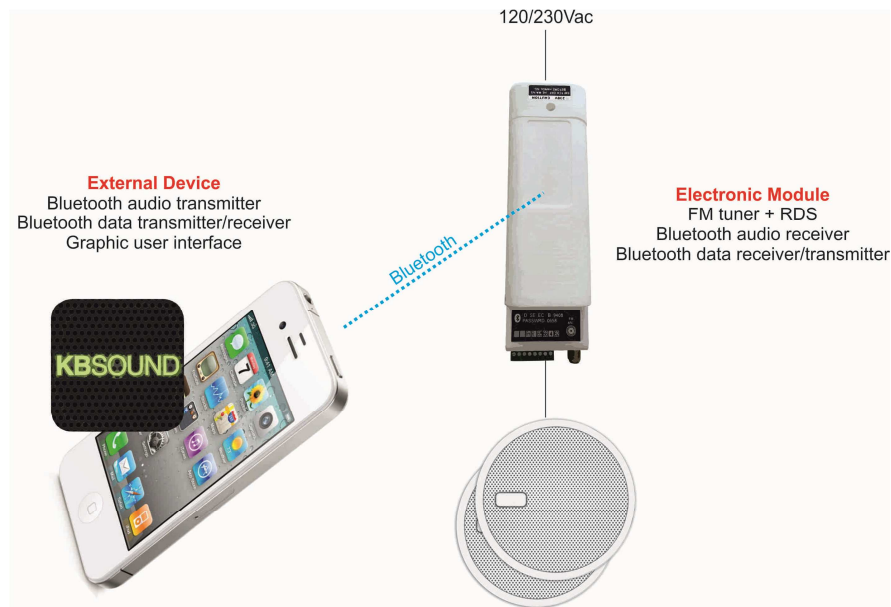
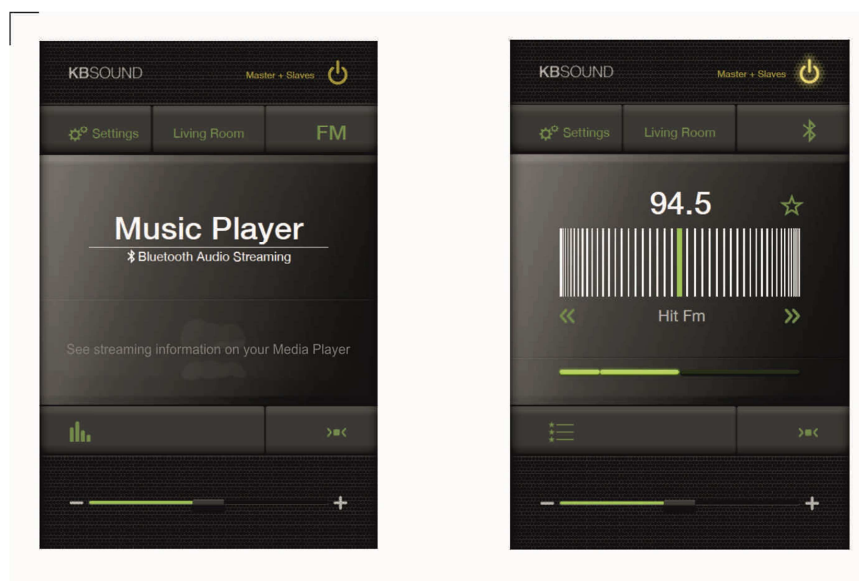


## Operational description

The **KBSOUND BT** is an the electronic module in-ceiling installed which permits enjoy two music audio sources: FM tuner and Bluetooth Audio Streaming.

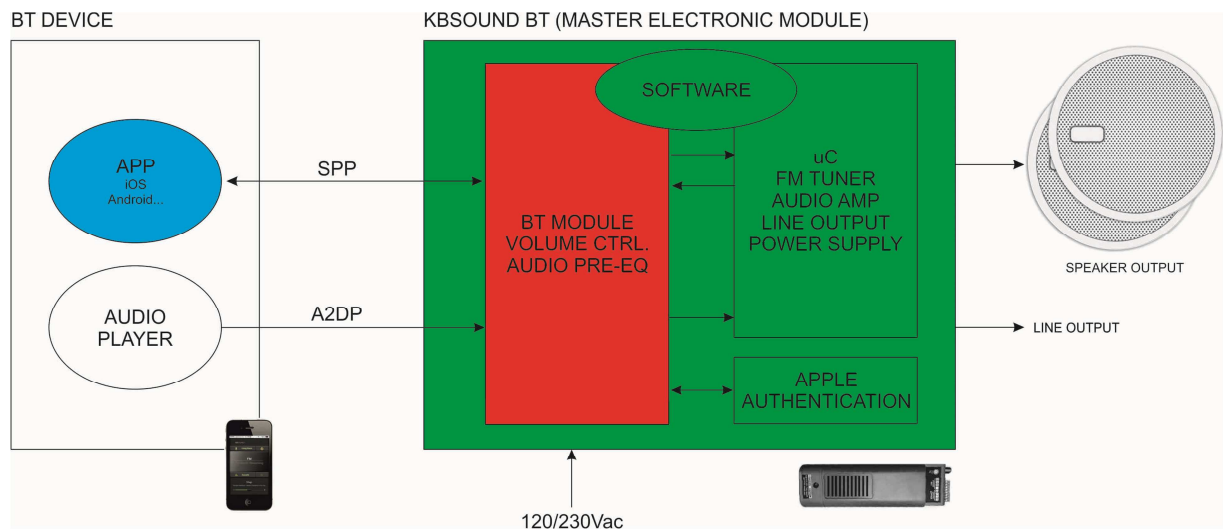


The **KBSOUND BT** is controlled from an App available for IOS and ANDROID. From this App the user will turn on and off the music, control the volume, choose the FM tuner station and save favorites stations. The user will also choose the Bluetooth Audio Streaming as source of music. Any source of music from the smartphone or tablet can be listened in the speakers: the music stored in the smartphone, Youtube, Spotify, Internet Radio, ...



A STM32F101CX microcontroller is the heart of the system: it receives commands from Bluetooth module, it handles the audio processor inside the Bluetooth module (volume and pre-equalizations), it transmits the commands to the peripherals and sends data to the App through Bluetooth channel (SPP profile).

The RF communication is just the Bluetooth 3.0 standard with the ISSC BM87SPP05 module. It combines transceiver and baseband function operating in 2.4GHz ISM band Class 2 Radio, compatible with Bluetooth Core Specification Version 3.0 + EDR. The RF receiver GFSK typical -90dBm,  $\pi/4$  PSK typical -91dBm, 8DPSK typical -84dBm.



General characteristics:

- power input: 120/230Vac 50/60Hz
- peak power consumption: 60W
- nominal power consumption: 12W
- audio output: 8+8Wrms
- speaker output: 4+4 ohms
- line output
- FM tuner
- Bluetooth 3.0 module: A2DP (receiver), SPP (receiver/transmitter)

The **KBSOUND BT** Master Electronic Module is prepared to be in-ceiling installed.

