2.4GHZ Baby-monitor

Model Number: ABM-LCD Series; Version: V1.0

Description

This is a 2.4GHz DSSS RF transceiver with audio design,
operation FREQ: 2400MHz-2483MHz

On BU side,MCU receives the external analog voice signal from MIC, and then converts to digital signal through on chip CODEC. These signal will be packaged and put to RF chip to transmit through 2.4G wireless.

On PU side, MCU finds RF chip received 2.4G wireless data package, and read out the packet. MCU get the digital voice signal from the received package and put it to on chip CODEC, CODEC convert the digital signal to analog voice signal output speaker.

Parent Unit LED & Switch Description

The Parent unit including: 7 switches and 7 LED. 1LCD

- **SW1 POWER button; Hold for 3 second to turn on/off;**
- SW3 UP
- SW2 DOWN
- SW4 MUSIC
- SW5 C/F
- SW6 Night Light On/Off (only 1116)
- SW7 Call BACK
- LED1 working indicating & low battery indicating flash (only 1116)
- LED2 lost linking indicating (only 1116)
- LED3—LED7 as Sound level indication; indicating audio level collected at the BU;
- LED8 LCD Backlight

Baby unit

Baby Unit LED & Switch Description

The Baby unit including: 1 switches and 3 LED.

- **SW1， POWER button; Hold for 3 second to turn on/off;**
- Channel change;
- LED1 LED work indicating;
- LED2 LED3 Night Light LED (only 1116)

RF Frequency table (12 channel) MHz

CH 01	2413	CH 06	2438	CH 11	2463
CH 02	2418	CH 07	2443	CH 12	2468
CH 03	2423	CH 08	2448		
CH 04	2428	CH 09	2453		
CH 05	2433	CH 10	2458		

Electrical characteristics

Item	description
Modulation method	Direct sequence spread spectrum
Modulate occupy bandwidth	< 5MHz
Operating voltage use AC-DC adapter For PU and BU	DC +5v @ +/-5%
Operating voltage	Parent unit 2.4v (AAx2 1116) Parent unit 2.4v (battery package 1120;1124) Charge battery only PU
Cunnent consumption Normal mode for PU DC 5V Cunnent consumption Normal mode for BU DC 5V	<=90mA (no linking) <=100mA (audio min) <=100mA
Current consumption TX on test mode DC 5V	<=280mA
Current consumption Rx on test mode DC 5V	<=100mA
Current consumption TDD mode test mode DC 5V	<=100mA
Charge current (Max)	<=130mA(1116) <=100mA(1120;1124)
Power off current	<=30uA PU 2.4V <=30mA BU 5.0V
Low battery indication on PU	>=2.8v full battery 2.2 +/-0.1v warning,
Transmission power	15dBm(+4dBm;-2dBm)
Sensitivity (relative to our tester)	≤-95dBm
TX frequency deviation error	≤+/-80kHz
Transmit Range	>=350m
BU 1kHZ 12mV input test	
BU audio Distn	<=10%

BU audio SNR	>=30dB
BU audio Output	>=0.25W
PU audio output	>=0.25W
PU audio Distn	<=10%
PU audio SNR	>=30dB
Temperature	+/- 2 ℃