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## Technical Description

The CC2541EM is an evaluation board for the CC2541 chip from Texas Instruments. The board will only function together with the SmartRF05 Evaluation Board which is included in the CC2540 Development Kit.

The CC2541EM is preprogrammed with software that allows the user to create a simple *Bluetooth®* Low Energy (BLE) connection with another CC2541EM. Through one of the boards the user can read out the Received Signal Strength Indicator value, transfer simple key presses to the other board, and adjust certain BLE-specific connection parameters (not physical parameters such as output power; channel etc.).

The CC2541 System on Chip has a differential RF output. On the CC2541EM board this differential output is transformed to a single ended, 50 ohm signal through a passive component (capacitor/inductor) balun. The output of the balun is low pass filtered to reduce harmonic radiation and then connected to an SMA connector.

The antenna supplied with the board is W1010 from Pulse Electronics. The datasheet of the antenna is attached for further details.