

Technical Description for the 2.4GHz transmitter, model: 07001

Audio signal from an external audio source (for example, MP3 player) is going thru the audio input terminal to the U201(AD1172). The Audio L & R are sampling at 44.1K rate and are represented with 16-bits respectively by A/D converter, U201, which produces the IIS data. The IIS data then is encoded by CLPD, U101(ES03A01) to a bit sequence with data rate approximately 2.8Mbps. The user bit function is disabled in the product. The encoded data stream(passing a LPF) modulates the 2.4GHz carrier frequency which controlled by the PLL, U71(MB15E07SL) directly with a 700kHz frequency deviation. The modulated carrier is amplified twice by Q31 and Q41 and filter by a LTCC BPF, F1(BF3261), then emitted via the integral inverted-F antenna.

SW0, SW1 and SW2 are used to determine the fundamental frequency of the transmitter. For this 2.4GHz transmitter, SW0, SW1 and SW2 are set to lock at one frequency, 2410MHz.