Description

The ID appearance of FM-228/IPS-APL-00 shown in Figure 1 and 2. The functional block diagram of FM-228/IPS-APL-00 is depicted in Figure 3. And the schematic is shown in Figure 4. The first stage is the transmitter plug-in **iPod Shuffle** and is tuned with the selected frequency.

ID appearance

The front of FM-228/IPS-APL-00 has the said LCD and five control buttons. The LCD shows the transmission frequency in MHz with one decimal place and the display will switch off automatically for power saving purpose after no further key operation in 1sec. One of the control button symbolic "—" has the function of tuning the transmission frequency downward in 200KHz step. Another control button marked "＋" tunes the frequency upward in 200KHz. Another control button marked "1" "2" or "3" preset memory control button.

At the top side of FM-228/IPS-APL-00, there are USB connector plug to iPod Shuffle USB connector. The audio from iPod Shuffle is the audio signal input connector.

On the top of FM-228/IPS-APL-00, a customer logo is silk-screen printed.

A brief product description is printed on the rear side of FM-228/IPS-APL-00.

Block diagram

In the block diagram, there are totally six functional blocks, (1) Power management; (2) RF transmission; (3) Micro-controller unit; (4) Input device and interface; (5) Output device; (6) Memory.

Schematic

The key components of power management have HT7544-1 and MMBT3906.

BH1415F is the key chips of RF transmission.

YT908-FM228(NT6612A or TM8708) is the essential part of FM-228/IPS-APL-00 as the centralized control block. The dedicated firmware is resident inside the ROM part of the micro-controller.

The control buttons are the input device. The interface is the audio signal input and the UART interface.

The output device is LCD panel and the display backlight.

HT2201 works as the memory of FM-228/IPS-APL-00. It stores the transmission frequency and provides the last transmission frequency.