

Indala MX MIFARE® Series credentials combine the high performance and flexibility expected from Indala. MIFARE® technology is the world standard in 13.56 MHz RFID solutions. MX MIFARE® products are manufactured to the highest quality standards. MX MIFARE® credentials have the memory structure and capacity to store multiple applications on a single credential. The data is protected with encryption keys used in the mutual authentication process. Therefore, no important data will be shared until the card and reader have been authenticated to each other. Whether providing access to a building or purchasing a beverage from a vending machine, MX MIFARE® is the flexible solution.

MX SERIES



MX MIFARE® ISO CARD

MIFARE ISO is a thin credit card-sized credential that complies with ISO 7810 and 7813 standards.

- 1K Byte (8,192 bits) or 4K Bytes (32,768 bits)
- Imageable with most direct-to-card printers
- Magnetic stripe option as well as multiple technologies (i.e. smart chips)
- Card is 0.030" (0.76 mm) thick. Its flexible design provides added convenience and storage in wallet or pocket

MX MIFARE® KEY

MIFARE KEY is the stylish keyfob that is easily attached to a lanyard, key ring, or badge holder.

- 1K Byte (8,192 bits) or 4K Bytes (32,768 bits)
- Ultrasonically sealed for the harshest environments
- Modern design and see-through case
- Lifetime warranty

MX MIFARE® TAG

MIFARE TAG is Indala's innovative tag that can turn a plastic ID badge into a contactless smart card credential.

- 1K Byte (8,192 bits) or 4K Bytes (32,768 bits)
- The convenience of contactless smart cards without the cost of rebadging
- MIFARE TAG's adhesive back attaches easily to an ID card or other non-metallic device
- The passive, no-battery design allows for 100,000 read/write operations and is warranted against defects in materials and workmanship for two years from date of shipment

1K Byte and 4K Byte Credentials

- Sector 0 is used as the MIFARE® Application Directory or MAD for short
- Unique 4 Byte (32 bit) ID per card (also know as Card Serial Number or CSN)
- Data retention: 10 years
- Number of single write operations = 100,000
- 1K (768 Bytes available) or 4K (3480 Bytes available) EEPROM Memory
- Each sector is lockable with two encryption keys
 - Key "A" to read only
 - Key "B" to read/write
- Each encryption key is 6 Bytes (48 bits)

MIFARE® 1K Byte (768 Bytes available)

Divided between
16 Sectors of
4 blocks,
16 Bytes each block

	0	1	2	3		0	1	2	3
0	MIFARE® Application Directory				8	16-Byte	16-Byte	16-Byte	16-Byte
1	16-Byte	16-Byte	16-Byte	16-Byte	19	16-Byte	16-Byte	16-Byte	16-Byte
2	16-Byte	16-Byte	16-Byte	16-Byte	10	16-Byte	16-Byte	16-Byte	16-Byte
3	16-Byte	16-Byte	16-Byte	16-Byte	11	16-Byte	16-Byte	16-Byte	16-Byte
4	16-Byte	16-Byte	16-Byte	16-Byte	12	16-Byte	16-Byte	16-Byte	16-Byte
5	16-Byte	16-Byte	16-Byte	16-Byte	13	16-Byte	16-Byte	16-Byte	16-Byte
6	16-Byte	16-Byte	16-Byte	16-Byte	14	16-Byte	16-Byte	16-Byte	16-Byte
7	16-Byte	16-Byte	16-Byte	16-Byte	15	16-Byte	16-Byte	16-Byte	16-Byte

MIFARE® 4K Byte (3480 Bytes available)

Divided between
40 Sectors

- 32 sectors consist of 4 blocks with a length of 16 Byte each
- 8 sectors consist of 16 blocks with length of 16 Byte each

	0	1	2	3		0	1	2	3
0	16-Byte	16-Byte	16-Byte	16-Byte	16	16-Byte	16-Byte	16-Byte	16-Byte
1	16-Byte	16-Byte	16-Byte	16-Byte	17	16-Byte	16-Byte	16-Byte	16-Byte
2	16-Byte	16-Byte	16-Byte	16-Byte	18	16-Byte	16-Byte	16-Byte	16-Byte
3	16-Byte	16-Byte	16-Byte	16-Byte	19	16-Byte	16-Byte	16-Byte	16-Byte
4	16-Byte	16-Byte	16-Byte	16-Byte	20	16-Byte	16-Byte	16-Byte	16-Byte
5	16-Byte	16-Byte	16-Byte	16-Byte	21	16-Byte	16-Byte	16-Byte	16-Byte
6	16-Byte	16-Byte	16-Byte	16-Byte	22	16-Byte	16-Byte	16-Byte	16-Byte
7	16-Byte	16-Byte	16-Byte	16-Byte	23	16-Byte	16-Byte	16-Byte	16-Byte
8	16-Byte	16-Byte	16-Byte	16-Byte	24	16-Byte	16-Byte	16-Byte	16-Byte
9	16-Byte	16-Byte	16-Byte	16-Byte	25	16-Byte	16-Byte	16-Byte	16-Byte
10	16-Byte	16-Byte	16-Byte	16-Byte	26	16-Byte	16-Byte	16-Byte	16-Byte
11	16-Byte	16-Byte	16-Byte	16-Byte	27	16-Byte	16-Byte	16-Byte	16-Byte
12	16-Byte	16-Byte	16-Byte	16-Byte	28	16-Byte	16-Byte	16-Byte	16-Byte
13	16-Byte	16-Byte	16-Byte	16-Byte	29	16-Byte	16-Byte	16-Byte	16-Byte
14	16-Byte	16-Byte	16-Byte	16-Byte	30	16-Byte	16-Byte	16-Byte	16-Byte
15	16-Byte	16-Byte	16-Byte	16-Byte	31	16-Byte	16-Byte	16-Byte	16-Byte

	0	1	2	3	4	5	6	7
32	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
33	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
34	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
35	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
36	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
37	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
38	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
39	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte
	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte	16-Byte

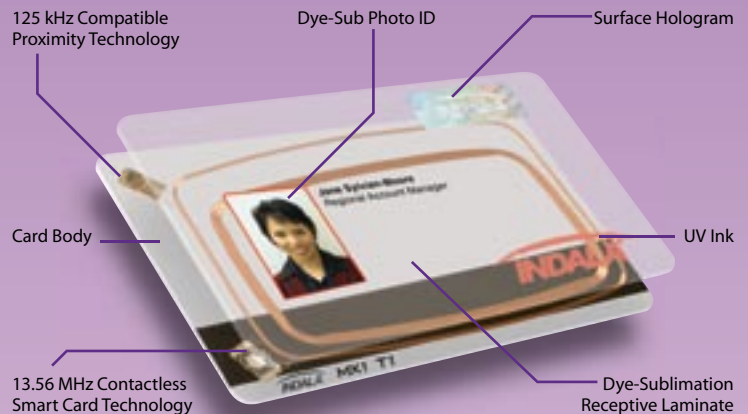


FP AND MX MIFARE® COMBO

ISO COMBO CARD - 13.56 MHz contactless smart card technology combined with 125 kHz proximity technology.

- 1K Byte (8,192 bits) or 4K Bytes (32,768 bits) MIFARE Memory/ 172 bits proximity memory
- Imageable with standard direct-to-card printers
- Magnetic stripe option as well as other technologies (i.e. smart chips) available
- Card is 0.30" (0.76 mm) thick. Its flexible design provides added convenience and storage in wallet or pocket

Upgrade to the benefits of 13.56 MHz contactless smart card technology by combining MIFARE® and Indala proximity technologies in a single card.



Secure the outside of the card with MX Premier. Choose a cost-effective anti-counterfeiting element such as an Ultra-Violet (UV) Fluorescent Ink or a Hologram.

Credential	MX MIFARE® ISO Card	MX MIFARE® KEY	MX MIFARE® TAG	FP-MX MIFARE® ISO Combo Card
Description	Imageable Card	Keyfob	Self Adhesive Tag	MIFARE® & Indala Prox Combination ISO Card
Part Number	MXISO-	MXKEY-	MXTAG-	FPMXI-
Memory Capacity	1K Byte (8,192 bits) or 4K Byte (32,768 bits)	1K Byte (8,192 bits) or 4K Byte (32,768 bits)	1K Byte (8,192 bits) or 4K Byte (32,768 bits)	1K Byte (8,192 bits) or 4K Byte (32,768 bits)
Application Sectors	16 for 1K Byte 40 for 4K Byte	16 for 1K Byte 40 for 4K Byte	16 for 1K Byte 40 for 4K Byte	16 for 1K Byte 40 for 4K Byte
Dimension	3.38"H X 2.12"W X 0.03"T (86mm X 54mm X 0.76mm)	1.725"H x 1.197"W x 0.215"T (43.8mm x 30.4mm x 5.46mm)	1.285" (3.264 cm) Round x 0.070" T (0.178 cm)	3.38"H X 2.12"W X 0.03"T (86mm X 54mm X 0.76mm)
Read Ranges	Up to 4" (10 cm)*	Up to 2" (5.08 cm)*	Up to 2" (5.08 cm)*	Up to 4" (10 cm)*
Weight	0.20 oz (6 g)	0.191 oz (5.4 g)	0.04 oz (1.18 g)	0.20 oz (6 g)
Operating Temperature	-22° to 122° F -30° to 50° C	-22° to 149° F -30° to 65° C	-50°F to 160°F -45°C to 70°C	-22° to 122° F -30° to 50° C
Material	PVC	PVC	Lexan	PVC
Slot Punch	Optional vertical location indicated on card	Standard vertical opening, large enough for a badge clip	Not Available	Optional vertical (location indicated on card)
Magnetic Stripe	Optional embedded 3-track high coercivity (4000 oersted)	Not Available	Not Available	Optional embedded 3-track high coercivity (4000 oersted)
Contact Smart Chip Module	Optional	Not Available	Not Available	Optional
Finish Front	White glossy front	Blue textured front with Indala logo	Textured front with Indala logo	White glossy front
Finish Back	White glossy back with slot punch indicator; Indala logo	Blue textured back with marking strip	Not Available	White glossy back with slot punch indicator; Indala logo
Dye Sublimation Print Ready	YES	Not Available	Not Available	YES
Custom Artwork	Available on both front and back sides with customer supplied artwork	Available on front side with customer supplied artwork	Not Available	Available on both front and back sides with customer supplied artwork
Identification Marking	Lower right-hand corner of back side includes batch code	Printed strip on the back side includes batch code	Includes batch or ID number on tag's back side	Lower right-hand corner of back side includes batch code
Programming	Factory or field programmable	Factory or field programmable	Factory or field programmable	Factory or field programmable
Coding	Wiegand, ABA Track 2 Magnetic Stripe, and others available	Wiegand, ABA Track 2 Magnetic Stripe, and others available	Wiegand, ABA Track 2 Magnetic Stripe, and others available	Wiegand, ABA Track 2 Magnetic Stripe, and others available
Color	White	Blue	Grey	White

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* Read ranges vary by reader and card choice.

APPROVALS

UL294/cUL, FCC Certification-United States, Canada Certification, CE Mark-Europe, Australia C-Tick, New Zealand EMC

WARRANTY

Indala warrants this product against defects in material and workmanship under normal use and service. The warranty period commences with the date of shipment. See complete warranty statement for further details. Indala reserves the right to discontinue any product without notice.

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