



Zivix LLC Bluetooth MIDI Module ZXB16

Operation Manual 02-17-15

Description

The ZXB16 module is designed to work with the Apple MIDI specification for Bluetooth. It will work with IOS devices and software (such as Garageband) that recognize this specification. IOS 8.0 and above is required. When power is applied to the module, software such as Garageband will recognize it as a valid connection option from within the program, so no additional drivers or interface is required. The module accepts serial data at the MIDI baud rate (31,250hz) and will format and transmit this data. The module can also receive MIDI data sent to it wirelessly and provide a serial output.

Evaluation Module Connection Instructions

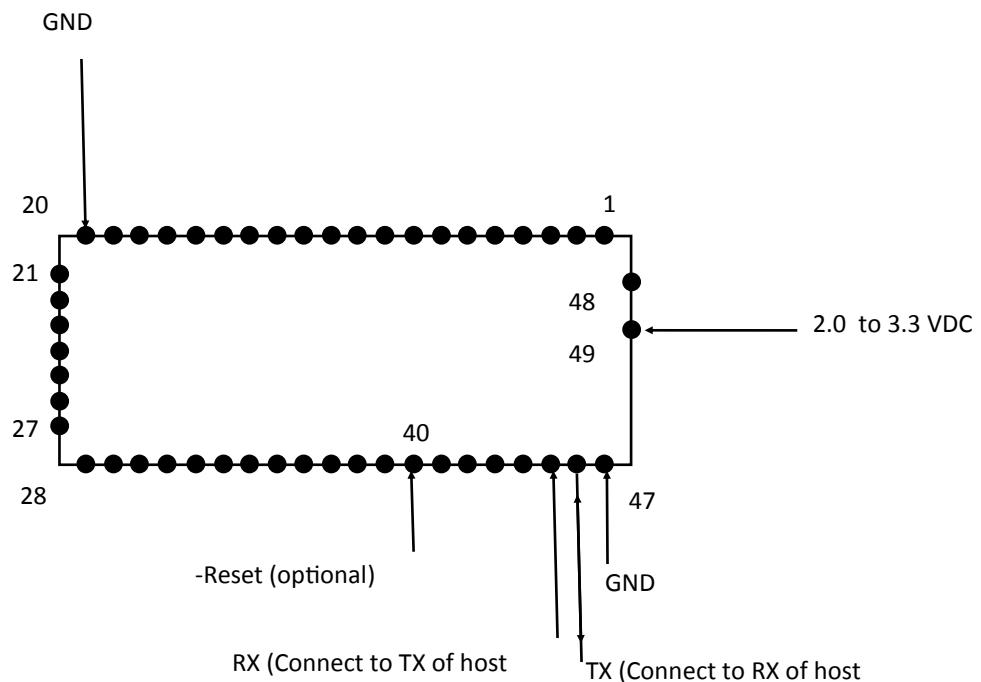
Connect a regulated source of 3.3VDC and GND as shown in the module diagram. Serial data at the rate and format specified in the MIDI specification is applied to the RX pin of the module. This data is in the same format as the last output stage of a MIDI current loop output and is the same signal that would be applied to the current loop optoisolator - single ended with reference to GND.

Testing with Garageband

Current versions of Garageband include the ability to connect directly to Bluetooth MIDI devices. In the tools (settings) menu in Garageband, the end of the list has a selection for Bluetooth MIDI Devices. After selecting this, there should be an option for a Z or ZX number—this is the Zivix module. Selecting this and then activating the connection should deliver MIDI messages directly into Garageband from the serial input of the module.

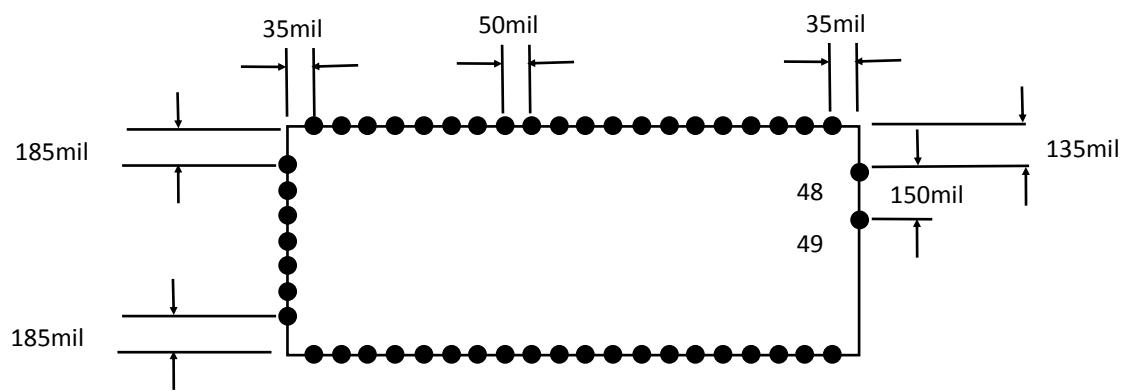


ZXB16 Connection Diagram



Note: Additional I/O pins and A/D inputs are available for custom development

Mechanical Dimensions



Pad dimensions 40mil x 90mil rounded ends

Recommended footprint pad size 40mil x 90mil

Electrical Specification

Rating	Minimum	Typical	Maximum
DC Supply Voltage	1.8V	3.0V	3.6V
Input Low Voltage			.4V
Input High Voltage	.75 x VDD		
Output Low Voltage			.4V
Output High Voltage	VDD-.4V		
Current Consumption Receive		9.8ma	10ma
Current Consumption Transmit		9.1ma	9.3ma
Sleep Current		12ua	13ua
Frequency Range	2402MHZ		2480MHZ

FCC ID: 2AEA5-ZXB16
IC ID: 12670A-ZXB16
Model: ZXB16

FCC Statement

This equipment has been tested and found to comply with the limits for a Class A 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 not 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 & 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 Radiation Exposure Statement

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

FCC ID 2AEA5-ZXB16

This equipment 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.

Caution

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

Canadian Statement

IC ID 12670A-ZXB16

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.

Cet appareil est conforme à la norme RSS Industrie Canada exempt de licence. Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris les interférences pouvant causer un mauvais fonctionnement du dispositif.