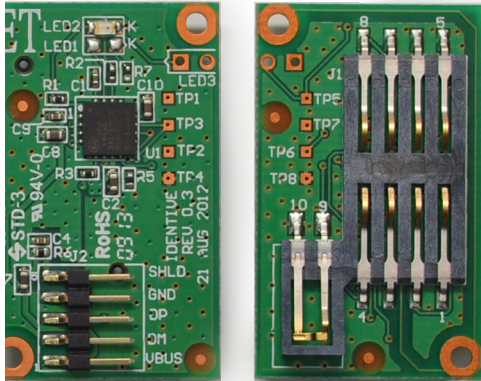# uTrust 2500-EE

ISO/IEC7816 reader/writer Module with Enhanced ESD protection

■ INTEGRATION

- Ultra-compact, super robust and easy-to-integrate
- Performance-oriented design, streamlined for mobile operation
- Made for harsh ESD environments ompact and easy-to-integrate performance-oriented design

■ RELIABLE AND COMPLIANT

- Industry and Government grade device with full support and compliance to EMV 2011 and GSA FIPS 201
- 16kV ESD hardened device with extra Electro Static Discharge (ESD) protection circuitry
- Conformal coating to protect the board from adverse environmental conditions
- Supports all major smart card ICs and technologies in one device upports all major smart card ICs and technologies in one device

■ FAST

Transaction time optimized for maximum end-user acceptance

Identiv's uTrust Smart Card Reader Module 2500R-EEi s the ideal design for a wide range of embedded applications. Providing full compliance with all major industry standards — including ISO/IEC 7816, USB CCID, PC/SC, and Microsoft WHQL — uTrust 2500R-EE works seamlessly with virtually all contact smart cards and PC operating systems. The uTrust 2500R-EE-Enhanced ESD is designed for higher immunity, up to 16KV Electrostatic Discharge (ESD) along with conformal coating, making this the module of choice for industrial-grade applications. Full support and compliance to EMV 2011 and GSA FIPS 201 expands daily use to very specific applications requiring additional security and data protection.

uTrust 2500R-EE represents the perfect mix of performance with compact design. The extended card data transmission rate of up to 600 kbps and the support of TA1=97 enables the shortest possible transaction time for maximum end-user convenience.

With uTrust 2500R-EE, the end user experiences convenience, transaction-time efficiency, security, and reliability for embedded applications including smart metering, vending and dispensing machines, printers, payment devices, e-service kiosks, and high-security use cases for federal governments. It features easy and complete support for all major contact smart cards. e-banking, and e-commerce.

PARAMETER	uTrust 2500-EE
Contactless Interface	
Host Interfaces	USB 2.0 Full speed (12 Mbps)
Supported Standards	• ISO/IEC 7816 Part 1 to 4 • EMV 2011 Ver 4.3-Ready
Supported Tag ICs	All major ISO/IEC 7816 compliant Smart Card and Synchronous cards
Smart Card Protocols	T=0, T=1, Synchronous cards I2C and 3-wire
Smart Card Interface Speed	• Up to 600 kbps • TA1=97
Smart Card Clock Frequency	ISO/IEC 7816 compliant; Operates up to 16 MHz
Supported Smart card Types	5V, 3V and 1.8V, ISO/IEC 7816 Class A/B/C

PARAMETER	uTrust 2500-EE
Power to Smart Card	60mA in Class A; 55mA in Class B; 35mA in Class C
Smart Card Detection	• Card present switch • Automatic power on/off • Short circuit protection
Card Size	ID-1
ID-1	• 8 pin ID-1 Sliding Contact Socket • C4/C8 support • Card detect switch
MTBF	100,000 hours
Driver and Software	
PC/SC Driver	PC/SC Specification Ver. 2.01.09 for: • Windows® XP/Vista/7/8/10 (32 and 64 bit) • Windows® Server 2003/2008/2012 • Windows® CE 6.0, 7.0 • MacOS MacOS 10.5.x-10.15.x • Linux 2.4.x, 2.6.x, 3.x, 4.x, 5.x (32 and 64 bit) • Android 4.0 and higher
Software	• PC/SC API • CT-API (through wrapper on top of PC/SC) • M-Card API (through wrapper on top of PC/SC)
Operating Conditions	
Power Supply	Bus-powered USB
Power Consumption	<6mA excluding smart card; <20mA with standard card; <500µA in standby mode
Operating Temperature Range	0° to 50° C (32° to 122° F)
Storage Temperature Range	-20° to 60°C (-4° to 140° F)
Operating Humidity Range	Up to 95% RH non-condensing
Durability Sliding Contact	100,000 card insertions
Connector	5-Pin Header connector; 2 mm pitch
Status Indicator	Dual-color LED: Green/yellow
Firmware	SmartOS™
Firmware In-Field Upgradeable	No
Systems/Standards	ISO/IEC 7816, USB 2.0 Full Speed, CCID, Microsoft® WHQL
Regulatory/Environmental	CE, FCC, RoHS2, REACH, WEEE

Technical data is subject to change without notice.

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Identiv, Inc.

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