ICT Proximity Key Tag

The ICT Proximity Key Tag provides a complete multi technology smart RFID solution. Available with 125kHz or 13.56MHz technology, or as a multi technology tag combining both, it delivers maximum compatibility while providing a path forward to the latest technology.

An extremely durable compact design offers supreme reliability and convenience, while the IP68 rating means these tags are resistant to heat, pressure and chemicals, making them suitable for the harshest environments.

Feature Highlights

> Utilizes highly secure 13.56MHz MIFARE DESFire EV3 smart card technology

> Mutual authentication, AES 128, DES and triple-DES data encryption with unique 56-bit serial number

> Open solution with read / write functionality

> Improve security of existing 125kHz applications with dual technology transition cards

> Overmolded design prevents access to the tag's components

> Laser engraved tag identification

> Environmental rating of IP68 ensures maximum durability

Convenient

The thin, compact design allows the tag to be carried in a wallet or purse, or easily attached to a keyring. Use with a lanyard or strap clip for maximum accessibility.

Long Life and Durability

An extremely durable compact design offers the ultimate in reliability and convenience, while the IP68 rating means tags are resistant to water, heat, pressure and chemicals, making them suitable for the harshest environments.

Ideal Migration Solution

Migration from legacy and less secure low frequency 125kHz technology can be easily achieved using dual technology MIFARE tags that incorporate both high and low frequency tag inlays. This provides backwards compatibility with existing solutions and allows organizations to transition to smart readers at their own pace.

Support for a number of low frequency products is available.

MIFARE DESFire EV3

The latest addition to the MIFARE DESFire product family, MIFARE DESFire EV3 offers even more advanced hardware and software implementation on a brand new internal chip, and combines enhanced performance with a greater operating distance and improved transaction speed compared to its predecessors.

Based on global open standards for both air interface and cryptographic methods, it uses the same security certification level as IC products used for banking cards and electronic passports. Featuring an on-chip backup management system and mutual three-pass authentication, EV3 supports confidential and integrity-protected communication with secure dynamic messaging and mirroring.

> Fully compliant with the international standard ISO/IEC 14443 Type A 1-4 and ISO/IEC 7816-4
> Common Criteria EAL5+ security certified for IC hardware and software
> NFC Forum Tag Type 4 certified
> Secure, high speed command set
> Unique 7-byte serial number
> Choice of open DES/2K3DES/3K3DES/AES crypto algorithms
> Open AES 128 bit crypto algorithm in hardware
> Fully interoperable with existing NFC reader infrastructure
> Transaction timer mitigates risk of man-in-the-middle attacks
> Backwards compatible with all previous MIFARE DESFire generations

ICT Secured MIFARE

ICT Secured MIFARE is ICT's implementation of the MIFARE standard. Credential data is protected with a diversified authentication key and encrypted with an AES 256 algorithm, effectively plugging the known security flaw in the MIFARE standard.

Other MIFARE formats are also available.

125kHz Technology

125kHz technology offers a lower level of security but a good read range and short read time due to the lower power requirement and the small amount of data being transmitted. This allows users to simply present, swipe or wave their tag in the general direction of the reader to achieve a successful read.

Technical Specifications

	MIFARE DESFire EV3	MIFARE	MIFARE / 125kHz HID	125kHz
Ordering Code	PRX-TAG-DF-EV3-2K-B PRX-TAG-DF-EV3-4K-B	PRX-TAG-MF-B PRX-TAG-MF-W	PRX-TAG-MF-HID	PRX-TAG-LF
Technology				
MIFARE DESFire	✓	✗	✗	✗
MIFARE	✗	✓	✓	✗
125kHz	✗	✗	✓	✓
Operating Frequency				
13.56MHz	✓	✓	✓	✗
125kHz	✗	✗	✓	✓
EEPROM Memory				
Memory	2KB / 4KB	1KB	1KB	363 Bits
Number of Applications	Unlimited	N/A	N/A	N/A
Files per Application	32	N/A	N/A	N/A
Number of Sectors	N/A	16	16	N/A
Write Endurance	1,000,000	200,000	200,000	100,000
Communications				
RF Interface	ISO/IEC 14443A-4	ISO/IEC 14443A-3	ISO/IEC 14443A-3	ISO/IEC 11784/11785
Baud Rate	848 kbit/s	106 kbit/s	106 kbit/s	106 kbit/s
Typical Maximum Read Range *	39mm (1.5")	30mm (1.2")	30mm (1.2")	25mm (0.98")

* Read range is dependent upon reader size, technology and installation conditions and may vary accordingly.

Common Criteria Certification				
Compliance	EAL5+	✗	✗	✗
Features				
Tag Construction	Thin PA6 overmolded plastic			
Tag Marking	Laser engraving (optional)			
Programming	Factory or field			
Dimensions				
Dimensions	45 x 30 x 2.4 mm (1.77 x 1.18 x 0.093")			
Net Weight	Approx. 3g (0.1oz)			
Gross Weight	190g (6.7oz)	Qty: 50		
Operating Conditions				
Operating Temperature	-40˚ to 85˚C (-40˚ to 185˚F)			
Storage Temperature	-35˚ to 85˚C (-31˚ to 185˚F)			
Environmental Rating	IP68			