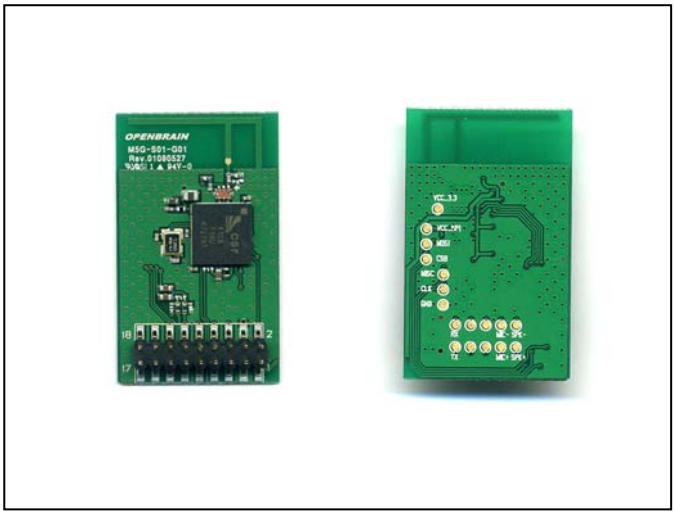
# Operational Description




OPENBRAIN's M5G is a compact Bluetooth module designed to provide easy Bluetooth audio application for communication devices without Bluetooth functionality. By integrating the module into communication devices that use speaker/microphone or wired ear-sets, it enables the communication device to be used with Bluetooth headsets within a range of 10m distance.
M5G integrates all the functions needed to replace existing audio connection wirelessly and has been designed such that it is possible to control and monitor the functions externally via serial (UART) communication thereby enabling Bluetooth functionality to be implemented into devices in a short period of time.

It 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 625μs, 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 internal Flash Memory.

The product is powered by DC +3.3V nominal and has an Inverted F PCB antenna in it.