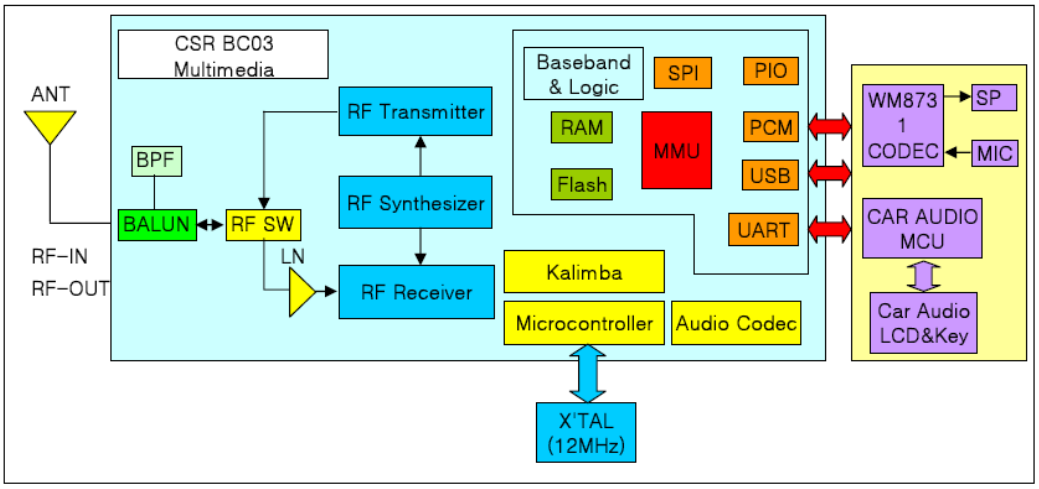
FCC ID：WA808MYAL3208

Work principle

This Car Audio Unit is special for its Bluetooth function.

NBM2XA-03，is the bluetooth handsfree module, provides a high quality, high integration, and cost effective solution for hands-free mobile communication such as Hands Free Car Kits or Telematics devices or luxury bluetooth Headset(mono,stereo) with noise&echo cancellation or portable bluetooth MP3 with RF tunning.

This is the block diagram of the NBM2XA-03.



The RF transceiver/reciever circuit is composed of NBM2XA –XX and its accessory components.

NBM2XA-XX is a highly integrated RF transceiver IC for 2.4GHz band .

PALLING action instruction , which is in BLUETOOTH MODLUE, will send RF signal via RF Transmitter that the Software processed instruction in MMU decoded by RF , and RF SW and then outer antenna.

The process of receiving and sending information from outer set (mobile phone):

When antenna receiving the information, It processes in MMC after being decoded via [BALUN]→[RF SW]→[LNA]→[RF Receiver]→[Baseband & Loglc], and transmits to U601（CAR AUDIO MCU） via UART port.

Phone calling state : when the user transmits his voice via mike/transmitter to WM8731, the analog signals will be transited into PCM signals and then into BLUETOOTH MODULE's PCM.

Voice Signal transited into PCM, after being input to Kalimba DSP via MMU to be processed by SOFTWARE 's ECHO NOISE CANCEL , and [RF Transmitter]→[RF SW]→[BALUN] decoded by RF, will output signals via outer antenna .

The voice signals of the receiver's mobile phone ,that is transmitted into antenna , will be input after being decoded via [BALUN]→[RF SW]→[LNA]→[RF Receiver]→[Baseband & Loglc],and will transmit to outer Codec via PCM decoded after the signals processed in MMC transmit to Kalimba DSP for processing via SOFTWARE's ECHO NOISE CANCEL, and then output to outer speaker after being transformed into analog signals in WM8731.