Wireless Speaker Amplifier

Owner’s Manual for OEM

Caution: This user guide information is only provided to OEM or module installer.
Do not supply to end user.
Connect speaker amplifier and speaker systems without Cables.
Model no.: B120

1. Introduction

The B120 Wireless Speaker Amplifier is a radio device that transmits and receives radio signals in accordance with the spectrum regulations for the 2.4GHz unlicensed frequency range. The following table shows a major function.

Frequency Band: 2403~2479MHz
Power Supply: DC 15V to the testing board
Channel Employed: 20 channels
Modulation Type: FHSS
Antenna Type: Dipole Antenna
Radio Frequency Chipset: WHAM2 Module

We have the following attestation to the eight requirements described by FCC public notice DA00-1407 "Part 15 Unlicensed Modular Transmitter Approval".

1. RF shielding.

The model (B120) has an own RF shielding.
The shielding is made by metal and completely added to RF part during our manufacturing. It is not easily removed module.
Please see exhibition external photos of this module.

2. Excessive data rates or over modulation.

The module circuit buffers all modulation and control of the transmitter.
The control of the transmitter is via data commands and software instructions contained within the module.
The transmitter is tested with the module operated at the maximum power. Data commands are reduced the power of transmitter but do not influence the modulation contents.

3. Power supply regulation.

The module has its own power supply regulator to insure compliance with part 15 requirements regardless of the quality or level of external DC supplying the module from the end product. Please refer to the attached schematics and diagrams.
The regulator operates within the +15Vdc±5%.

4. Antenna and unique coupler requirements to antenna connector.
The antenna is an integral type and there is no antenna connector for end product.
Please find" Declaration concerning Antenna Specification "for detail.
(1) No modification of antenna will be allowed.
(2) The end product must be certified by FCC, if customer will use the other antenna.

5. Stand--alone configuration.

The modular transmitter has been performed the testing as a stand alone and then confirmed the compliance.

6. Label with own FCC ID number and exterior label.

The module is labeled with own FCC ID number. Please see exhibition label sample for the FCC ID of this module. The label made by polyester sheet is affixed to the module by a high-strength adhesive.

Since the FCC ID number will not be visible when the module is installed inside the end product, there are instructions give to the OEM how to label the end product. Please refer to the" User Guide Information".

7. Compliant with any specific rule or operating requirements.

The module as manufactured is completely controlled by the onboard processor. There are no influences to the operation of the transmitter the end can induce that will operate the module outside of scope of the regulations. The necessary explanation for user to be complied with this requirement is contained on the manual.

8. RF exposure requirements.

This module may be installed into any end product mobile applications.
Because the module only radiates very low power levels, it complies with RF exposure requirements.

Federal Communication Commission Interference Statement

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this 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 device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

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

OEM integrator is still responsible for testing their and product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).
IMPORTANT NOTE: In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the IC authorization is no longer considered valid and the IC No. cannot 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 IC

authorization.

20cm minimum distance has to be able to be maintained between the antenna and the users for the host this module is integrated into. Under such configuration, the FCC radiation exposure limits set forth for an population/uncontrolled environment can be satisfied.

USERS MANUAL OF THE END PRODUCT:

In the users manual of the end product, the end user has to be informed to keep at least 20cm separation with the antenna while this end product is installed and operated. The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. If the size of the end product is smaller than 8x10, FCC part 15.19 statement is required to be available in the users manual: This device complies with Part 15 of 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.

LABEL OF THE END PRODUCT:

The final end product must be labeled in a visible area with the following "Contains TX FCC ID: R48-SUB-RX".

If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.