

2FF/3FF/4FF Datasheet

UICC | Multi-IMSI | Consumer Grade



Product Overview

The Velocity IoT UICC triple-cut plastic SIM is designed to provide seamless, secure, and reliable global connectivity for IoT devices. Built on a secure 32-bit architecture, it combines hardware-level protection with Velocity IoT's advanced multi-IMSI technology to ensure your devices stay connected regardless of geography.

Reduce the cost and complexity of managing multiple carrier relationships with a single, scalable solution built for global reach, seamless integration, and long-term flexibility.

Highlights

Powered by Velocity IoT's intelligent SIM applet, these features ensure reliable, flexible, and secure multi-network connectivity—while reducing operational complexity.

- **Simplified Global Connectivity:** Access multiple carriers through a single SIM SKU, leveraging a global IMSI library to support seamless deployments while reducing cost and complexity.
- **Autonomous Network Switching:** Automatic failover if carrier or IMSI becomes unavailable.
- **Local Breakout Performance:** High throughput and low latency with local packet gateways
- **Remote SIM Control:** Secure over-the-air (OTA) updates. Remotely update IMSI configurations and SIM settings via SMS or HTTPS.
- **Built-in Flexibility:** Supports 2G, 3G, 4G, LTE-M, NB-IoT, and 5G with the ability to upgrade to emerging technologies like satellite NTN.

Technical Specifications

Feature	Physical & Mechanical Specification
Form Factor	Triple-Cut - 2FF/3FF/4FF
Dimensions	25x15mm (2FF) / 15x12mm (3FF) / 12.3x8.8mm (4FF)
Contact Layout	8-pin (C1 - C8) ISO/IEC 7816 Layout +1
Card Material	High-durability Polycarbonate / PVC

Feature	Hardware & Architecture Specification
Secure Chipset	Trasna TSS380A1
Operating System	Kigen SIM OS J5u07.07
Memory Capacity	380KB Flash (User + System), ~200KB user file space
Write Endurance	10,000 cycles
Data Retention	10 Years Minimum

Feature	Electrical & Environmental Specification
Operating Temperature	-40°C to +85°C (Verified Hardware Limit)
Storage Temperature	-40°C to +105°C (chip level)
ESD Rating	HBM >4kV, CDM 500V (chip level)
Operating Voltage	1.62V to 5.5V (Support for Classes A, B, and C)
Communication	ISO/IEC 7816-2 compliant contact layout

Standards & Compliance

Feature	Reference Standard
ISO/IEC	7816 Series (Parts 1, 2, and 3)
ETSI	TS 102 221 (Physical and Logical Characteristics)
3GPP	TS 31.102 (USIM)
Regulatory	RoHS and REACH Compliant

Ordering Information

Part Number	Grade	Coverage
VIOT-1SIM-2FF3FF4FF-NA	Consumer	Coverage USA Including all 3 Major US Carriers <i>(Available on Digi-Key)</i>
VIOT-1SIM-2FF3FF4FF-GL	Consumer	Global Coverage <i>(Available on Digi-Key)</i>
VIOT-1SIM-2FF3FF4FF	Consumer	Custom Order

Sales: sales@velocityiot.com

Support: support@velocityiot.com