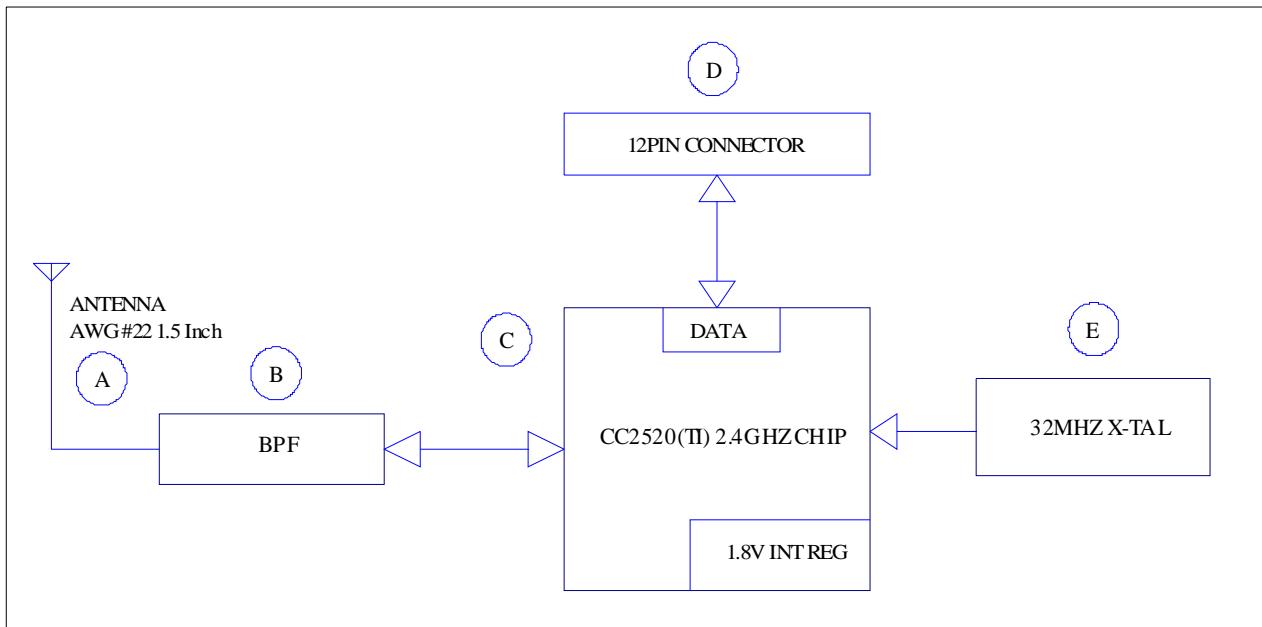


Precision RC Electronics Inc.,

2.4GHz RF MODUL(#PHM-240)

1. Operation Description(#PMH-240 RF MODULE)



A:Antenna

A 1.5inch AWG22 wire used for the transceiver electromagnetic waves.

B: Band Pass Filter

The RF input/output of transceiver is high impedance and differential. The transceiver transmission lines that connect the PCB strip lines are part of the RF band pass filter and matching antenna. It is therefore double layer PCB and ultra small capacitor used.

C:RF Transceiver (CC2520)

The CC2520 is TI's second generation ZigBee® IEEE 802.15.4 RF transceiver for the 2.4 GHz **unlicensed ISM band**. This chip enables industrial grade applications by offering state-of-the-art selectivity/co-existence, excellent link budget, operation up to 125°C and low voltage operation. In addition, the CC2520 provides extensive hardware support for frame handling, data buffering, burst transmissions, data encryption, data authentication, clear channel assessment, link quality indication and frame timing information.

D:12PIN SMD connector

A 12pin SMD connector is used to interface with a CPU and a 3.3V regulator . In addition all instructions and data interfacing to a micro-computer chip are available via the 12pin connector.

E:32MHz SMD Crystal

An external clock signal can be used as main frequency reference. The therefore must be 32Mhz. Because of the crystal frequency is used as reference of 2.4GHZ frequency.