

Technological specifications for DLXA-002

Introduction

The DLXA-002 is a wireless transmitter using Orthogonal Frequency Division Multiplexing (OFDM) modulation technology. The OFDM transmitter transfers data such as pictures, audio and etc. at a rate of 4 to 15 Mbps within 8MHz bandwidth in the Industrial, Scientific and Medical (ISM) band. It consists of MPEG encoder, modulator and RF circuit. The DLXA-002 is docked onto a Sony Camcorder and works only with the signal from Sony Camcorder. The signal of the DLXA-002 is received by the optional antenna and tuner/de-modulator.

Features

1. COFDM Transmission

- Provides very stable RF link
- Excels in high multi-path environments
- Significantly outperforms the analog FM system

2. Mobility

- Omni-directional Antenna offers more shooting flexibility due to stable RF link

3. Fast set up and ease of use

- Dockable to camcorder
- Compact transmitter
- Built-in MPEG-2 encoder/COFDM modulator/RF
- Eliminates triax cable usage

4. MPEG-2 Encoding

- High Picture Quality

5. Low Power Consumption

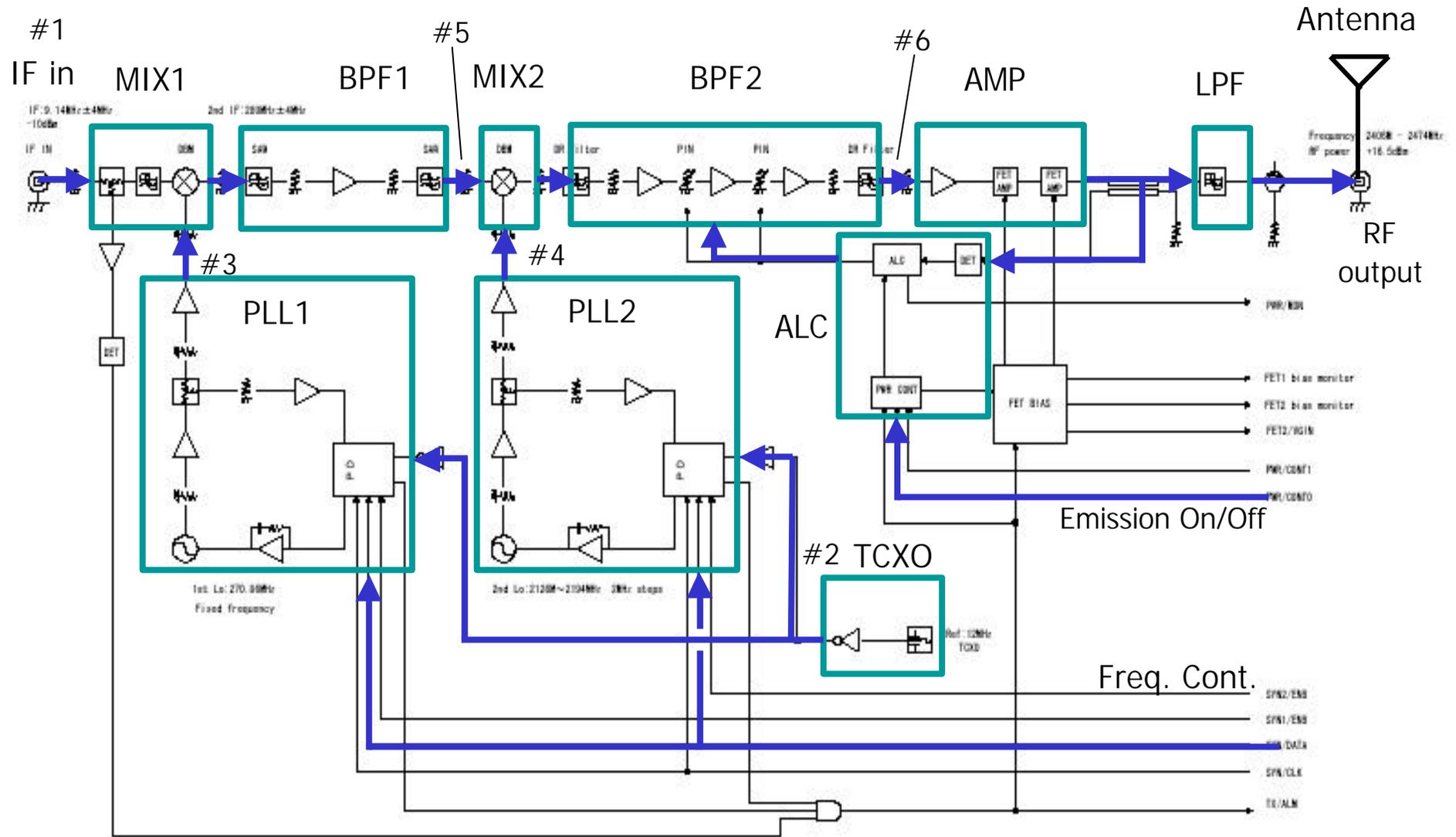
- One hour operation using BP-L60A battery

Frequency Table

in MHz

			2406	2408
2410	2412	2414	2416	2418
2420	2422	2424	2426	2428
2430	2432	2434	2436	2438
2440	2442	2444	2446	2448
2450	2452	2454	2456	2458
2460	2462	2464	2466	2468
2470	2472	2474		

RF UNIT Block Diagram



Functional Description of RF UNIT

- #1: IF signal is already modulated with 16QAM-OFDM, and is input into MIX1 working at 9.14MHz.
- #2: The reference frequency for the carrier frequency oscillates at 12MHz controlled well by TCXO and is distributed to PLL1 and PLL2 circuit.
- #4: The PLL2 generates the second local OSC varying from 2126-2194MHz by 2MHz steps.
- MIX1 mixes the IF signal #1 and the first local OSC (#3).
- #5: BPF1 distills 280MHz bandwidth from MIX1 output.
- MIX2 mixes the MIX1 output #5 and the second local OSC (#4).
- #6: BPF2 distills approx. 100MHz bandwidth at 2450MHz from MIX2 output.
- AMP amplifies RF signal (#6).
- LPF suppresses undesired spurious outside of the 2400-2484 MHz band.
- ALC feedback-controls RF carrier for constant output.