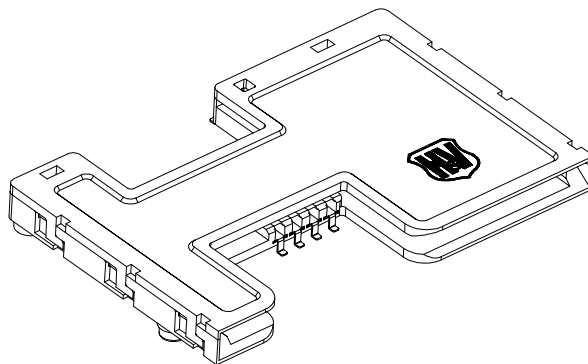


SPECIFICATION OF IC CARD ACCEPTOR

Model No.: ICA-610
Revision: 1.0
Issue Date: MAR. 09, 2006



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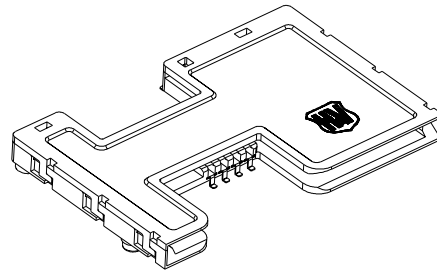
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1. INTRODUCTION

General:

The ICA-610 is an interface device for ISO based IC CARD or SMART card. It is designed for high performance and flexibility to give prospective customers a quick applications of the individual devices in there product series, and to facilitate selection if the device it decides that are best-suited to intended target applications.



Features:

- ◆ ISO 7816 Standard IC Card or SMART Card. ^(note)
- ◆ Compact Physical Size for Multi-Purpose Application.
- ◆ Module Type IC Contact Compatible with CP8. ^(note)
- ◆ High Reliability Low-Friction Contact Extension operation Life of Contact.
- ◆ Friction Contact Technology.
- ◆ EMV Compliant.
- ◆ RoHS Directive 2002/95/EC Compliant.

Applications:

- ◆ Access Control Terminals.
- ◆ Terminal Identification module.
- ◆ Telecommunication.
- ◆ Vending Machines.
- ◆ Other Identification recognition.

Note: All trademarks mentioned herein are the property of their respective companies.

2. TECHNICAL CHARACTERISTICS

2.1 General Characteristics:

| Items | Standard | Descriptions |
|--------------------|-----------------|------------------------------|
| Dimension | | 55.60L x 36.20W x 5.60H mm |
| Standoff Height | | 1.00 mm |
| Weight | | Approx. 5.90 g |
| Card size | ISO 7816 part 2 | 85.6 x 54 x 0.76 mm |
| Contact principle | | Friction technology |
| Operating position | | Shaft up / Down / Horizontal |
| Mounting System | | SMT Type (post optional) |
| Durability | | 100,000 cycles min. |

2.2 Electrical Characteristics: According to Standard IEC512

| Items | Standard | Descriptions |
|----------------------------------|-------------|--|
| 2.2.1 Data Contacts | | |
| Number of contacts | | 8 pins |
| Contact resistance | IEC512-2-2a | 50 m Ω typical, 100 m Ω max. |
| Insulation resistance Pin to pin | IEC512-2-3a | > 1000 M Ω / 500 V DC |
| Rated current | | 1 A max., 10 μ A min. |
| Dielectric withstanding voltage | IEC512-2-4a | 500 V AC rms 1 min. (sea level) |
| 2.2.2 Card Detector & Switch | | |
| Switch type | | Blade |
| Operation | | Normally Open |
| Contact resistance | IEC512-2-2a | 50 m Ω typical, 100 m Ω max. |
| Insulation resistance Pin to pin | IEC512-2-3a | > 1000 M Ω / 500 V DC |
| Rated current | | 1 A max., 10 μ A min. |
| Dielectric withstanding voltage | IEC512-2-4a | 500 V AC rms 1 min. (sea level) |

2.3 Mechanical Characteristics:

| Items | Standard | Descriptions |
|------------------------|-----------------|-------------------------|
| Card Insertion force | | 3N ~ 7N |
| Card Withdrawal force | | 3N ~ 7N |
| Contact force | | 0.2N ~ 0.6N |
| Contact location | ISO 7816 part 2 | |
| Data Contacts | | |
| Material | | Phosphor bronze |
| Plating | | Gold over Nickel |
| Card Detector & Switch | | |
| Material | | Phosphor bronze |
| Plating | | Gold over Nickel |
| Insulation material | | Thermoplastic, UL 94V-0 |

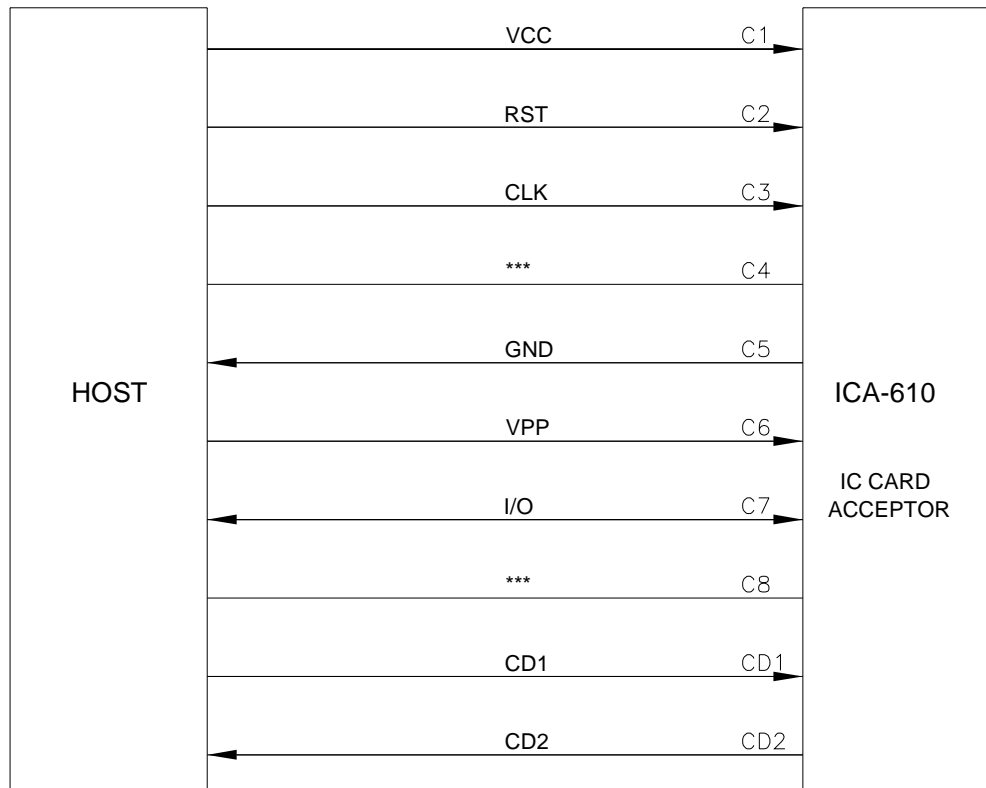
2.4 Solderability: According to Standard IEC68

| Items | Standard | Descriptions |
|------------|------------|---------------------|
| Wave | | Not applicable |
| IR re-flow | | 260°C, 10 sec. Max. |
| Manual | IEC68-2-20 | 360°C, 3 sec. Max. |

2.5 Environmental Characteristics: According to Standard IEC68

| Items | Standard | Descriptions |
|-----------------------|----------|-----------------|
| Operating temperature | | - 40°C ~ + 85°C |
| Operating humidity | | 10 % ~ 95 % RH |
| Storage temperature | | - 40°C ~ + 85°C |
| Storage humidity | | 10 % ~ 95 % RH |

3. INTERFACE

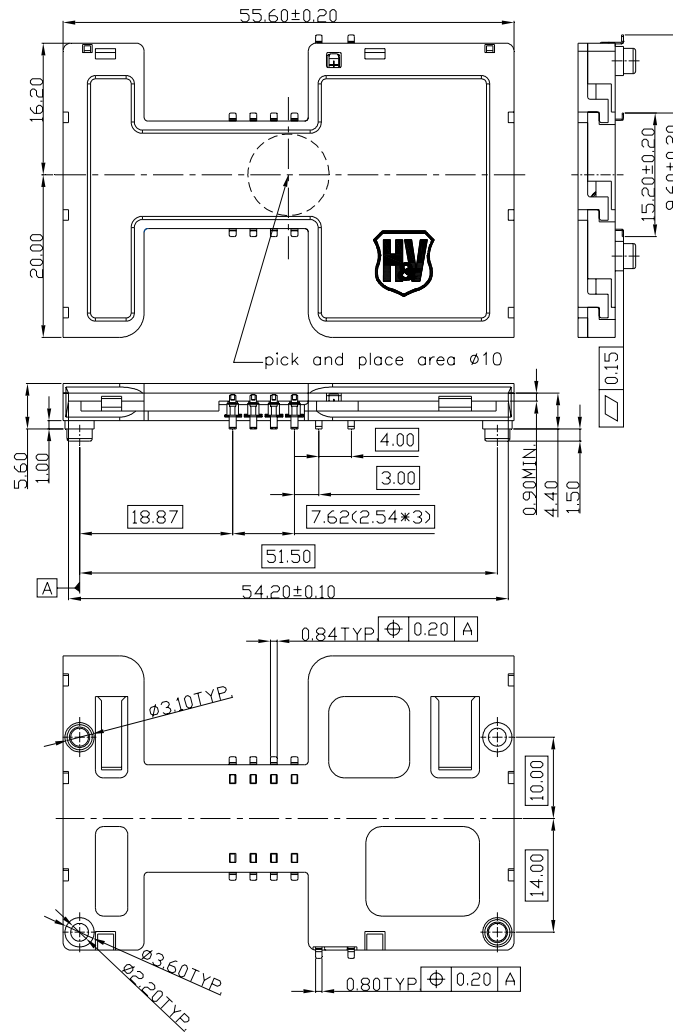


3.1 Signals

Signal interface connections for ICA-610 are shown below.

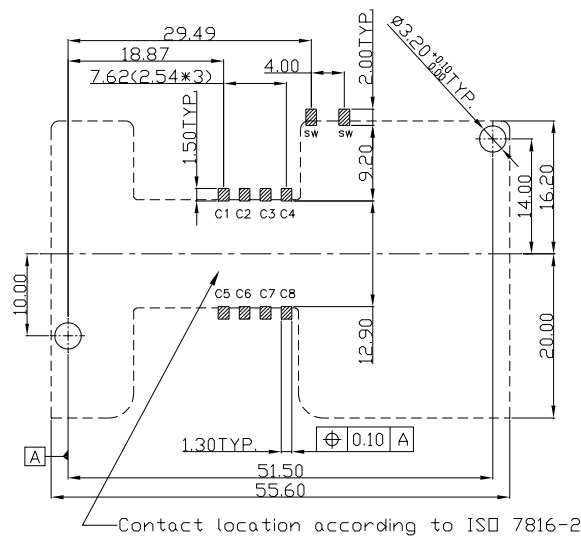
| Contact No. | Assignment | Description | Remark |
|-------------|------------|-----------------------------------|--------|
| C1 | VCC | Power Voltage | |
| C2 | RST | Reset Signal | |
| C3 | CLK | Clocking Signal | |
| C4 | *** | Reserved for feature use | |
| C5 | GND | Power and Signal Ground | |
| C6 | VPP | Programming Voltage | |
| C7 | I/O | Serial Data input/output | |
| C8 | *** | Reserved for feature use | |
| CD1 | CD1 | Switch contact 1 of card detector | |
| CD2 | CD2 | Switch contact 2 of card detector | |

4. MECHANICAL OUTLINE DRAWING



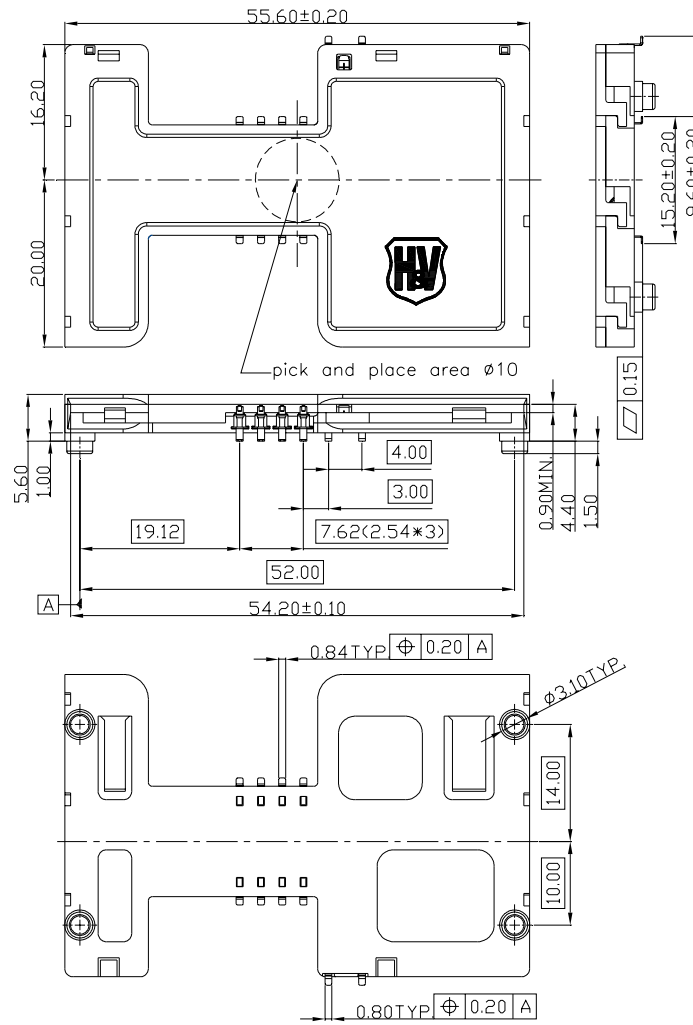
Unit: mm; Tolerances: ±0.15 mm

Figure 4.1 Mechanical Outline dimension (w/ 2 post)



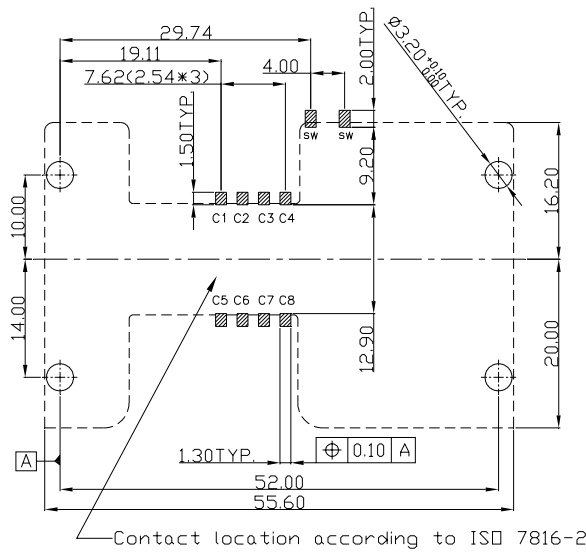
Unit: mm; Tolerances: ±0.05 mm

Figure 4.2 Reference dimension for PCB layout (w/ 2 post)



Unit: mm; Tolerances: ± 0.15 mm

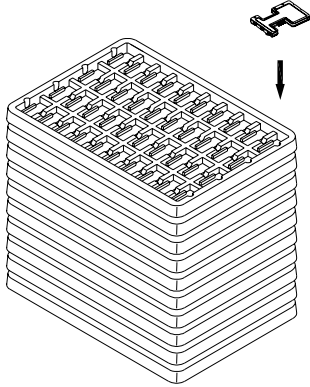
Figure 4.3 Mechanical Outline dimension (w/ 4 post)



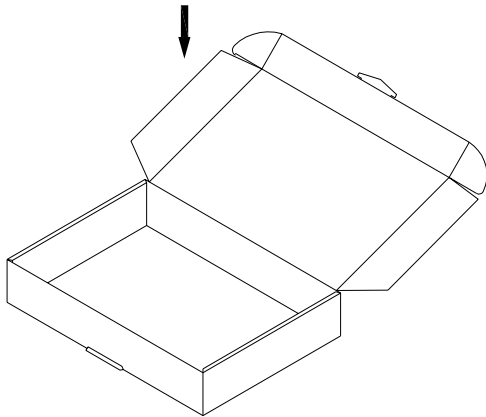
Unit: mm; Tolerances: ± 0.05 mm

Figure 4.4 Reference dimension for PCB layout (w/ 4 post)

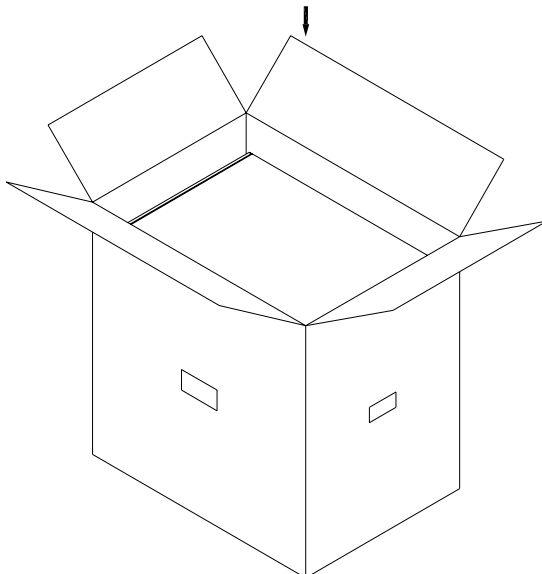
APPENDIX A: PACKING INFORMATION



Q'TY: 36 PCs per tray
 MEAS.: 44.0L x 31.5W x 1.25H CM



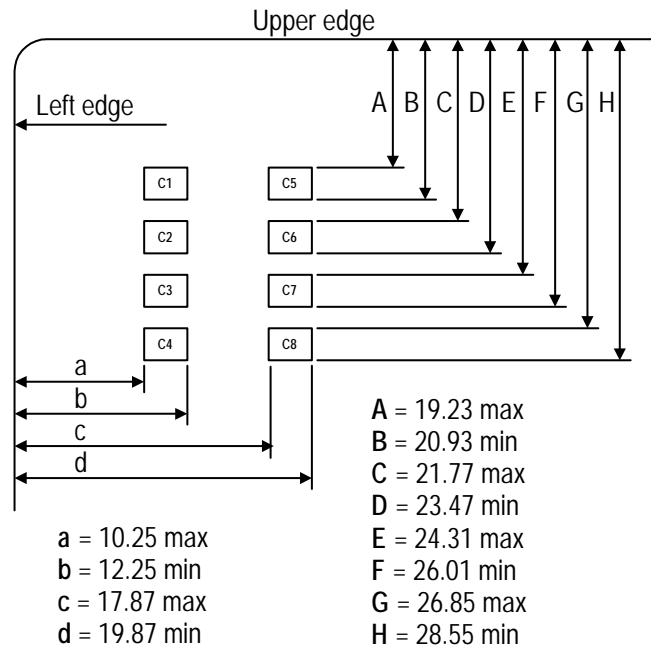
N.W.: 1.91 KGS
 G.W.: 3.11 KGS
 Q'TY: 324 PCs per box
 (9 trays set in order plus an empty tray)
 Meas.: 46.0L x 32.0W x 8.8H CM



N.W.: 9.57 KGS
 G.W.: 16.60 KGS
 Q'TY: 1,620 PCs per carton
 (5 boxes set in order)
 Meas.: 48.0L x 35.0W x 45.0H CM

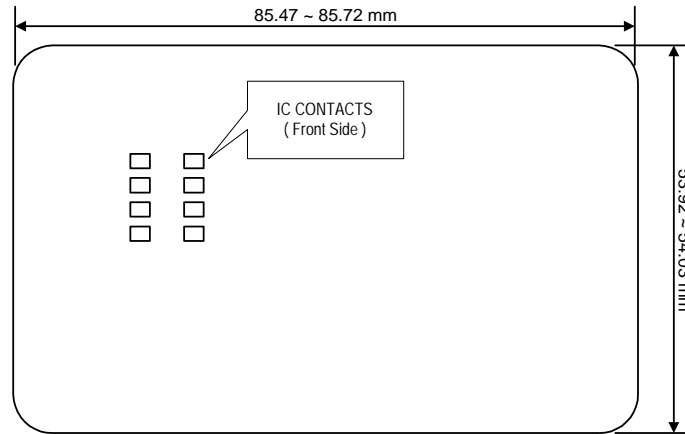
APPENDIX B: CARD SPECIFICATION (ISO 7816 Part 2)

Dimensions in millimeters (mm)



APPENDIX C: IC CARD CONTACT LOCATION (ISO 7816 Part 2)

Dimensions in millimeters (mm)



Thickness: 0.76 +/- 0.08 mm