



WWW.KLSELE.COM

Product Specification

Number: L-KLS1-SCC01(RU-618)

Name: Smart card connector

Specification: _____

Customer: _____

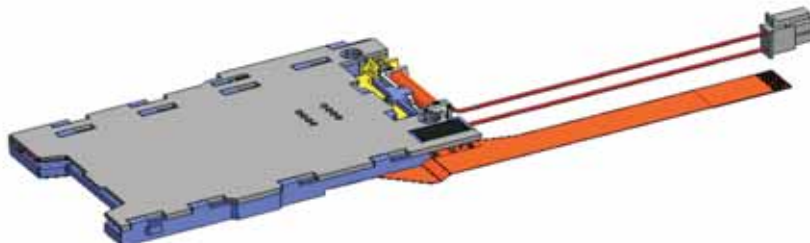
Date: 2019-12-05

Amphenol

Amphenol-Tuchel Electronics GmbH

Specification

Benennung / Name	Smart Card Connector
Dokument / Document	N 50 702 0039 Rev. 07
EP-Nummer / EP number	EP 200700690
Katalognummer / Catalogue Number	C702 10M008 925 4



Compile	Check	Review	Approval
Jenny	Jack.C		



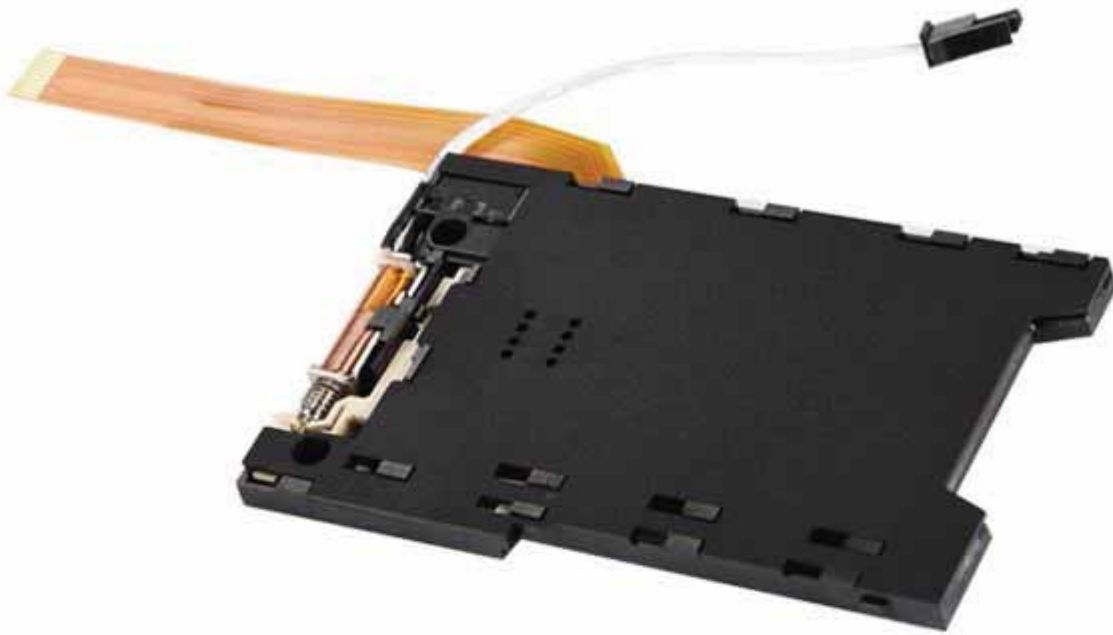
NINGBO KLS ELECTRONIC CO; LTD

Tel : 0086-574-86828566

Fax : 0086-574-86824882

ADD : NO. 8-1, RONGXIA RD. XIAPU SHANQIAN
INDUSTRIAL ZONE BEILUN NINGBO ZHEJIANG.

Smart card connector





NINGBO KLS ELECTRONIC CO; LTD

Tel : 0086-574-86828566

Fax : 0086-574-86824882

**ADD : NO. 8-1, RONGXIA RD. XIAPU SHANQIAN
INDUSTRIAL ZONE BEILUN NINGBO ZHEJIANG.**

TABLE OF CONTENTS

<u>ARTICLES</u>	<u>PAGE</u>
1 INTRODUCTION.....	1
General.....	1
Features.....	1
Applications.....	1
2 TECHNICAL CHARACTERISTICS.....	2
2.1 General Characteristics.....	2
2.2 Electrical Characteristics.....	2
2.3 Mechanical Characteristics.....	3
2.4 Solderability.....	3
2.5 Environmental Characteristics.....	4
3 INTERFACE.....	5
3.1 Signals.....	5
4 MECHANICAL OUTLINE DRAWING.....	6
APPENDIX A PACKING INFORMATION.....	7
APPENDIX B CARD SPECIFICATION(ISO7816 Part2).....	8
APPENDIX C SMART CARD CONTACT LOCATION(ISO7816 Part2)...	9



NINGBO KLS ELECTRONIC CO; LTD

Tel : 0086-574-86828566

Fax : 0086-574-86824882

**ADD : NO. 8-1, RONGXIA RD. XIAPU SHANQIAN
INDUSTRIAL ZONE BEILUN NINGBO ZHEJIANG.**

1. INTRODUCTION

General:

The RU-618 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:

- ★ ISO7816 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&NDS 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.



NINGBO KLS ELECTRONIC CO; LTD

Tel : 0086-574-86828566

Fax : 0086-574-86824882

ADD : NO. 8-1, RONGXIA RD. XIAPU SHANQIAN
INDUSTRIAL ZONE BEILUN NINGBO ZHEJIANG.

2. TECHNICAL CHARACTERISTICS:

2.1 General Characteristics:

Items	Standard	Descriptions
Dimensions		107×66×6.5mm
Weight		Approx. 45g
Card size	ISO7816 part2	85.6x54*0.76mm
Contact principle		Friction technology
Operating position		Shaft up/Down/Horizontal
Mounting System		Thru Hole With snap-in-lock
Durability		25000/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	50MΩ typical, 100 MΩ MAX
Insulation resistance Pin to Pin	IEC512-2-3a	> 1000 MΩ/ 500VDC
Rated voltage		50V MAX
Rated current		1A MAX , 10 μ A MIN
Dielectric withstanding voltage	IEC512-2-4a	500V AC rms 1min (sealevel)
2.2.2 Card Detector& Switch		
Switch type		Sealed switch
Operation(Optional)		Normally open
Contact resistance	IEC512-2-2a	50MΩ typical, 100 MΩ MAX
Insulation resistance Pin to Pin	IEC512-2-3a	> 1000 MΩ/ 500VDC
Rated voltage		12V MAX
Rated current		1A MAX , 10 μ A MIN
Dielectric withstanding voltage	IEC512-2-4a	500V AC rms 1min (sea level)



NINGBO KLS ELECTRONIC CO; LTD

Tel : 0086-574-86828566

Fax : 0086-574-86824882

**ADD : NO. 8-1, RONGXIA RD. XIAPU SHANQIAN
INDUSTRIAL ZONE BEILUN NINGBO ZHEJIANG.**

2.3 Mechanical Characteristics:

Items	Standard	Descriptions
Card Insertion force		3N-10N
Card Withdrawal force		3N-10N
Contact force		0.2N-0.6N
Contact location	ISO7816 part2	
2.3.1 Data Contacts		
Material		Phosphor bronze
Plating		Gold over Nickel Au20u”
2.3.2 Card Present Switch		
Material		Phosphor bronze
Plating		Gold over Nickel Au20u”
Insulation material		Thermoplastic, UL 94V-0

2.4 Solderability: According to Standard IEC68

Items	Standard	Descriptions
Wave	IEC-68-2-20	Not applicable
Vapor phase		Not applicable
IR re-flow		Not applicable
Manual	IEC-68-2-20	360°C 3 sec Max



NINGBO KLS ELECTRONIC CO; LTD

Tel : 0086-574-86828566

Fax : 0086-574-86824882

**ADD : NO. 8-1, RONGXIA RD. XIAPU SHANQIAN
INDUSTRIAL ZONE BEILUN NINGBO ZHEJIANG.**

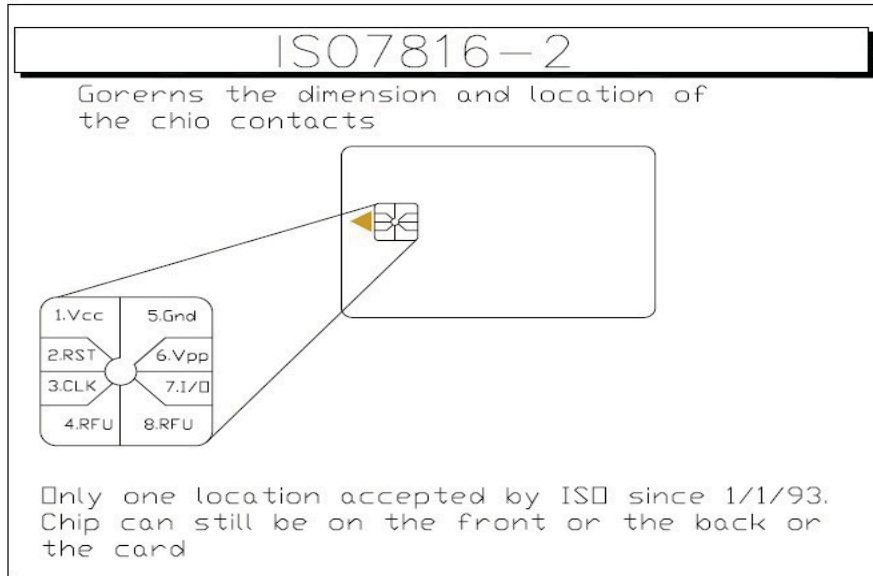
2.5 Environmental Characteristics: According to Standard IEC68

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
Thermal shock	IEC68-2-14	-40°C ~ +85°C, 5cycles
Damp heat	IEC68-2-3	40°C, 90%RH, 500HR
Random vibration	See Note1	No discontinuities of 1us or longer
Mechanical shock	See Note2	No discontinuities of 1us or longer
Salt-mist	IEC68-2-11	35°C, 5% NaCl, 48HR

Note1. Subject samples mated to ISO7816 PVC Smart Cards to 10-500 HZ. 20 minutes in each of 3 mutually perpendicular planes.

Note2. Subject mated samples to 10G'S half-sine shock pulse of 11 ms duration,3 shock in each direction applied along 3 mutually perpendicular planes, expect 4 G's shock pulses in direction of card withdrawal,18 total shock.

3. INTERFACE



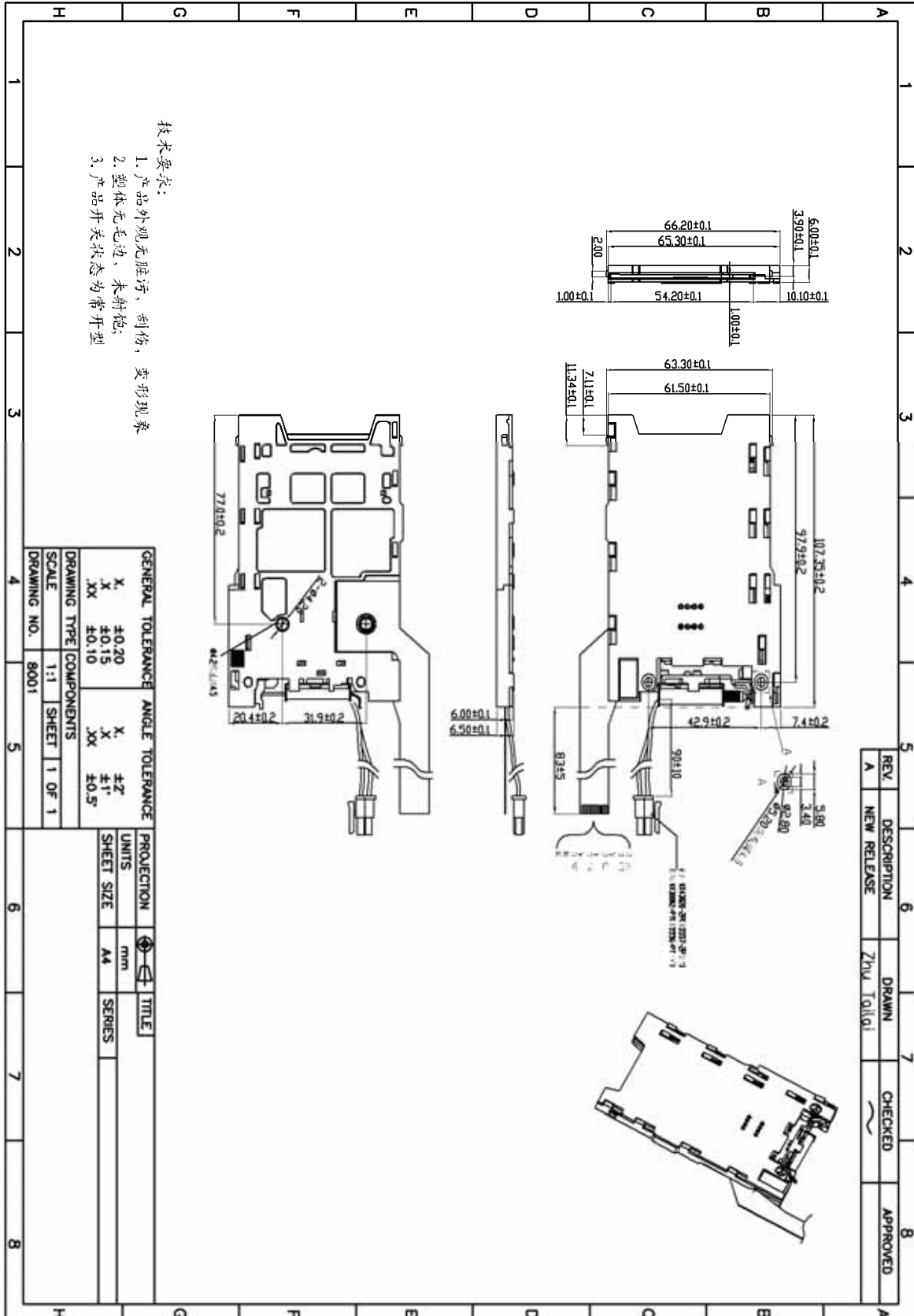
Standard IC card size 85.6X53.98X0.76mm

3.1 Signals

Signal interface connections for KF036 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 1 of card detector	

4. MECHANICAL OUTLINE DRAWING





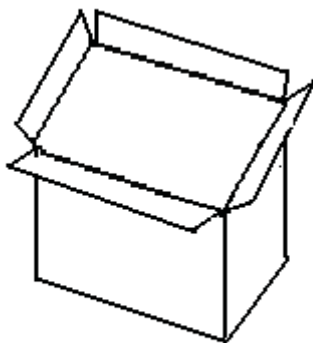
NINGBO KLS ELECTRONIC CO; LTD

Tel : 0086-574-86828566

Fax : 0086-574-86824882

ADD : NO. 8-1, RONGXIA RD. XIAPU SHANQIAN
INDUSTRIAL ZONE BEILUN NINGBO ZHEJIANG.

APPENDIX A: PACKING INFORMATION



net weight: 13.5kg

Gross weight: 16.0kg

Quantity per carton: 320PCS

Outline size: 460L*290W*340H mm



NINGBO KLS ELECTRONIC CO; LTD

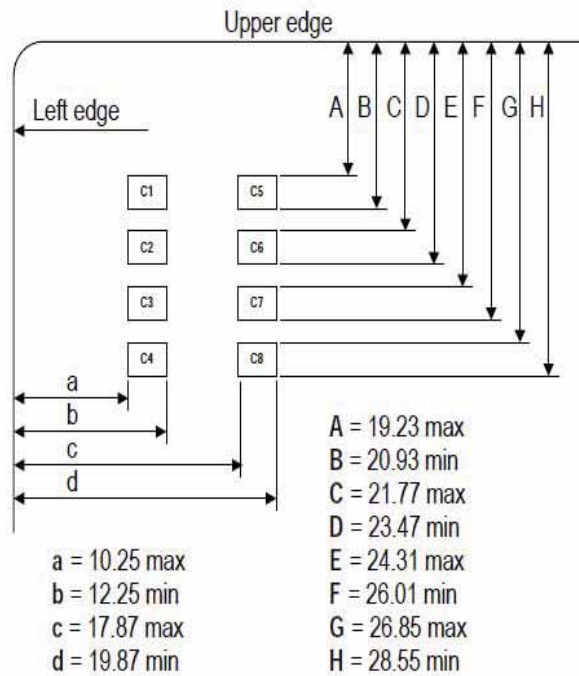
Tel : 0086-574-86828566

Fax : 0086-574-86824882

ADD : NO. 8-1, RONGXIA RD. XIAPU SHANQIAN
INDUSTRIAL ZONE BEILUN NINGBO ZHEJIANG.

APPENDIX B: CARD SPECIFICATION (ISO7816 Part2)

Dimensions in millimeters (mm)





NINGBO KLS ELECTRONIC CO; LTD

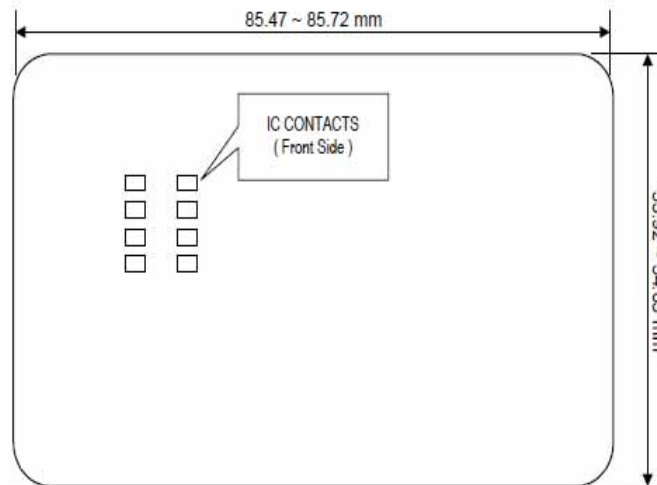
Tel : 0086-574-86828566

Fax : 0086-574-86824882

**ADD : NO. 8-1, RONGXIA RD. XIAPU SHANQIAN
INDUSTRIAL ZONE BEILUN NINGBO ZHEJIANG.**

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

Dimensions in millimeters (mm)



Thickness: 0.76 +/- 0.08 mm