PayRange BluKey Module

Operational Description

The MCU controls the payment application functions. The BLE radio is a System on a Chip (SoC) CSR1010 which handles all Bluetooth 4.0 RF interface functions.

Al l frequencies generated synthesized and are phase locked to the 16.000 MHz crystal with 25ppm accuracy. Spurious frequencies are controlled with baseband filtering within the SoC.

Power control is variable by software control from 9 dBm max to -16 dBm. This control is not changeable except with factory tools. All test were performed at maximum output power.

Spectrum 2.400 GHz-2.4835 GHz ISM band
Channels: 40 2-MHz channels.
Modulation : Gaussian frequency shift keying
Modulation Rate rate 1Mbit/s
Maximum transmit power is 10 mW.

Further details are given in Volume 6 Part A (Physical Layer Specification) of the Bluetooth Core Specification V4.0. Bluetooth Smart is classified as a system using digital modulation techniques or a direct-sequence spread spectrum.