![Texas Instruments logo]

Gaustadalléen 21
0349 Oslo
Norway

(+47) 22 95 85 44
(+47) 22 95 85 46

Technical Description

The CC1111Dongle-868, see Figure 1, includes Texas Instruments' CC1111, which is a sub-1 GHz system-on-chip (SoC) designed for low power wireless applications. The CC1111 combines a sub-1 GHz transceiver and a single-cycle 8051 MCU, 32 kB of in-system programmable flash memory, 4 kB of RAM, and a full-speed USB 2.0 interface.

CC1111 has a balanced output (RF_N and RF_P), which 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 attenuate harmonic radiation and then connected to a 0868AT43A002 Johanson Technology chip antenna with a PCB track added for tuning of the resonance frequency. For antenna performance please refer to design note DN016 (www.ti.com/lit/swra160).

The CC1111Dongle-868 is not pre-programmed and CC1111 will not be in active mode (transmit or receive) at power-up. An external ICE is needed for initial programming of the CC1111.

Figure 1 CC1111Dongle-868