

# GEM2 Module

BLUETOOTH 4.2 AND ANT+  
CONNECTIVITY FOR SPORTS  
AND FITNESS APPLICATIONS



The North Pole Engineering GEM2 Module is a fully integrated Bluetooth and ANT+ wireless module solution designed for easy integration into fitness equipment and other sports fitness related applications. The North Pole Engineering GEM2 carries module certification in all major markets and is also Bluetooth and ANT qualified. The GEM2 module incorporates North Pole Engineering's software for data exchange between the GEM2 module and fitness equipment console. The GEM2 is a completely open platform support Bluetooth FTMS and ANT FE-C allowing developers to easily integrate fitness equipment workout data into their mobile applications whether for iOS, Android, or PCs.

## MAIN FEATURES:

**DUAL TECHNOLOGY** for both mobile app and group fitness system connectivity

**OPEN PLATFORM** enabling broad 3rd party application support

**STANDARD PROFILES** for Bluetooth and ANT enable standardized connections and data exchange between fitness equipment and applications

**RF CERTIFICATIONS** allows for broad use across most geographies

**HARDWARE AND SOFTWARE SDK** for rapid integration and application development

## SPECS:

**Bluetooth Specification:** 4.2

**Frequency:** 2.402-2.480GHz

**Transmit Power Level:** -20 to +4dB

**Temperature Range:** -40° to +85°C

**Supply Voltage Range:** 1.7V to 3.6V

**Recommended Supply Voltage:** 3.0V

**Receive sensitivity in ANT mode:** -90dBm

**Receive sensitivity in Bluetooth LE mode:** -90dBm

**Maximum Receive Current at 0dBm:** 6.5mA

**Maximum Transmit Current at 0dBm:** 7.1mA

**Host Protocol:** GEMHCI or GEMSAFE

**FW Upgradeability:** Over the air or JTAG

## EXAMPLE APPLICATIONS COMPATIBLE WITH GEM2

