

Operational Description

This product, Model SFK411, is a Bluetooth handsfree kit installed in vehicles. The product operates in 2400 to 2483.5 MHz band. The channel is represented by a pseudo-random hopping sequence through the 79 channels. The channel is divided into time slots, with a nominal slot length of 625 μ s, where each slot corresponds to different RF hop frequencies. The nominal hop rate is 1600 hops/s.

The control signals and data in the Bluetooth Chipset are modulated and processed and then pass the PA in it. They will be transmitted from ANT through the BALUN FILTER to another Bluetooth device.

The RF signal from other Bluetooth devices is received via ANT. And they go through BALUN FILTER into the chip. They are magnified by internal LNA in the chip.

The power settings and crystal trim are stored in EEPROM.

Power source

The product is usually powered from a lead-acid battery in vehicles through the Cigar Lighter Adapter, or from DC 3.7V Li-ion battery pack. The DC/DC Converters converts the input voltage into DC 2.5V and 3.3V. The converted DC 2.5 voltages are supplied to CODEC (SEECODEC V232), and the DC 3.3 voltages are supplied to Microcontroller, RF module, and Audio AMP.

Antenna

The product has a SMD Chip antenna manufactured by AMOTECH Co., Ltd. that has the directional gain of typical 0 dBi. No external ground is required.