

Comments/Response for Upload with Application:

- 1) While we understand the BT may have been previously approved, submitting under a single FCC ID as is being done here requires appropriate data. Each application must stand on its own. The concern is regarding previous comment 13.

13) Newer Bluetooth protocols have higher data rates and wider bandwidths but are also backward compatible to earlier BT protocols. Typically these require additional testing since different modulations and bandwidths are used (bandwidths in these modes are typically 1.2 MHz). Please explain if this device is capable of these modes and if so provide additional data as necessary.

Research shows the particular chipset used in the BT portion of this device is capable of BT 2.0 + EDR functionality. To maintain backward compatibility to v1.2, a mandatory mode, called the basic rate, is required for all Bluetoothv2.0+EDR compliant radios. As defined in earlier versions of the core specification, the basic rate uses a GFSK modulation across the entire packet resulting in a peak data rate of 1 Mb/s. It is important to note that the spectrum occupancy is approximately the same for all three-modulation types as a 1 Ms/s symbol rate is maintained for both the basic rate and EDR packet types. There is a slight increase in occupied bandwidth when using EDR modulation as root-raised cosine filters are used in place of the narrower Gaussian filter implemented in the basic rate packets. The FCC has accepted the use of Bluetooth EDR radios in the 2.4 GHz ISM band by relaxing the -20 dB occupied bandwidth requirement from 1.0 MHz to 1.5 MHz.

The concern however is that if the device may function using EDR functionality this requires test data to support this since a) each application must stand on its own, and b) 2.0 + EDR is capable of utilizing different modulations and EDR and has a different wider envelope. If power is lower for EDR vs. Standard TX, only power, bandwidth and bandedge information needs to be submitted.

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Subject: RE: www.AmericanTCB.com ATCB009476 | WMQ8008004 | 4284A - 8008004
| | WMQ8008004_ATCB009476

Tim

I have just talked to the Engineer at Bluetooth Manufacture Roving Networks and was told this is a question asked quite often. Although listed as 2.0 the Module operates at the 1.2V Protocol and only uses the Basic Rate Profile. The EDR is not enabled in the radio. I included a specification sheet on the radio provided from Roving Networks.

The Engineer Mike Conrad with Roving will be able to talk if needed. Let me know if additional information is required.

Daniel Johnson

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11. Low frequency testing photographs do not support if the device was tested in each of 3 axis as is expected for a hand held device. Please explain.

RESPONSE: the test photo shows the worst case position determined by rotating the eut through 3 orthogonal positions for maximum, as described in the test procedures on the last page of the test report.