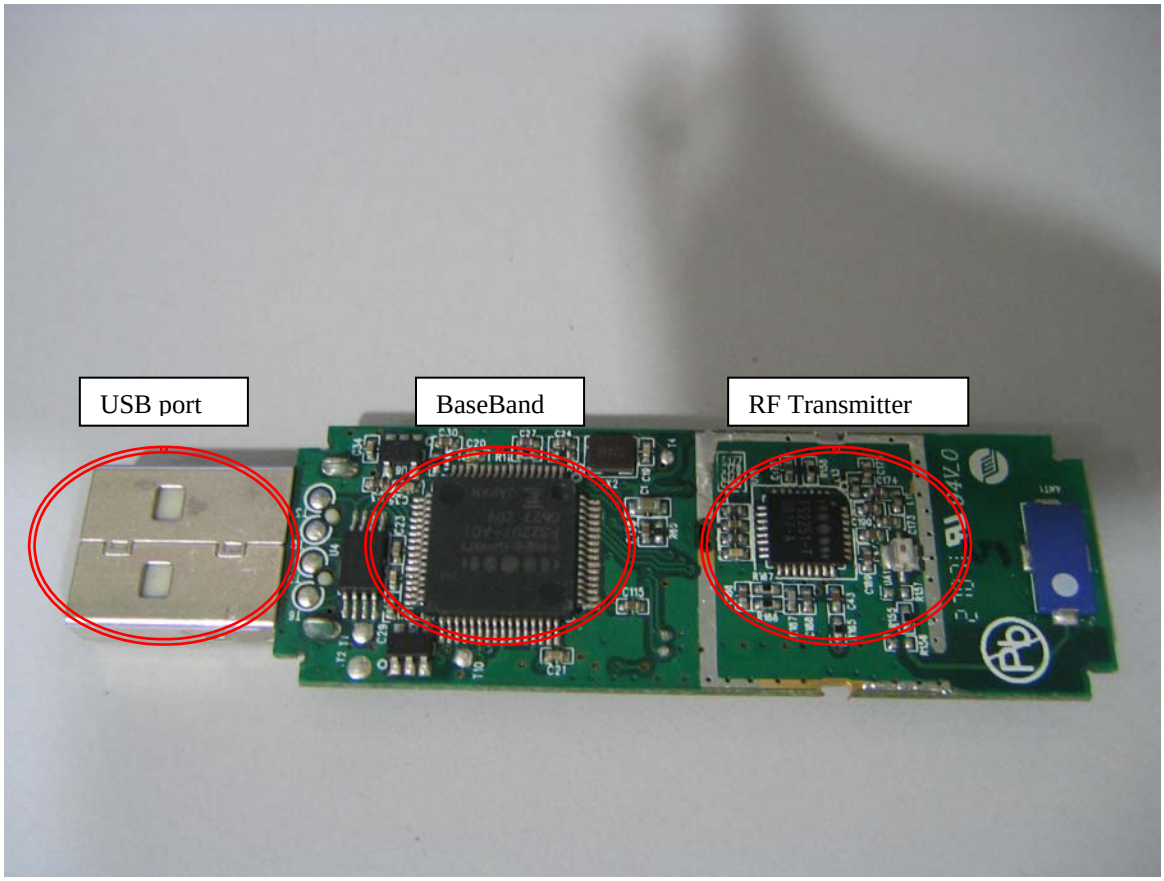
# Jupiter EMI Test Document

## 1. Jupiter EMI test DUT

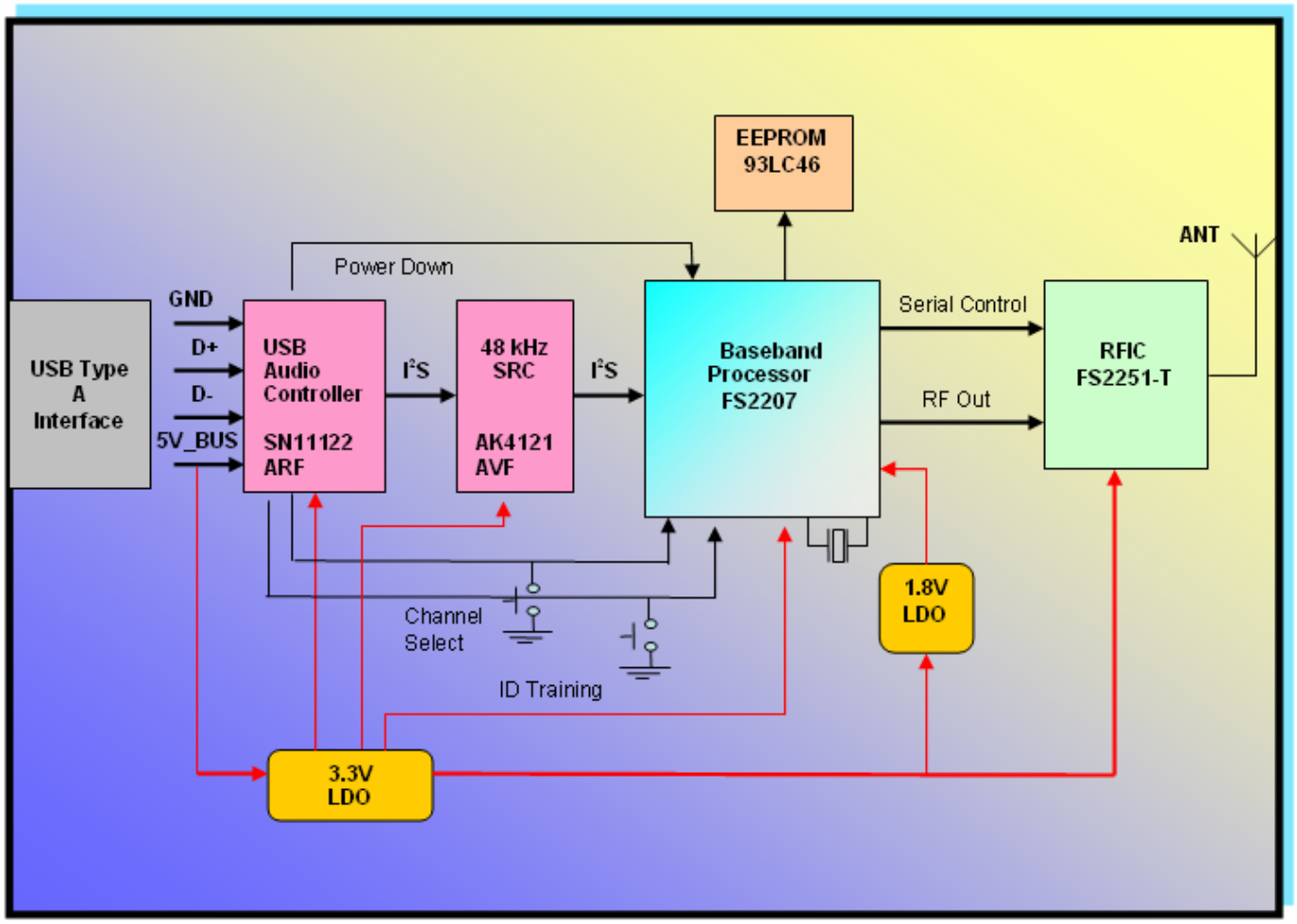



## 2. Description on DUT

- Jupiter wireless USB Audio transmitter is operating at 2.4GHz ISM band. It is designed as a FSK digital 2.4GHz transmitter.
- The Wireless USB transmitter works with Windows 98, Windows ME, Windows 2000, Windows XP, Mac OS 9 and Mac OS X (with the latest fixes from Apple).
- It is a USB plug-and-play Audio transmitter.
- U27 is a USB steaming Audio controller. It receives Audio stream from PC via USB interface and sends digital audio data in I2S format to U1.
- U1 is digital sample rate converter. It receives digital Audio streaming data from U27 and sends out digital data to U3 after doing SRC.
- U3 is a wireless digital Audio processor baseband IC. Its core supply is +1.8V and I/O supply is +3V.
- U3 is configured in transmit mode. It re-formats the digital audio streaming data by adding some ID and ECC information.

- The IC U4, EEPROM 93LC46 who stores the customization and configuration of the specific function of the U3.
- U3 also controls U15, which is a single chip 2.4GHz FSK transmitter. U15 modulates the processed digital Audio streaming data to 2.4GHz RF signal and deliver to the antenna input. The antenna radiates it to the air.
- The RF channel could be changed by external control.

## 3. BLOCK DIAGRAMS



## 4. Specifications

- **RF Channel: 8**
- **Channel Frequency:**

| Channel | Frequency (MHz) |
|---|---|
| 1 | 2405.376 |
| 2 | 2466.816 |
| 3 | 2415.616 |
| 4 | 2456.576 |
| 5 | 2425.856 |
| 6 | 2446.336 |
| 7 | 2436.096 |
| 8 | 2477.056 |

- **Output power**

  10dBm (Max.)

- **Power supply**

  USB power supply (+5V)

- Modulation type: FSK (Digital modulation)
- Antenna:  Chip antenna
- Antenna Gain: 2.5dBi(Max.)

## 5. Operating Manual

- Plug the device into the USB port of a PC. It will be powered on and transmitting at Channel 1.
- Press the Channel button once, the device will change the transmit channel to the next.
- Press and hold “PAIRING” button on the USB Dongle, the device will go into the ID training mode.
- Plug out the device form USB port to power off the device.

## 6. Regulation for EMI test

FCC part 15.247 & ETSI EN 300.440