

impC001-US (North America)

Industrial-grade connectivity for IoT

Built with the same technology that powers over a million WiFi and Ethernet products, the impC001 provides unmatched flexibility, enabling quick, cost-effective development and deployment of robust, secure IoT applications.

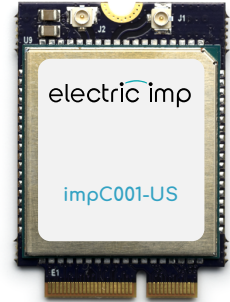
Delivered as a plug-in M2/NGFF format card, the impC001 is easy to integrate and allows products to evolve to newer cellular standards over time without the need for redesign.

Uniquely, there is no activation— the device is ready to use out of the box. You pay only for months where the device is active, and data is automatically pooled between devices on the same account.

To maximize coverage, the device automatically picks the best network available from T-Mobile, AT&T or Verizon (on band 4), and supports both LTE category 1 and 3G HSPA operation.

The impC001 also supports concurrent cellular, 10/100 Ethernet and WiFi connections, allowing applications to pick the best – or lowest cost – method to connect to the internet at any time.

As with all imps, every device in the field also has a paired cloud virtual machine, enabling efficient and flexible cloud-to-cloud integration to almost any service or enterprise backend. This architecture also reduces cellular data usage.



Actual size

Secure OS

- impOS provides secure connectivity and resource/power management
- Fail-safe OTA updates of OS & app
- Integrated BLE stack for external radio

Connectivity

- LTE cat 1 (2/4/5/12)
- 3G fallback (850/AWS/1900)
- Supports Ethernet & WiFi on host PCB

Physical

- M2/NGFF (key E) to host
- 2x u.FL antenna (primary, optional diversity rx)
- 38.50 x 27.20 x 4.70mm
- Operational range -40 to +85C

Processor

- 400MHz ARM Cortex-M7
- 512kB flash and >600kB RAM for user applications
- ECC protection on all flash and RAM

Comprehensive I/O

- 44 software configurable GPIOs
- 7 UARTs, 5 SPIs, 4 I²Cs, USB host
- 11 ADCs, 2 DACs

Electrical

- Radio power max 600mA @ 3.9v
- MCU power max 400mA @ 3.3v
- <20mA idle on-network
- <10uA sleep modes

Variants for Europe, Australia/New Zealand, and Japan are also available.

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