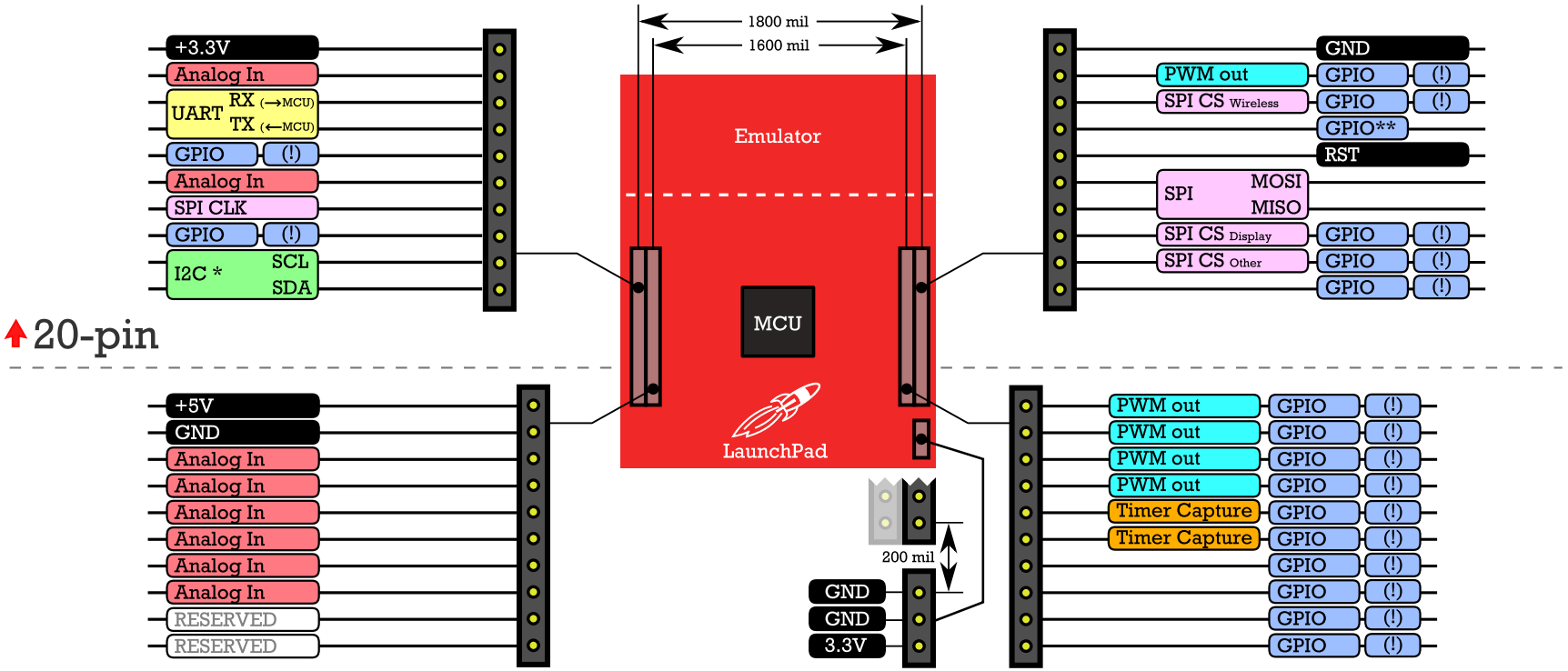
BoosterPack Pinout Standard

Updated Sept 1, 2013

All through-holes on 100 mil grid



The Legend:

Pin function — White boxes indicate functions that are not yet available on any existing LaunchPads. However, these functions are defined in the standard to "future-proof" the pinout.

! — The exclaimation point (!) indicates that the GPIO pin is interruptible.

GPIO** — Some LaunchPads do not comply with this GPIO pin (i.e. MSP-EXP430G2 LaunchPad uses this pin for programming/debugging). De-prioritize this pin when making a BoosterPack.

I2C* — Most LaunchPads have true hardware-enabled I2C at these pins, but some LaunchPads may not. If no hardware I2C is available, a software-emulated I2C is needed to adhere to standard.

Check the documentation of specific LaunchPad boards to confirm compatibility with the BoosterPack standard. While most LaunchPads comply with the standard, there may be some deviations.

Also note that LaunchPads usually offer more than one function at a specific pin. Be aware of pin muxing for additional features & capabilities at each pin.

Things to think about when making a BoosterPack

Accessibility

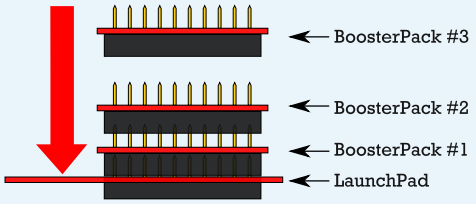
When finalizing the dimensions of your BoosterPack, be sure to think about easy access to underlying components on the LaunchPad (buttons, LEDs, test points, etc)

BoosterPack combos

Want to pair with other BoosterPacks? Be sure to review the pin-outs of each BoosterPack in your BoosterPack sandwich! Things like VCC, GND, SPI & I2C can ride the same bus, however other pins may conflict as more BoosterPacks are stacked.

Enable stack-ability

All LaunchPads & BoosterPacks must use female headers with long male leads (100 mil pitch)



Recommended part numbers for stackable headers:

Major League Electronics:
SSHQ-110-S-08-G-LF (Single row, 10x1)
SSHQ-110-D-08-G-LF (Double Row, 10x2)
Samtec:
SSW-110-23-F-S (Single row, 10x1)
SSW-110-23-F-D (Double Row, 10x2)

LaunchPad "Rocket" Logo usage

If your BoosterPack complies with the pinout standard above, you may place the rocket logo on your BoosterPack's silk screen.

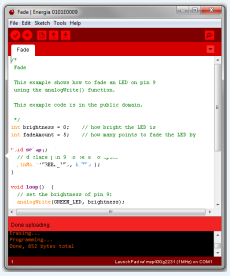
www.ti.com/launchpadrocket
(SVG file)

Label your pins!

Use your silkscreen wisely. Label pins, jumpers & other important components to improve your BoosterPack's ease-of-use.

Energia software libraries

Don't forget about software! Energia libraries are ideal companions to your hardware. One Energia library can potentially enable multiple LaunchPads to work with your BoosterPack. Be sure to provide the right functionality by exposing the right functions within your library. Upload your library on Git Hub!



Energīa
www.energia.nu

github
SOCIAL CODING

Code examples should also be created for popular IDEs such as TI's Code Composer Studio, or other tools.

Open Source Hardware & Licenses

Be sure to be aware of the licenses of the resources that you use! Also, don't forget to think about the license you publish your files under! Here are a few quick references that you may find useful.

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