Prepare to take off with AIR
The Anaren Integrated Radio (AIR) BoosterPack is designed to provide instant wireless connectivity to the TI LaunchPad Development Tool. Just follow the simple instructions below and you’ll be ‘on the AIR’ in minutes.

This kit contains:

- BoosterPack
- Firmware ICs
- Software CD

You may also need/want:

- Computer
- LaunchPad (2)
- Tools/Supplies
  - Soldering Iron
  - IC Puller
  - X-jumper
  - USB Battery

**Layout & Function:** See Users Manual for full description of all features

- A Pads for optional SWITCH
- B AIR Radio Module
- C Range Test optimal orientation indicator (see Users Manual)
- D Pads for optional LED
- E Data path jumper settings (preset defaults)
- F “Prototype area.” Use these pads to build your project onboard
- G Pads for MCU expansion

**Installation & Launch:** Follow these directions for quick setup

1. Insert the CD provided in the Anaren BoosterPack kit, and if prompted click the “Install AIR Booster Stack Lite” icon. If a menu of options does not automatically appear, click “autorun.exe” in the CD root menu.

2. If using on a computer where the LaunchPad drivers have not been previously installed, click the “Install LaunchPad USB Driver” menu option. The drivers are automatically installed.

3. Once the drivers are installed, follow the instructions in LaunchPad kit to verify hardware operation by running the ‘temperature measurement’ application.

4. Disconnect the Launchpad from the computer, and if required, solder the two 10-pin **male** headers to each LaunchPad.
5. Remove the 14-pin DIP ICs from each LaunchPad, and replace with the 20-pin DIP ICs included with the AIR-BoosterPack kit. When properly inserted, the DIP IC ‘pin 1’ notch will be towards the USB port.

6. For proper operation of the UART interface to the computer, the LaunchPad J3 jumpers must be modified:
   - For LaunchPad v1.4 and earlier, remove the TxD & RxD shunt jumpers, and replace with an “X-style” crossover pattern (not included).
   - For LaunchPad later versions, rotate the TxD and RxD shunt jumpers 90 degrees, as shown to the right.

7. Plug a BoosterPack module into each LaunchPad, ensuring proper orientation. When properly installed, the Rocket logos will ‘line-up’ on the LaunchPad and BoosterPack.

8. From the ATC-BoosterStack disc menu, click the “Install ATC-Booster Stack Lite GUI” menu option.

9. Connect the LaunchPad/BoosterPack assemblies to the USB ports, using the USB cables included in the LaunchPad kits.

**ATC-BoosterStack GUI:** See Users Manual for full description of all features
10. Launch the ATC – BoosterStack Lite software. The GUI screen will appear, and a trace for hub-node temperature will appear.

**IMPORTANT NOTE:** The *BoosterPack* is designed to comply with regulations in the following regions:

- Europe – ETSI (default)
- North America – FCC / IC

If the intended location of use is not within these regions, then you must first check with local regulatory agencies to determine any permissions/license/etc. are required prior to operation.

See *Disclaimers and Regulatory Information* included with the kit for more information.

11a. For use in **Europe**, skip to step 12.

11b. For use in **North America**, follow these steps:

   - Plug just one *LaunchPad/BoosterPack* USB cable into the computer.
   - Under “Logical Radio” select “1 A110LR09A, FCC”.
   - Click “Apply Configuration Changes”, the change is stored in the flash memory.
   - Repeat this step for the remaining *LaunchPad/BoosterPack* units (plugging only one in at a time).
   - Re-connect all *LaunchPad/BoosterPack* assemblies to the computer.

12. The *BoosterPack* firmware IC’s are shipped by default as ‘hub node’ (non-transmitting on startup) to satisfy regulatory requirements, and one *BoosterPack* must be toggled to “sensor node” for pairing to occur. The following is a subset of the full instructions contained in the *BoosterPack* Users Manual (see CD documentation folder).

   a) To toggle the *BoosterPack* from hub to sensor node, triple-click *LaunchPad* switch S2. The *LaunchPad* red LED will blink 3x to indicate successful change to ‘sensor node’.

   b) Press “Discover Nodes” on the GUI, and then immediately press and hold the sensor node “S2” switch for 2 seconds. When paired correctly, the sensor node will appear in the ‘paired nodes’ list.

   **NOTE:** The GUI display may ‘gray out’ for up to 10 seconds while nodes are discovered, this is normal.

13. To identify a particular node, click the “Green LED” check box on the paired nodes list to toggle the node LED.

*Still not connected? See Users Manual for troubleshooting!*
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– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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3. Use of this product only after you obtained the Technical Regulations Conformity Certification as provided in Radio Law of Japan with respect to this product.

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CAUTION! The AIR-BoosterPack contains ESD sensitive components. Precautions should be used when handling the device in order to prevent permanent damage.

For additional support, please visit the following website:

http://www.ti.com/launchpadwiki
http://www.ti.com/tool/430boost-cc110l
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