At DIO-T008L, Audio L and R are sampling at 44.1K rate and are represented with 16-bits respectively by A/D converter, which produces the I^2S data. At DIO-T008U, the audio stream form the PC is converted to I^2S data by USB audio controller. The I^2S data then is encoded by ASIC to a bit sequence with data rate approximately 2.8Mbps.

The encoded data stream (passing a LPF) modulates the 2.4GHz carrier frequency directly with a 700KHz frequency deviation. The modulated carrier is amplified and filtered by a LC-LPF, then emitted via the inverted-F PCB antenna.

As to the FCC regulation, digital modulation with minimum 6-dB bandwidth great than 500KHz can have output power up to 30dBm. DIO-T008 series can meet the requirement. Please refer FCC part 15.247 for detail.

Features

1. SNR: 90dB
2. THD: < 0.1%
3. Frequency Response: -1dB @20 Hz ~ 20 kHz
4. Linear PCM format: 44.1K sampling rate and 16-bits representation.
5. Non-compression to perform high audio quality with only 0.5ms delay time.
6. POP noise prevention during power-on period.
7. 4-bits ID function.
8. One transmitter and multi-receivers application.
9. FSK design to ensure Low power consumption for portable application.
10. Embedded antenna for cost-effect and quick development.
11. Operating at 2.4GHz ISM band with 8 selectable channels.
12. Application distance up to 30 meter (L.O.S.) with perfect reception.
13. USB interface compliant to:
    - Win98 SE/ WinME/ Win2000/ WinXP and MacOS 9.2.1/MacOS10.2
    - USB specification v1.1
    - USB audio device class specification v1.0
    - USB HID class specification v1.1