



September 27, 2012

Timco Engineering, Inc.  
849 NW State Road 45  
P.O. Box 370  
Newberry, Florida 32669

Re.: Operation Description of CKW wireless module

FCC ID: XWS-CKW

To Whom It May Concern:

The Cleankeys CKW wireless module contains a wireless transceiver radio capable of both transmitting and receiving. The radio operates in the 2402MHz to 2481MHz band with 2MHz spacing between radio channels. The maximum theoretical output power of the radio is 0dBm. The modulation scheme used by the radio is GFSK. The maximum theoretical data rate of the radio is 2Mbps. The CKW wireless module contains an intrinsic PCB trace antenna with max gain of 1.01dBi. The CKW wireless module also contains onboard power regulation to guarantee a clean and stable voltage is provided to the radio. There is a SPI communication link with the radio that is exposed through a 10 position connector.

A host microcontroller configures the radio using the SPI link and then sends digital data to the CKW wireless module for transmission. The radio will also receive digital data over the wireless link and interrupt the host microcontroller once it is available on its receive buffer. The host controller is then responsible for reading and interpreting the data.

Sincerely,

Steve Hole  
Chief Technology Officer (CTO)  
Cleankeys Inc.