

Attn: Reviewing Engineer

Federal Communications Commission  
7435 Oakland Mills Road  
Columbia, MD 21046

## **Operational Description of cB-0905-0202**

This Bluetooth modular transmitter can be integrated in different end products.

Bluetooth is a short-range radio link intended to be a cable replacement between portable and/or fixed electronic devices.

Bluetooth operates in the unlicensed ISM Band at 2.4 GHz. In the US a band of 83.5 MHz width is available. In this band, 79 RF channels spaced 1MHz apart are defined.

The channel is represented by a pseudo-random hopping sequence through the 79 channels. The channel is divided into time slots, with a nominal slot length of 625µs, where each slot corresponds to different RF hop frequencies. The nominal hop rate is 1600 hops/s. All frequencies are equally used. The average time of occupancy is 0.3797 s within a 30 second period. The symbol rate on the channel is 1Ms/s.

### **Parameter Data**

Bluetooth radio / Bluetooth base band controller	Philips BGB204
Radio power amplifier	muRata MF2400PS-AL0909 (+20dB)
RF output power	Class 1
Receive input level (max)	+16dBm
Output frequency	2.402 – 2.480 GHz, ISM band
Bluetooth stack	Embedded host stack
Bluetooth qualification	2.0
Antenna	2.4 GHz Mica SMD or UFL connector
Power Supply	3.3 VDC (min) / 6.0 VDC (max)
Dimensions	23 mm x 36 mm

Regards

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