



Anaren Integrated Radio (AIR)

Low-power RF modules, firmware & development tools that make it easy to 'go wireless'

MSDK Series

The Multi-Sensor Development kit (A20737A-MSDK1) and *Atmosphere* the innovative online development tool is designed to create all the embedded code and target mobile device applications needed to wirelessly connect and communicate to an embedded Anaren *Bluetooth*® Smart module. It features the A20737A AIR module, which uses Broadcom's BCM20737 chip. The A20737A AIR module is Globally certified*, and is *Bluetooth* SIG qualified.

* Global certification is an ongoing process, please call for confirmation regarding your specific locations



A20737A-MSDK1

Features

- Includes Multi-Sensor Development Board featuring an Accelerometer, a Magnetometer, an IR Temperature Sensor, a Buzzer, a Tri-color LED, a Joy Stick, and a Coin Cell Battery holder
- One USB 2.0 cable (Type A to Micro-B)
- Two Single row pin headers can be soldered down to gain access to all the pins in the A20737A module
- Incorporates Broadcom's BCM20737
- Tiny 11x13x2.5 mm footprint of the A20737A AIR module
- Pre-certified to FCC/IC and ETSI compliant
- Low power consumption
- Anaren's exclusive online development tool, *Atmosphere*
- *Atmosphere* generates and loads the embedded code on the Multi-Sensor Development Board, and creates an app that can be loaded onto a *Bluetooth* Smart mobile device



Applications are written with an easy-to-use graphic programming tool that includes a method for designing the layout of the app screen and the on board software

Benefits

- Provides GOOBE "great out of the box" wireless connectivity for easier development of applications based on the *Bluetooth* Smart standard.
- Provides an excellent educational/development tool for all levels of *Bluetooth* Smart expertise – as well as a clear, easy-to-understand migration path from development to production.
- Part of *Atmosphere*, a total solution from Anaren that includes development tools, firmware, applications support, and more.



Applications

Industrial controls and monitoring, remote controls, home/building automation, lighting systems, low power wireless sensor networks, and consumer electronics, sports monitoring, health & wellness, among many others

The *Bluetooth*® word mark and logos are registered trademarks owned by *Bluetooth* SIG, Inc. and any use of such marks by Anaren Inc. is under license. Other trademarks and trade names are those of their respective owners.



This product is not to be used in any implantable medical device or external medical device intended to regulate or monitor biological functions, including but not limited to devices such as pacemakers, defibrillators, cardiac resynchronization devices, pressure sensors, biochemical stimulators and neurostimulators. ANAREN MAKES NO WARRANTY OF FITNESS OR MERCHANTABILITY OF THIS PRODUCT FOR ANY USE OF THIS TYPE. Anaren shall not be responsible for any consequential damages arising from the sale or use of this product for any use of this type. The ultimate user of the product assumes all risk of personal injury or death arising from a prohibited use.



What'll we think of next?®

This member of the AIR family of wireless solutions is supported by Anaren's *Atmosphere* online development tool and features semiconductor technology from Broadcom.

Anaren, Inc. | 6635 Kirkville Road | East Syracuse, NY 13057
800.411.6596 | www.anaren.com/air | AIR@anaren.com



Anaren Integrated Radio (AIR)

Low-power RF modules, firmware & development tools that make it easy to 'go wireless'

Module family overview



General:

- 2.4-GHz RF transceiver incorporating *Bluetooth* Smart technology
- 1.7 to 3.6V operation
- Operating temperature -30°C to $+85^{\circ}\text{C}$
- Integrated ARM Cortex-M3 microprocessor core
- 512-Kbit EEPROM
- Programmable output power up to $+3\text{dBm}$
- Low Current Consumption (3.3V)
 - ◆ 25mA in Rx and 20mA in Tx @ $+3\text{dBm}$
 - ◆ 17mA in Tx @ -1dBm
- Typical sleep current $2\mu\text{A}$ @ 3.3V
- Excellent receiver sensitivity, -94dBm average with $<1\%$ BER
- Infrared modulator
- 10-Bit auxiliary ADC with nine analog channels
- Support for secure OTA updates
- Integrated LDO
- Supports SPI, I²C, PWM, UART and GPIO peripheral interfaces
- RoHS Compliant
- Shielded package with an integrated antenna
- LGA Footprint
- Small package size: 11mm x 13mm x 2.5mm
- Approximate weight 0.5 grams
- Certified/compliant for use Worldwide*



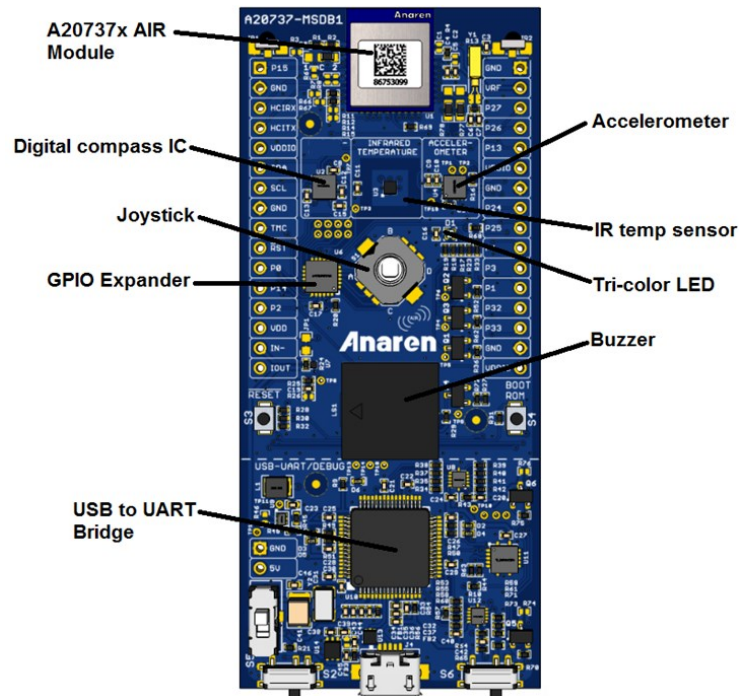
This product is not to be used in any implantable medical device or external medical device intended to regulate or monitor biological functions, including but not limited to devices such as pacemakers, defibrillators, cardiac resynchronization devices, pressure sensors, biochemical stimulators and neurostimulators. ANAREN MAKES NO WARRANTY OF FITNESS OR MERCHANTABILITY OF THIS PRODUCT FOR ANY USE OF THIS TYPE. Anaren shall not be responsible for any consequential damages arising from the sale or use of this product for any use of this type. The ultimate user of the product assumes all risk of personal injury or death arising from a prohibited use.

* The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Anaren Inc. is under license. Other trademarks and trade names are those of their respective owners.

IMPORTANT: The Multi-Sensor Development (A20737x-MSDK1) kit is a tool to aid in the development and testing of wireless communication applications; please contact Anaren if you will be using in the production of wireless end-products.

Layout information

Multi-Sensor Development Board features shown below; see User's Manual for more information.



PLEASE NOTE:

- Additional information on Anaren's exclusive development tool, *Atmosphere* can be found at <https://atmosphere.anaren.com>
- Additional information on the Broadcom's BCM20737 can be found at <http://www.broadcom.com/wiced>

Nomenclature

A20737A-MSDK1

① ② ③

A	Manufacturer	Anaren
1	Chip series	20737
2	Form factor	A = Internal Antenna, C = Connector
3	Description	MSDK = Multi-Sensor Development Kit



Anaren®

What'll we think of next?®

This member of the AIR family of wireless solutions is supported by Anaren's *Atmosphere* online development tool and features semiconductor technology from Broadcom.

Anaren, Inc. | 6635 Kirkville Road | East Syracuse, NY 13057
800.411.6596 | www.anaren.com/air | AIR@anaren.com

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Anaren:

A20737AMSDK-1