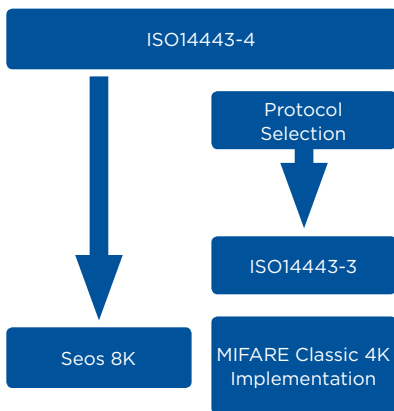




**MULTI-FUNCTION CREDENTIAL FOR PHYSICAL ACCESS CONTROL**

**Base Part Number: 5806**

- **Innovative** – Supports both Seos 8K and MIFARE Classic 4K implementation on a single RFID chip solution
- **Versatile** – Supports Seos advanced credential technology and MIFARE Classic implementation, allowing migration to a higher standard of security and functionality
- **Convenient** – Saves time and resources by allowing users to manage a single card instead of two
- **Secure** – Uses the latest open standards for encryption and authentication
- **Certified** – Based on Common Criteria (CC) EAL 5+ hardware platform



HID Global's innovative Seos card with MIFARE Classic implementation is a single RFID chip solution that supports both Seos (ISO14443A-4) and MIFARE Classic Implementation operating under ISO14443A-3.

Users can realize the benefits of Seos functionality within HID Global's iCLASS SE Reader infrastructure while remaining interoperable with MIFARE Classic implementation environments. Organizations can support ongoing interoperability or conveniently upgrade to HID iCLASS SE Readers gradually, as time and budget allow.

Features enabled through Seos technology include the use of mobile devices for secure access and the efficient management of multiple applications.

**Seos Programming Options**

- Secure Identity Object (SIO) – compatible with HID programming formats
- Field encoder ready – encode using CP1000D SE Encoder

**MIFARE Classic Programming Options**

- HID MIFARE application – compatible with Smart ID HID MIFARE series and specific iCLASS SE reader models
- Non-programmed or custom

**Additional Options**

- HiCo Magstripe (4000 Oe)
- Custom Graphics

**Ordering Information**

\*See application note PLT-04003 for full specification, SE reader product compatibility and ordering details.



## SPECIFICATIONS

	Seos*		MIFARE* Classic Implementation	
<b>Operating Frequency</b>	13.56 MHz		13.56 MHz	
<b>Communication Protocol Compliance</b>	ISO14443A-4		ISO14443A-3	
<b>SAK</b>	0x38			
<b>ATQA</b>	0x0200			
<b>Communication Speed</b>	Up to 848kbps		106kbps	
<b>Memory Type</b>	EEPROM		EEPROM	
<b>Memory Size</b>	8 Kbytes		4 Kbytes	
<b>Multiple Applications Support</b>	Yes (using Open Data Profile)		Yes	
<b>SIO Data Object Support</b>	Yes, default		No	
<b>HID Format Support</b>	Yes (wrapped in SIO)		Yes, optional using HID MIFARE Application	
<b>HID MIFARE Application</b>	N/A		Yes, optional (Smart ID and specific iCLASS SE reader models only)	
<b>Write Endurance / Data Retention</b>	Min 100,000 cycles / 10 years		Min 100,000 cycles / 10 years	
<b>Typical Transaction Time</b>	Data size dependent		Data size dependent	
<b>Extended Privacy Support</b>	No		No	
<b>Security Features</b>	Mutual authentication and diversified keys based on AES128		MIFARE Crypto™	
<b>Security Certification</b>	Common Criteria (CC) EAL 5+ HW certified platform			
<b>UID</b>	Global 4 byte static NUID			
<b>TYPICAL READ RANGE</b>				
<b>Reader Environment</b>	Standard <sup>1</sup>	On-Metal <sup>2</sup>	Standard <sup>1</sup>	On-Metal <sup>2</sup>
<b>iCLASS SE R10/R15 (including BLE)</b>	1.1-1.6" (3-4cm)	0.8-1.1" (2-3cm)	1.1-1.6" (3-4cm)	0.8-1.1" (2-3cm)
<b>iCLASS SE R40/RK40 (including BLE)</b>	0.8-2" (2-5cm)	Use a 1" Spacer <sup>5</sup> 0.8-1.6" (2-4cm)	0.8-2" (2-5cm)	Use a 1" Spacer <sup>5</sup> 0.8-1.6" (2-4cm)
<b>iCLASS SE RP10/RP15 (including BLE)</b>	0.8-1.1" (2-3cm)	Use a 0.5" Spacer <sup>6</sup> 0.8-1.1" (2-3cm)	0.8-1.1" (2-3cm)	Use a 0.5" Spacer <sup>6</sup> 0.8-1.1" (2-3cm)
<b>iCLASS SE RP40/RPK40 (including BLE)</b>	1.1-1.6" (3-4cm)	Use a 1" Spacer <sup>5</sup> 1.1-1.6" (3-4cm)	1.1-1.6" (3-4cm)	Use a 1" Spacer <sup>5</sup> 1.1-1.6" (3-4cm)
<b>iCLASS SE Bio</b>	Template R/W	Template R/W	N/A	N/A
<b>HID Global Product Compatibility</b>	Not All Seos or MIFARE Classic products are compatible See PLT-04003 for compatible products			
<b>Dimensions</b>	ID-1: 2.12" x 3.35" x 0.315" (54 mm x 85mm x 0.8mm)			
<b>Card Construction</b>	Composite with 60% PVC / 40% PET, laminated card			
<b>Weight</b>	About 5.5 g			
<b>Operating Temperature</b>	-40°F to + 158 °F (- 40 °C to + 70 °C)			
<b>Storage Temperature</b>	-31°F to + 122°F (- 35 °C to + 50 °C) for 1000h			
<b>Thermal Shock</b>	-31°F to + 176°F (- 35 °C to + 80 °C), 50 cycles of 5 minutes, 30s transition time			
<b>Chemical Resistance</b>	The card can withstand exposure salt water (5%) salt mist, acetic acid water (5%), carbonated sodium water (5%), sugared water (10%), fuel B and ethylene glycol (50%) for at least 24 hours			
<b>Card Marking</b>	©HID Seos* JMC4 JIP XT			
<b>Printable</b>	Yes (glossy white front /glossy white back) for best results use an HDP printer Direct-to-card printing is not recommended Contact your HID sales representative or find more information about FARGO* printers on the HID Global website.			
<b>Slot Punch</b>	Not available - Do Not Slot Punch			
<b>Other Options</b>	Custom graphics and magstripe			
<b>Standards Compliance</b>	ISO/IEC7810, ISO14443-4 (Seos™), ISO14443-3 (MIFARE* Classic*), ISO10373, ISO60529, ISO7816, RoHS			
<b>Warranty</b>	Lifetime Warranty			



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1 Based on dry wall mount with no ferrous material within close proximity

2 Based on metal surface or metal back-box mount

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