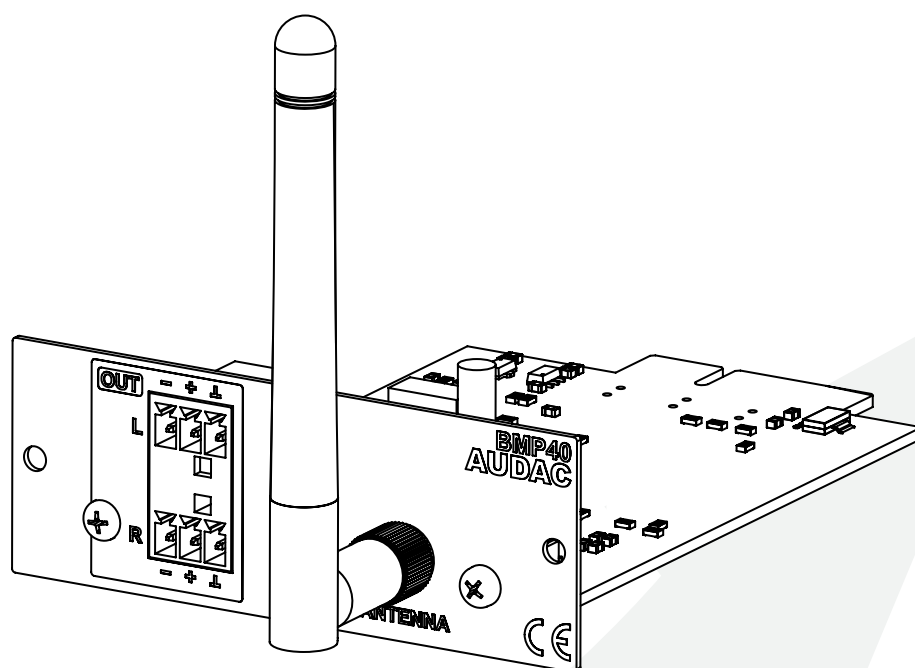


# BMP40



## ADDITIONAL INFORMATION

This manual is put together with much care, and is as complete as could be on the publication date. However, updates on the specifications, functionality or software may have occurred since publication. To obtain the latest version of both manual and software, please visit the Audac website @ [www.audac.eu](http://www.audac.eu).



<b>Introduction</b>	<b>04</b>
SourceCon™ Bluetooth receiver module .....	04
<b>Precautions</b>	<b>06</b>
<b>Chapter 1</b>	<b>08</b>
Connections and connectors .....	08
<b>Chapter 2</b>	<b>09</b>
Overview BMP40 .....	09
<b>Chapter 3</b>	<b>010</b>
Using the BMP40 .....	010
Module screen .....	010
Player mode .....	011
Settings screen .....	012
<b>Chapter 4</b>	<b>013</b>
Installing the BMP40 .....	013
<b>Technical specifications</b>	<b>015</b>

## SourceCon™ Bluetooth receiver module

The BMP40 is a professional Bluetooth receiver module featuring SourceCon™ modular technology. This unique technology guarantees true plug & play implementation to any compatible device. When inserted to a supporting slot, the module is instantly installed, discovered and ready for operation without requiring any additional internal wiring or complex configuration.

The BMP40 receiver offers wireless connection possibilities for audio playback from any Bluetooth compatible portable device including laptops, smartphones, tablets or any other. A long range transmission distance (up to 30 meters) is possible depending on the installed environment. Device discovery and pairing protection with a storage up to 8 authorized devices shall prevent playback from unauthorized users in public areas.

All media information such as track and artist information can be retrieved from the BMP40 (if supported by the connected device, more info on P15: technical specifications), while playback control is possible from the connected device or remote control.

The antenna input is implemented by an SMA-type (50  $\Omega$ ) connector on its panel, allowing connection of the included (2 dBi) antenna while extension is possible in situations where its installed in a closed / shielded cabinet. The balanced stereo line output is connected through two 3-pin terminal block connections.

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.

Note: 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.

Note: The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. such modifications could void the user's authority to operate the equipment. The OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed

**IMPORTANT NOTE:** In the event that these conditions cannot be met (for example co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not 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.

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 user's manual of the end product which integrates this module. The BMP40 module is designed to comply with the FCC statement. FCC ID is 2AVCN-BMP40. The host system using BMP40, should have label indicated it contain modular's FCC ID: 2AVCN-BMP40. The device has been evaluated to meet general RF exposure requirement. To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20 cm between the radiator and your body, and fully supported by the operating and installation configurations of transmitter and its antenna(s).

## POWER SUPPLY AND POWER CORD REQUIREMENTS

### Power supply class I grounding requirements:

For protection from fault currents, the equipment shall be connected to a grounding terminal. Plug the system power cord into an AC outlet that provides a ground connection. Substitute cords may not provide adequate fault protection. Only use the power cord supplied with this product or an authorized/equivalent replacement

### Safety notices:

**Denmark:** Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.

**Finland:** Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.

**Norway:** Apparatet må tilkoples jordet stikkontakt.

**Sweden:** Apparaten skall anslutas till jordat uttag.

## ATTENTION

The fuse (T500mAL/250V) provides a safeguard function to the device. When replacing the fuse, make sure that the value of the replacement matches the value of the original fuse. Identification of a suitable replacement component or substitute shall be done by qualified technicians.

## READ FOLLOWING INSTRUCTIONS FOR YOUR OWN SAFETY

ALWAYS KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE. NEVER THROW THEM AWAY

ALWAYS HANDLE THIS UNIT WITH CARE

HEED ALL WARNINGS AND FOLLOW ALL INSTRUCTIONS

AVOID ELECTROSTATIC DISCHARGE BY TOUCHING GROUNDED POINT BEFORE REMOVING THE MODULES FROM THEIR PROTECTIVE BAG

AVOID TOUCHING OF THE COMPONENTS ON THE CIRCUIT BOARD DIRECTLY

NEVER EXPOSE THIS EQUIPMENT TO RAIN, MOISTURE, ANY DRIPPING OR SPLASHING LIQUID. NEVER PLACE AN OBJECT FILLED WITH LIQUID ON TOP OF THIS DEVICE

DO NOT INSTALL THIS UNIT NEAR ANY HEAT SOURCES SUCH AS RADIATORS OR OTHER APPARATUS THAT PRODUCE HEAT

DO NOT PLACE THIS UNIT IN ENVIRONMENTS WITH A HIGH LEVEL OF DUST, HEAT, MOISTURE OR VIBRATION

THIS UNIT IS DEVELOPED FOR INDOOR USE ONLY. DO NOT USE IT OUTDOORS

ONLY USE ATTACHMENTS & ACCESSORIES SPECIFIED BY THE MANUFACTURER.

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME

CAREFULLY CHECK THE UNIT'S CONDITION AFTER UNPACKING. IF THERE IS ANY DAMAGE TO THE CARTON BOX OR THE UNIT ITSELF, INFORM YOUR VENDOR IMMEDIATELY.

ONLY CONNECT THIS UNIT TO A MAINS SOCKET OUTLET WITH PROTECTIVE EARTHING CONNECTION

THE INSTALLATION, CONNECTION AND CONFIGURATION OF THE DEVICE SHOULD BE DONE BY QUALIFIED TECHNICIANS



### CAUTION - SERVICING

This product contains no user serviceable parts. Refer all servicing to qualified service personnel. Do not perform any servicing (unless you are qualified to)



### EC DECLARATION OF CONFORMITY

This product conforms to all the essential requirements and further relevant specifications described in following directives: 2014/30/EU (EMC) and 2014/35/EU (LVD)



### WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

The WEEE marking indicates that this product should not be disposed with regular household waste at the end of its life cycle. This regulation is created to prevent any possible harm to the environment or human health.

This product is developed and manufactured with high quality materials and components which can be recycled and/or reused. Please dispose this product at your local collection point or recycling centre for electrical and electronic waste. This will make sure that it will be recycled in an environmentally friendly manner, and will help to protect the environment in which we all live.

### CAUTION

The symbols shown are internationally recognized symbols that warn about potential hazards of electrical products. The lightning flash with arrow point in an equilateral triangle means that the unit contains dangerous voltages. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the users manual.



These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

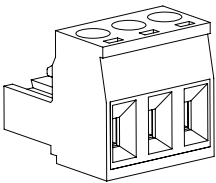
## Connections and connectors

### CONNECTION STANDARDS

The in- and output connections for AUDAC audio equipment are performed according to international wiring standards for professional audio equipment

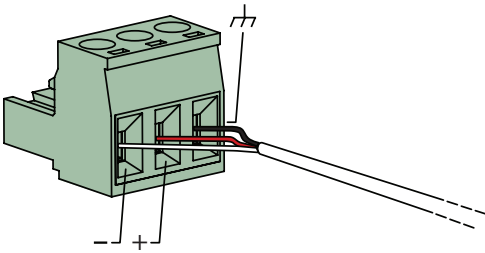
#### 3-Pin Terminal block:

For unbalanced line input connections

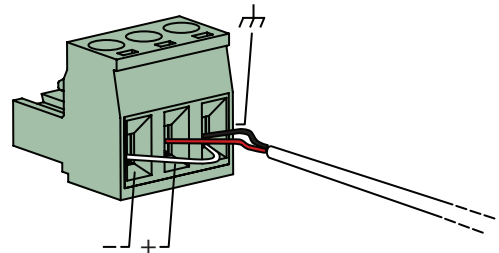


**Left:** Signal - (XLR Pin 3)  
**Center:** Signal + (XLR Pin 2)  
**Right:** Ground (XLR Pin 1)

For balanced signal input connections

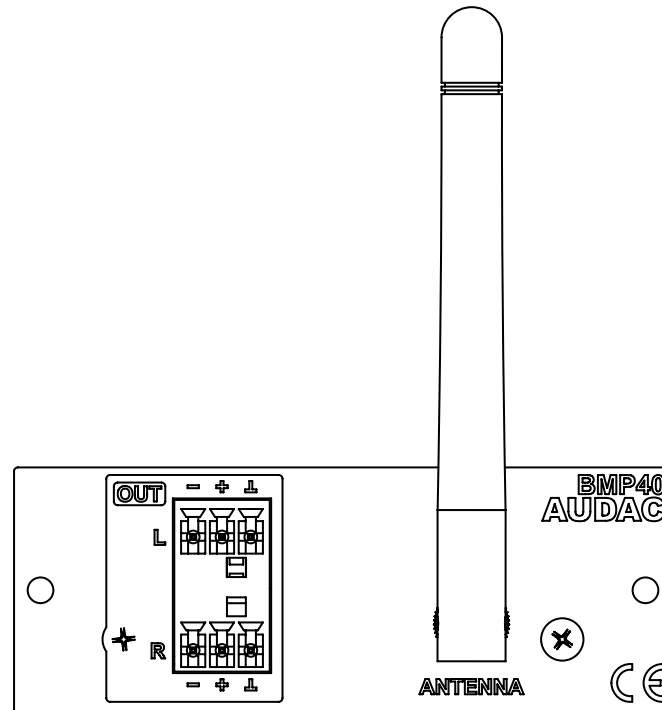


For balanced signal input connections





## Overview BMP40



The BMP40 is a SourceCon™ compatible module featuring an (internal) board-edge connector which carries all signals for getting it connected to any supporting main unit.

All external in & output connections shall be made using the available connectors on the panel.

### 1) Balanced stereo line output:

The balanced stereo line output is implemented using two 3-pin terminal block connectors. The audio output available on this connector allows it to be fed to any amplifier or pre-amplifier.

### 2) SMA-type antenna connection:

The antenna (input) connection is implemented using an SMA-type (male) connector where to the supplied antenna should get connected. Depending of the installation conditions (e.g. when installed in a closed / shielded cabinet), it can be extended using optional available accessories for optimal reception conditions.

## Using the BMP40


Since the BMP40 is a SourceCon™ module, it can be combined with a variation of supporting main units. The operation and configuration interface might be different of the unit where installed, however the offered functionality is identical. Some devices will support control and configuration through a front panel graphical control interface on a display, while others are also supporting web-control.

This manual describes the control configuration possibilities using front panel control. For applications where more control possibilities are offered, check the instruction manual of the used main device for more instructions.


## Module screen

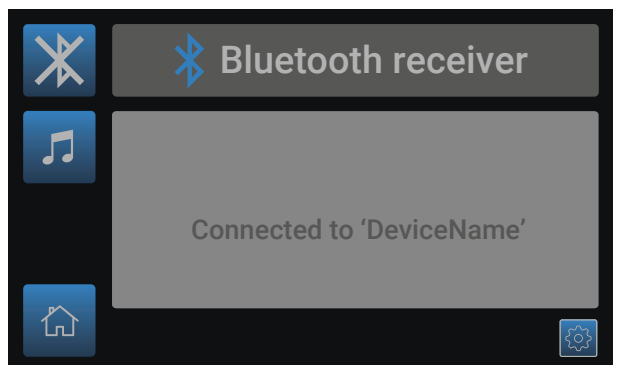
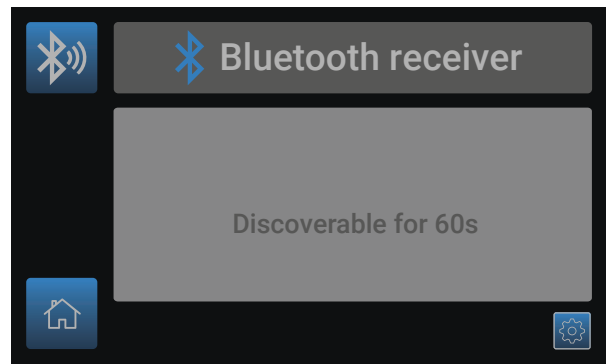
### Connecting:

The main module screen of the BMP40 indicates the connection status of the receiver. To avoid audio playback by unauthorized users in public installations, transmitter and receiver pairing is required when connecting for the first time.


When transmitter and receiver haven't been paired before, the receiver won't be discoverable from the transmitting device. For making it discoverable, press the  button. Subsequently, the receiver is discoverable and allows connection for about 60 seconds from any transmitting device.

Once connected, the main module screen displays the name of the connected device and it will become undiscoverable for other devices.

Once both transmitter and receiver have been paired, the receiver will remain connectable for that particular transmitter, even when the  connection button hasn't been pressed. The BMP40 memory stores up to 8 authorized device ID's.




### Player:

The  (player) button gets you to the player mode screen where track information is displayed (if supported by the connected transmitter) and previous or next audio track selection can be done.

### Home:

The  (home) button gets you back to the main screen of the device where the BMP40 is installed to.

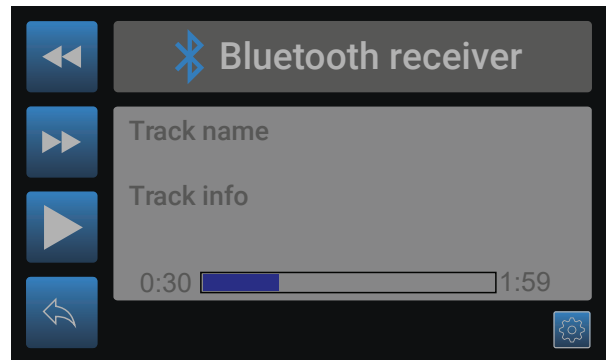
### Settings:

The  (settings) button is selected through pressing the rotary selection dial. This button gets you to the settings menu of the BMP40 where all configurations can be made.

## Player mode

In this screen, all available media information about the currently playing files is shown including track, artist or any other information, while previous and next audio track selection can be done.

Note that the displayed information in this screen depends on the supported functions of the connected transmitter.



### Track selection:

The playing track can be selected by pressing the ◀◀ (previous track) and ▶▶ (next track) buttons. When selected, the first next supported track will be selected and start playing.

### Play / pause:

Toggling between play and pause is done by pressing the play/pause button with ▶ (play) or || (pause) symbols. Depending on the current mode, the displayed symbol on the icon will toggle.

### Return:

The ↶ (return) button gets you back to the main module screen of the BMP40.

## Settings screen

The settings menu for BMP40 can be loaded by pressing the rotary selection dial.

### Output gain:


The gain can be adjusted within a range of +8 dB and -82 dB, allowing optimization of the output level according to the input sensitivity of the connected amplifier or pre-amplifier. For adjusting the output gain, rotate the function dial until 'Gain' is highlighted and press it for proceeding to the gain settings. The level can be adjusted by rotating clockwise (tuning up) or counter-clockwise (tuning down). Press the rotary dial for confirming the currently set output level.



### Connected:

Information about the connected transmitting device is shown when highlighted 'Connected'. This menu includes the device name and Mac address. Press the rotary selection dial twice for disconnecting the currently connected device.

### Paired:

8 device ID's of recently paired transmitters are stored as authorized devices and shown in this list. These authorized devices are allowed for direct pairing with the BMP40 without making it discoverable. (without pressing the  button in the main module screen)

Devices can be removed from this list by pressing the rotary dial when highlighted 'Paired', allowing browsing through the list. Select the device and press the rotary dial again to remove it from the pairing list. (Select OK to remove, or cancel to keep it)

### Info:

Gives an overview of the BMP40 Mac address and running software versions.

### Factory reset:

Factory reset will recall all settings to factory defaults and all previously made settings and configurations will be lost. After selecting factory reset, a confirmation will be asked whether all settings definitely need to be reset to factory defaults. When confirmed, all settings will be lost.

### Back:

Returning to the player mode screen is done by selecting 'Back'.

## Installing the BMP40

### CAUTION



Before installing the BMP40 to any SourceCon™ compatible device, make sure the power is switched off. Malfunctions or electrical shocks may occur otherwise.

### Step 1:

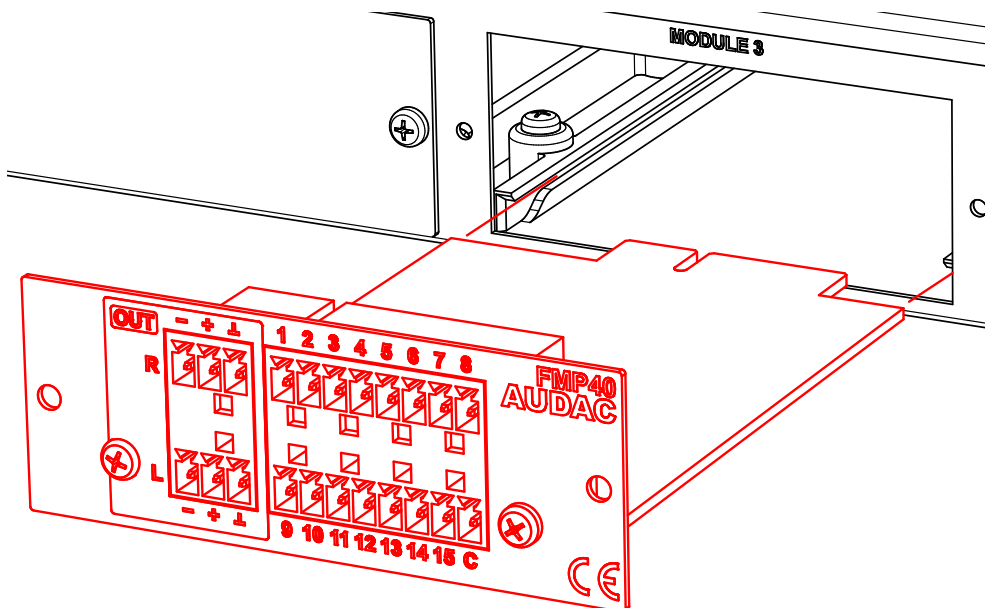
Make sure that the slot where to the module should be installed is open and ready for installation. Depending of the main unit, some module slots will be covered by blind panels when delivered. The corresponding blind panels should be removed by releasing the screws on both ends.

### Step 2:

Before removing the modules from their protective bag, we recommend touching a grounded metal chassis (or any other grounded point) to prevent electrostatic discharges affecting the sensitive electronic components. It is recommended to always hold the module card by the metal connection panel and avoid touching of the components on the circuit board directly.

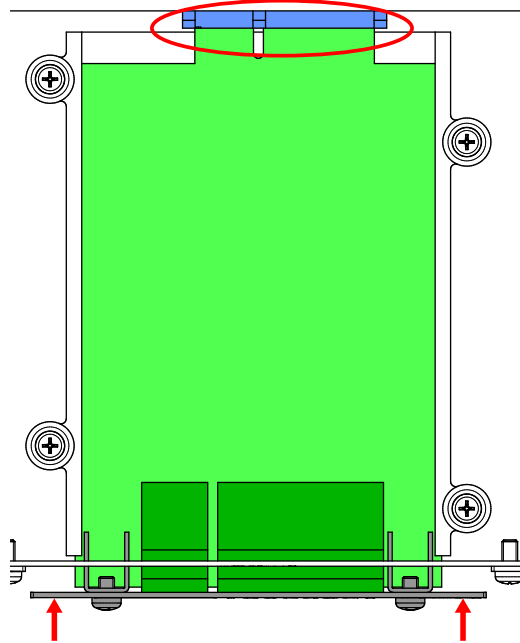
### Step 3:

Align both edges of the module with the guide rails inside the slot and carefully insert the module into the slot. It should slide into the slot without any considerable resistance when well positioned into the guide rail.



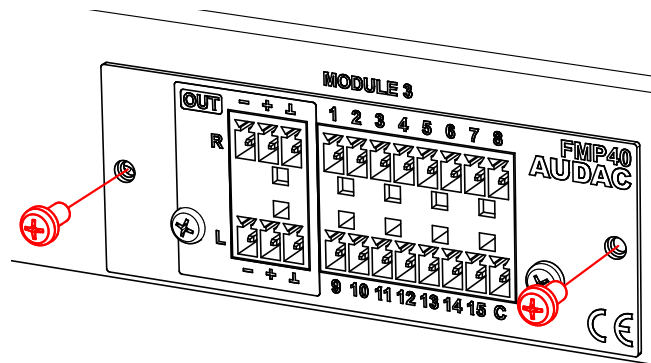
#### Step 4:

Some resistance might occur when the module's board edge connector reaches the connection counterpart on the main board. Gently push the module all the way into the slot to ensure that the contacts are correctly inserted. The module is well inserted when its connection panel touches the metal chassis of the main device where inserted to.



#### Step 5:

Fasten the module into the slot using the included screws. Be aware that damage or malfunctions may occur if the module is not correctly fastened.



#### Step 6:

Once the module correctly installed, the system can be powered-on and the module functionality will be automatically discovered.

# Technical specifications



Connection	SourceCon™ interface card slot
Input	SMA-type male antenna connection (50 $\Omega$ )
Output	Balanced stereo line output (2 x 3-pin Euro Terminal Block ~ 3.81 mm)
Output level	+8 dB ~ -82 dB (Software configurable)
Bluetooth receiver	Bluetooth spec V4.1 Class 2 output power
Power consumption	0.5 Watt
Dimensions (W x H x D)	87 x 34.5 x 114 mm
Weight	0.075 Kg
Packaging	Carton box
Shipping weight & Volume	1.08 Kg - 0.028 Cbm
Accessories included	2.4Ghz antenna (2 dBi)
Compatible devices	XMP44 Modular audio system
Optional Accessories	BAE100 Antenna extender kit

## NOTE

The BMP40 supports media information retrieval (track, artist, album, ... information) from the transmitter. This function is only supported with AVRCP V1.3 (or higher) compatible transmitters.

Caution:

This device complies with Part 15 of the FCC rules and Industry Canada license-exempt RSS standard(s). 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.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or change to this equipment. Such modifications or change could void the user's authority to operate the equipment.

This radio transmitter (identify the device by certification number or model number if Category II) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain 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.

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.

The device has been evaluated to meet general RF exposure requirement.

To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.