

Theory of Operation/Technical Description – FCC ID: VW4A091743**- RF circuit function:**

The IEEE 802.15.4 compliant AT86RF212B transceiver generates a modulated carrier wave at 906- 924MHz with 10 IEEE 802.15.4 channels. This transceiver circuit is used by system applications as a physical layer for ZigBee applications.

- RF signal flow:

The Transceiver IC outputs a differential RF signal- RFP & RFN which is converted to single ended by the balun and then passes through the RF path till the antenna and gets radiated or vice versa during reception

- Description of Antenna system:


RF signal from/to the front end goes to MS147 Antenna connector and then through tuning elements to the chip antenna. Tuning elements are present to ensure compliance.

- Compliance with 15.203 antenna requirements:

FCC 15.203 requirements for this design are tested and verified during FCC compliance testing.

- Description of all modulation schemes used in the product:

Module uses BPSK and O-QPSK with half-sine pulse shaping.



Saravanakumar Marudhachalam

Manager, Tools HW Development

Atmel Norway AS

Vestre Rosten 79, 7075 Tiller, Norway

Tlf:+47 72 88 43 88 Fax +47 72 88 43 99