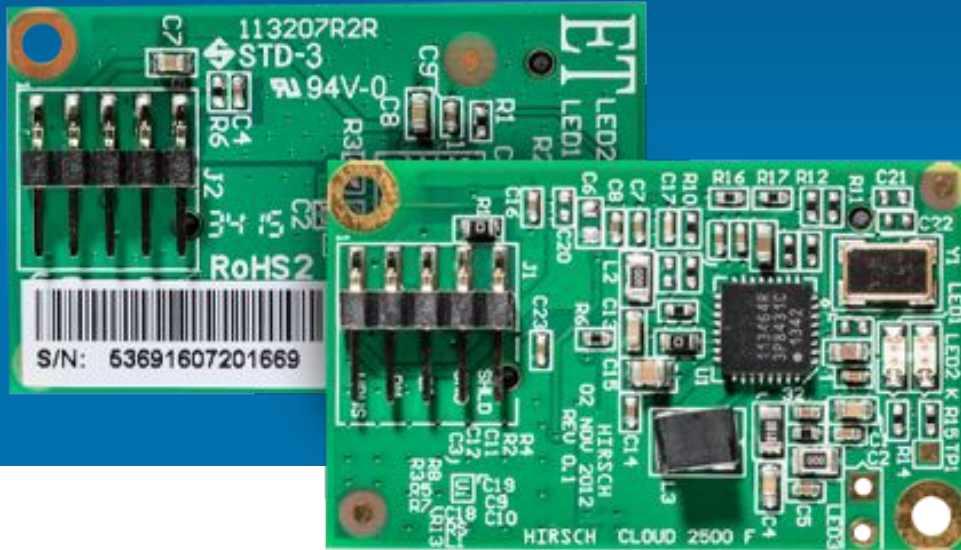




# uTrust 2500 F

## Contact Smart Card Reader Module with Flash



Application-ready CAC and PIV-approved reader module with upgradable firmware.

The uTrust 2500 F contact smart card reader with upgradeable firmware is ideal for a wide range of embedded applications. Fully compliant with industry standards including ISO/IEC 7816, USB CCID, PC/SC, and Microsoft WHQL, it works seamlessly with most contact smart cards and PC operating systems. Full support for EMV 2011 ensures secure transactions for applications requiring enhanced data protection.

Designed for performance and compactness, the module supports a high card data transmission rate of up to 600 kbps and TA1=97 for quick transaction times,

ensuring maximum end-user convenience. The uTrust 2500 F is ideal for embedded applications such as smart metering, vending machines, printers, payment devices, e-service kiosks, and high-security use cases for government agencies.

The module features Hirsch SmartOS™ firmware, which allows secure in-field upgrades via onboard flash memory. Its flexibility ensures long-term investment protection while providing complete support for all major contact smart cards, offering a reliable solution for various industries.

### Convenient

- Ultra-compact and robust design
- Cables available in USB-A or USB-C; sold separately

### Supports All Applications

- Supports ISO/IEC 7816 ID1 contact smart cards

### Fast and Convenient

- Transaction time optimized for maximum end-user acceptance
- Ready-to-use driver support for all PC and MAC OS

### SmartOS™ Powered

- In-field firmware upgradeable

## uTrust 2500 F

Parameter	Details
<b>Supported Standards</b>	ISO/IEC 7816 ID1, Class A/B/C support, T=0 , T=1 protocol EMV 2011 Ver 4.3 Level 1
<b>Supported Smart Card Types</b>	5V, 3V and 1.8V, ISO/IEC 7816 Class A/B/C
<b>Smart Card Interface</b>	ID1 8 pin sliding contact, Card present switch, C4/C8 support
<b>Supported Tag ICs</b>	All major ISO/IEC 7816 compliant Smart Card and Synchronous cards
<b>Protocols</b>	T=0, T=1, Synchronous cards I2C and 3-wire
<b>Interface Speed</b>	Up to 600 kbps; AI=97
<b>Clock Frequency</b>	ISO/IEC 7816 compliant; Operates up to 12 MHz
<b>Power to Smart Card</b>	60mA in Class A; 55mA in Class B; 35mA in Class C
<b>Smart Card Detection</b>	Card present switch, automatic power on/off, short circuit protection
<b>Card Size</b>	ID-1
<b>Driver and Software</b>	
<b>PC/SC Driver</b>	PC/SC Specification Ver. 2. 04. 14. for: Windows® 7/8/10/11 (32 and 64 bit), Windows® Server 2008/2012/2016/2019, WindowsXP, MacOS 10.9.x - 12.2.x, Linux 2.x, and 3.x, 4.x, 5.x (32 and 64 bit), Android 8.0 and higher
<b>Software</b>	PC/SC API, CT-API (through wrapper on top of PC/SC), M-Card API (through wrapper on top of PC/SC)
<b>Operating Conditions</b>	
<b>Power &amp; Communication</b>	USB 2.0 Bus-powered
<b>Power Consumption &amp; Delivery</b>	<15mA excluding smart card; <25mA with standard card; <500µA in standby mode
<b>Dimensions</b>	36 x 22 x 6.5 mm
<b>Weight</b>	2.75 +/- 0.05g
<b>Operating Temperature Range</b>	0° to 50° C (32° to 122° F)
<b>Storage Temperature Range</b>	-20° to 60° C (-4° to 140° F)
<b>Operating Humidity Range</b>	Up to 95% RH non-condensing
<b>Durability</b>	100,000 card insertions
<b>Connector</b>	5-Pin Header connector; 2 mm pitch
<b>Status Indicator</b>	Dual-color LED: Green/yellow
<b>Firmware In-Field Upgradeable</b>	Yes

## uTrust 2500 F Continued

Parameter	Details
<b>Certifications / Compliance</b>	
<b>Systems/Standards E</b>	ISO/IEC7816, USB 2.0, CCID, Microsoft® WHQL
<b>Regulatory/Environmental</b>	CE, FCC, RoHS2, REACH, WEEE
<b>Product Part Number</b>	905399-2 113259R2R (cable usb-a) 114562R2R (cable usb-c)

We are committed to ensuring that all of our products are PFAS-free and that the minerals used are responsibly sourced. Through rigorous due diligence and adherence to industry standards, we strive to provide products that are safe, sustainable, and ethically produced.