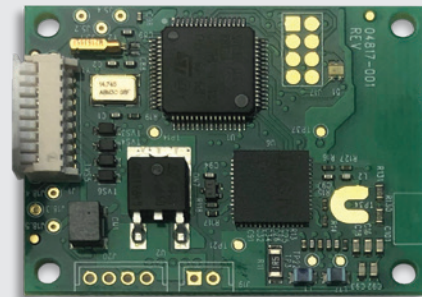# CSM-100L
BLUETOOTH LOW-ENERGY (BLE) OEM CONTACTLESS SMARTCARD MODULE

LOCKSETS　**VENDING**　**CUSTOM READERS**　**TERMINALS**

Conekt Mobile Smartphone
Access Control Solution

Frequency: 13.56 MHz and 2.4 GHz
Read Range:
Physical Credentials: Up to 1.5 inches (38 mm)
Mobile Credentials: Up to 15 feet (4.6 m)

Bluetooth Low Energy
Supports Conekt Smartphone Mobile Access Credentials

Optimized for MIFARE® DESFire® EV1 & EV2
Integrated High-Security Contactless Smartcard Support

MAXSecure™
Unique Security Feature

ValidID™
Fraudulent Data Detection Solution

Warranty
Farpointe Lifetime Warranty

Wiegand, ABA Track II Magnetic Stripe or OSDP*
Output Interface

*OSDP modules are independent models and need to be appended
 with the suffix "-OSDP" when ordering (Example: CSM-100L-OSDP).

CSM-100L BLUETOOTH LOW-ENERGY (BLE) OEM CONTACTLESS SMARTCARD MODULE

The CSM-100L is a member of Farpointe's CONEKT® mobile smartphone access control ID solution. Based upon the proven LEGIC® contactless digital radio frequency identification (RFID) platform, the CSM-100L OEM BLE/Contactless Smartcard Module is intended to be embedded into applications where the use of BLE-enabled smartphone credentials is desired.

The CSM-100L's compact design allows it to be embedded in tight places. Physical size is 1.7 W × 1.3 H × 0.41 D (at coil connector) inches (43.2 × 33 × 10.4 mm). The CSM-100L is capable of delivering non-contact read ranges up to 1.5 inches (38 mm) with traditional credentials, and up to 15 feet (4.6m) with mobile credentials. CSM-100L interfaces with a wide range of electronic access control systems by complying with either the legacy Wiegand and ABA Track II magnetic stripe formats, or the latest bi-directional Open Supervised Device Protocol (OSDP).

In addition to traditional contactless smartcard access credentials, such as clamshell cards and key tags, the platform also offers the option of mobile access credentials loaded on Bluetooth Low Energy (BLE)-enabled smartphones. This allows the smartphone to function as a contactless electronic access control credential.

Specifications	CSM-100L
Technology[1]	Contactless smartcard and Bluetooth Low Energy (BLE)
Frequency	13.56 MHz (contactless smartcard) and 2.4 GHz (BLE)
Mounting	Four holes, one at each corner for simple installation
Dimensions	1.7" W × 1.3" H × 0.41" D (43.2 mm × 33 mm × 10.4 mm)
Voltage[2]	8 – 14 VDC @ 40 mA typical, 195 mA peak (depending on coil)
Operating Temperature	−40° F to 149° F (−40° C to +65° C)
Read Range (typical)[3]	Physical Credentials: up to 1.5 inches (38 mm) Mobile Credentials: Up to 15 feet (4.6 m)
Interface	Wiegand (26-bit and custom formats), ABA Track II magnetic stripe (clock and data) or OSDP[4]
Audio Tone	Supports external beeper
Warranty	12 months
LED	Four-state standard (red, green, amber, and off). External LED option.
Compliance	Designed to comply with FCC and UL requirements. OEM is responsible for regulatory and safety approvals.
Technologies Supported	Interoperable with CSN[5] (may include ISO 14443 compliant credentials and MIFARE® Classic 1k & 4k, MIFARE® DESFire® EV1 & EV2, MIFARE UltraLight® and MIFARE Plus®), and Sector (may include Delta Card Sector[6], such as MIFARE® Classic 1k & 4k, MIFARE® DESFire® EV1 & EV2, as well as FIPS201 [PIV Type A], TWIC, and CAC credentials), as well as Conekt Mobile Access Credentials.[7]

NOTES:

1 Optimized for use with devices supporting BLE version 4.2 or newer.
2 Linear power supplies are recommended for best operation.
3 Using DC1-1 Delta Clamshell Contactless Smartcard with 12 VDC at the module. Other credentials may be less. Read ranges are further subject to the type of smartphone, as well as the manner in which it is used, covers or external batteries affixed, as well as the installation and its environment.
4 OSDP modules are independent models and need to be appended with the suffix "-OSDP" when ordering (Example: CSM-100L-OSDP).
5 CSN = Card Serial Number.
6 Examples include, but are not limited to, DC1-1, DM1-3, and DK1-3.
7 Conekt Mobile Access Credentials are intended to be supported by the current and preceding versions of Apple® iOS and standard compliant Google Android™ mobile operating software (OS). Custom OS variants may result in a loss of functionality.

Pin-Outs:

Connector One – Part: Molex 53048-0910

PIN	Description
J1-1	+VDC Input
J1-2	GROUND Input
J1-3	RESET (Active Low Input)
J1-4	BEEPER Control (Active Low Input)
J1-5	CARD PRESENT Output Signal
J1-6	DATA 0 Output
J1-7	DATA 1 Output
J1-8	RED LED Control (Active Low Input)
J1-9	GREEN LED Control (Active Low Input)

Connector Two – Part: Amp 292161-2

PIN	Description
J2-1	COIL A
J2-2	COIL B

PIN	Description
J3-1	GREEN LED Control (Active Low Input)
J3-2	RED LED Control (Active Low Input)
J3-3	BEEPER Control (Active Low Input)
J3-4	+VDC Input
J3-5	GROUND Input
J3-6	CARD PRESENT Output Signal
J3-7	DATA 0 Output
J3-8	DATA 1 Output
J4-1	Red LED Output
J4-2	Green LED Output
J4-3	Ground
J5-1	TX (TTL Serial Output)
J5-2	RX (TTL Serial Input)
J5-3	+VDC Out
J5-4	GROUND

Farpointe Data reserves the right to change specifications without notice.

Farpointe Data, Inc.
2195 Zanker Road
San Jose, CA 95131 USA
Office: +1-408-731-8700
Fax: +1-408-731-8705
support@farpointedata.com

www.farpointedata.com