LimeNET FHS

SDR Solution for Frequency Hopping Systems

4G Capability

- **Covering LTE frequency B1 to B48**

FHS PARAMETERS

- **Output Power: 37dBm(Max)**
- **Coverage Distance up to 30km**
- **RF Operating frequency: 0-3.8GHz**
- **System Sensitivity▢ -98dBm/10MHz**
- **Full-duplex**
- **TDD/FDD**
- **MIMO features: one transmitter and two receivers (one transmitter channel and two receiving channel)**
- **Data Bandwidth: adjustable from 1Mbps to 20Mbps**
- **Data interface: Ethernet + UART**

Antenna

- **Gain 4dBi / 3dB Beam width 100°**
- **1T2R (three antennas array)**
- **Planar microstrip antenna**

RF/Modulation

- **OFDM+QPSK**
- **Fast frequency hopping**
- **Double-conversion frequency**
- **Working bandwidth: 200MHz(default) 800MHz(Max)**

SECURITY FEATURES

- **Encryption Method▢ AES**
- **FH parameters: 1000 hops/s**
- **Adaptive frequency hopping**

Technical Characteristics

- **Time Division Duplex (TDD) mode or Frequency Division Duplex (FDD) mode optional, LimeNET FHS is highly suitable for the application of asymmetry between uplink and downlink of wireless data transmission network.**
- **LimeNET FHS can set the uplink and downlink time-sharing ratio according to user configuration**
- **FHS utlises lower bandwidth resources and has more FH points in a limited carrier bandwidth application: accommodates more devices to work simultaneously within the carrier bandwidth**
- **Enhanced FH algorithms for anti-interference and anti-interception: impulse interference tolerance capability**

POWER SUPPLY

- **Power Supply: 10V-36V DC, passive PoE**
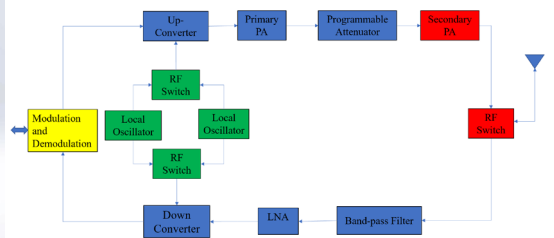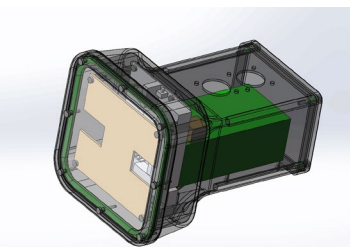- **Power Consumption of the system: less than 10W (measured under 5W transmission power)**

Figure 1 LimeNET FHS