

## RF Function List

### 1. Operation Mode

- 1-1.Coordinator
- 1-2.Router
- 1-3.END-device
  - a. always power
  - b. Sleepy
  - c. mobile(5.5X)

### 2. Explanation for each modes operation (first power ON)

#### 2-1. Coordinator

- a. After the network scanning( ch.11~26), select the channel.
- b. Based on extended PAN-ID, extended PAN-ID, and extended short ID, make one network
- c. With the push button(on the bottom side) control the join permission mode.

#### 2-2 Router

- a. Set the slide switch as "Router", and then if power on, it works as router- mode.
- b. Scan the networks for pressing the push bottom for 3 times.
- c. Router scans the coordinator networks, and get the PAN-ID and short ID from the join permitted ID , and provide its PAN-ID for network formation.

#### 2-3 END-device

- a. Send its information to the network with broadcasting
  - coordinator direct communication is not possible, using networks Router for transferring the information.
- b. Each Routers that are connected in the networks, send its extended PAN-ID to the Coordinator.
- c. The Coordinator save its extended PAN-ID, EUI ID, and PAN-ID to a table, and save the received information as turns.
- d. Coordinator send its saved network information table to the end-device.
  - Use network Router when coordinator direct communication is not possible.
- e. The end-device classifies the network construction each from received table information with by extended PAN-ID.
  - A user join the each construction device, and control the devices that are connected via Routers.