BT33 Bluetooth Module OEM General User and Installation Guide

I. OEM Usage Instructions

Installation

The BT33 is a surface mount Bluetooth module supplied on a 24 pin, 6-layer PCB. The final assembly recommended reflow profiles are:

For RoHS/Pb-free applications, Sn96.5/Ag3.0/Cu0.5 solder is recommended.

- Maximum peak temperature of 230° - 240°C (below 250°C).
- Maximum rise and fall slope after liquidous of < 2°C/second.
- Maximum rise and fall slope after liquidous of < 3°C/second.
- Maximum time at liquidous of 40 – 80 seconds.

Layout

The area around the BT33 module should be free of any ground planes, trace routings, or metal for at least 6mm from the antenna in all directions. Traces should not be routed underneath the module.

Crystal Tuning and Power Calibration

These steps are performed by the manufacturer, and must NOT be modified from the settings applied during manufacturing. Any changes to these settings may void the user's authority to operate this equipment.

Operating Conditions

The permitted operating and storage temperatures, power supply requirements, and I/O tolerances are specified in the *BT33 Datasheet.*

RF Exposure Warning

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. This device must be installed in accordance with provided instructions and it must be operated with a minimum of 20 cm spacing between antennas and all persons' bodies (excluding extremities of hands, wrists and feet) during wireless mode of operation. Further, this transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

II. Notice of FCC and IC Regulatory Compliance

This module has been tested and found to comply with the FCC Part15 Rules. These limits are designed to provide reasonable protection against harmful interference in approved installations. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance the instructions, may cause harmful interference to radio communications.

The final product must be submitted to Amp'ed RF for confirmation that the final product is in compliance with the RF emissions found for the single module. However, there is no guarantee that interference will not occur in a particular installation.

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.

In Canada, operation is subject to the following two conditions:
(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device

Industrie Canada:
Le fonctionnement de l' appareil est soumis aux deux conditions suivantes:
1. Cet appareil ne doit pas perturber les communications radio, et
2. cet appareil doit supporter toute perturbation, y compris les perturbations qui pourraient provoquer son dysfonctionnement.

Modifications or changes to the module not expressly approved by Amp'ed RF Technology Inc. may void the user's authority to operate this equipment.

III. Modular Approval

FCC ID: X3ZBTMOD4
IC: 8828A-MOD4

In accordance with FCC Part 15 and RSS-210, the BT33 is listed above as a Modular Transmitter device.

In support of the Limited Modular Transmitter Approval, the following is stated:

1) The module does have buffered modulation / data inputs.
2) The module does regulate its own power supply.
3) The module does have a permanently attached antenna.
4) The module can be tested as a stand-alone device.

5) The module is labeled with the proper FCC ID and IC number, and labeling instructions are provided to OEM end users for external product labels.
6) The module does have instruction for proper use.
7) The module does meet the FCC and IC RF regulations.

Limited Modular Transmitter Approval, is supported, instead of Modular Transmitter Approval, because the following condition is not met:

1) The module does not have its own RF shielding.

Therefore, the final host product must be submitted to Amp'ed RF for confirmation that the installation of the module into the host is in compliance with the regulations of FCC and IC Canada.

IV. FCC Label Instructions

The outside of final products that contain a BT33 device must display a label referring to the enclosed module. This exterior label can use wording such as the following: “Contains Transmitter Module FCC ID: X3ZBTMOD4” or “Contains FCC ID: X3ZBTMOD4.” Any similar wording that expresses the same meaning may be used. An example of this label is figure 1 below:

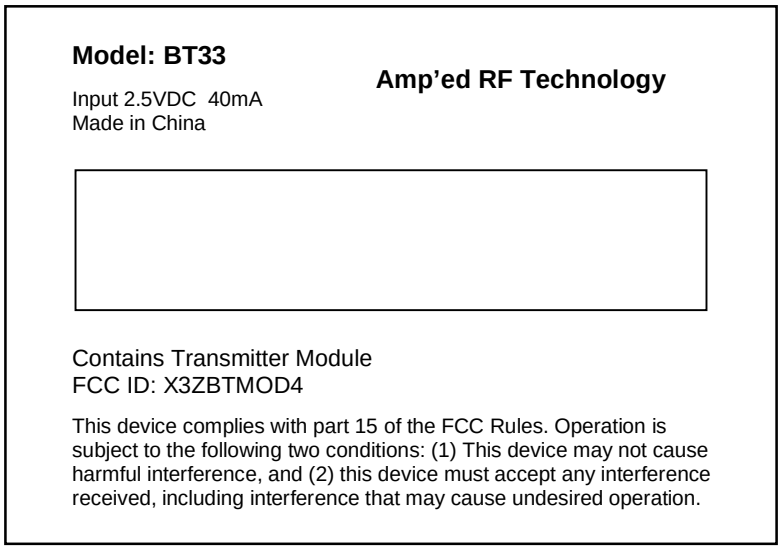

Figure 1: External Device FCC Label Sample

If the product is to be sold in Canada, then This exterior label should use wording such as the following: “Contains Transmitter Module IC: 8828A-MOD4”