



The image displays a variety of electronic components laid out on a dark surface. These include a white rectangular LiPo battery with gold contacts, a black PCB antenna, a LoRa module with a silver antenna, two black microphones with foam covers, a small black speaker, a custom black PCB with a silver antenna, a USB cable, and a small coin cell battery.

This module measures only 1.75"x1.25" but packs a surprising amount of technology into its little frame. At the heart is a GSM cellular module (we use the latest SIM800) the size of a

postage stamp. This module can do just about everything. This starter pack has a SMA connector. For the uFL version, [click here!](#) And for the Adafruit FONA 800 uFL Shield version [click here!](#)

- o Quad-band 850/900/1800/1900MHz - connect onto any global GSM network with any 2G SIM (in the USA, T-Mobile is suggested)
- o Make and receive voice calls using a headset OR an external 8Ω speaker + electret microphone
- o Send and receive SMS messages
- o Send and receive GPRS data (TCP/IP, HTTP, etc.)
- o Scan and receive FM radio broadcasts (yeah, we don't exactly know why this was included but it works really well)
- o PWM/Buzzer vibrational motor control
- o AT command interface with "auto baud" detection

Sounds delicious, right? So we plated this fine module onto a little breakout with all the extras you need to make your next project shine:

- o Onboard LiPoly battery charging circuitry so you can take your project on the go. Use any 500mAh+ LiPoly or Lilon battery and recharge over the MicroUSB when necessary. Two LEDs let you know when its charging and done
- o Standard 4-pole TRRS headphone jack. Use any 'Android' or 'iPhone'-compatible headset with mic
- o Breakouts for external 8Ω speaker and electret mic if you don't want to use a headphone
- o Level shifting circuitry so you can run it with 2.8V to 5V logic.
- o Vibrational motor (buzzer) driver so you can have noiseless notifications
- o SMA connection for external antenna
- o Indicator LEDs for power and network connectivity
- o Standard SIM slides into the back

On its own, this module can't do anything. It requires a microcontroller to drive it! We suggest and use an Arduino but any 3-5V microcontroller with a UART can send and receive commands over the RX/TX pins.

Microcontroller not included! We recommend an Arduino UNO to go along **SIM card not included!** If you are in the USA, we recommend TING

This Pack Contains:

- o 1x Adafruit FONA - Mini Cellular GSM Breakout - SMA Version - v1
- o 1x Right-angle Mini GSM/Cellular Quad-Band Antenna - 2dBi SMA Plug
- o 1x Lithium Ion Polymer Battery - 3.7v 1200mAh
- o 1x Mini Metal Speaker w/ Wires - 8 ohm 0.5W
- o 1x Wired Miniature Electret Microphone
- o 1x Cell-phone TRRS Headset - Earbud Headphones w/ Microphone
- o 1x Vibrating Mini Motor Disc

. Technical Details

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• **Datasheets:**

- o **FCC TCB BT**
- o https://cdn-shop.adafruit.com/datasheets/SIM800_FCC_TCB_BT.pdf
- o **R&TTE Statement of Opinion**
- o https://cdn-shop.adafruit.com/datasheets/SIM800_CE.pdf
- o **FCC Part 15B Test Report**
- o https://cdn-shop.adafruit.com/datasheets/SIM800_FCC_Part15.pdf
- o **FCC Part 15C Test Report**
- o https://cdn-shop.adafruit.com/datasheets/SIM800_FCC_Part15_BT.pdf
- o **FCC RF Test Report**
- o https://cdn-shop.adafruit.com/datasheets/SIM800_FCC_Report.pdf
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