

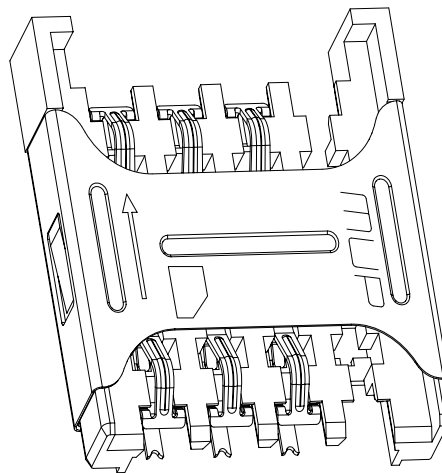
A rectangular stamp with a green border and a blue water-droplet background. The text "SAMPLE APPROVAL" is written in bold, dark blue, sans-serif capital letters in the center.

**SAMPLE APPROVAL**

**Model No.: MUP-C790**

**Revision: 1.0**

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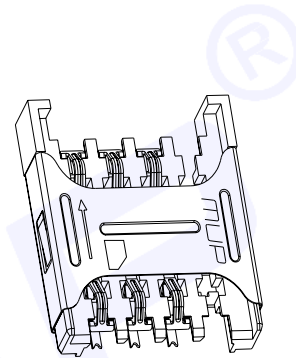
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## 1. INTRODUCTION

### 1.1 General

The C790 is in strict accordance with ETSI.TS.102.221 international recognized standard, It is designed for high performance and flexibility to give prospective customers a quick applications of the individual devices in their product series, Other kinds of models are optional, You need is our goal.



### 1.2 Features

- ◆ ETSI.TS.102.221 Standard Micro SIM Card
- ◆ Fast reaction capacity
- ◆ Broad application domain
- ◆ The superior performance
- ◆ Ideal stable performance

### 1.3 Applications

- ◆ Access Control Terminal
- ◆ Terminal identification module
- ◆ Telecommunication
- ◆ Handset
- ◆ Grasps pos machine
- ◆ Memory dense spoon management special-purpose
- ◆ Other Identification recognition

## 2. TECHNICAL CHARACTERISTIC

### 2.1 General Characteristics:

No.	Items	Standard	Descriptions
1	Dimensions		13.40LX13.40WX2.40H mm
2	Weight		Approx 0.50±0.1g
3	Card size	ETSI.TS.102.221	25.0×15.0×0.76mm
4	Contact principle		Friction technology
5	Mounting System		SMT(without post)
6	Durability		5,000 cycles Min.
<b>Material</b>			
1	Insulator		Thermoplastic UL94V-0
2	Shell		SUS
3	Contact		Phosphor bronze
4	Plating		Gold over nickel

### 2.2 Electrical Characteristics: according to standard IEC512

#### Data Contact

No.	Items	Standard	Descriptions
1	Number of Contacts		6 Pins
2	Contact highly		0.70±0.20mm
3	Insulation resistance pin to pin	IEC512-2-3a	>1000 MΩ/500 VDC
4	Rated voltage		50V max
5	Rated current		1A max., 10μA min.
6	Contact resistance	IEC512-2-2a	50 mΩ typical, 100mΩ max.
7	Dielectric withstanding voltage	IEC512-2-4a	500V AC rms 1min.(sea level)

**2.3 Mechanical Characteristics:**

No.	Items	Standard	Descriptions
1	Contact force		$\geq 0.5N$
2	Contact location	ETSI.TS.102. 221	

**2.4 Solder ability:**

No.	Items	Standard	Descriptions
1	Wave	IEC-68-2-20	Not applicable.
2	Vapor phase		215°C, 30sec.Max
3	IR re-flow		250°C, 5 sec.Max
4	Manual	IEC-68-2-20	370°C, 3 sec.Max.

**2.5 Environmental Characteristics**

No.	Items	Standard	Descriptions
1	Operation temperature		-40°C ~ +85°C
2	Operating humidity		10% ~ 95%RH
3	Storage temperature		-40°C ~ +85°C,
4	Storage humidity		10% ~ 95%RH
5	Thermal shock	IEC68-2-14	-40°C ~ +85°C, 5 cycles
6	Damp heat	IEC68-2-3	40°C, 90%RH, 500HR.
7	Salt-mist	IEC68-2-11	35°C, 5% NaCl, 24HR

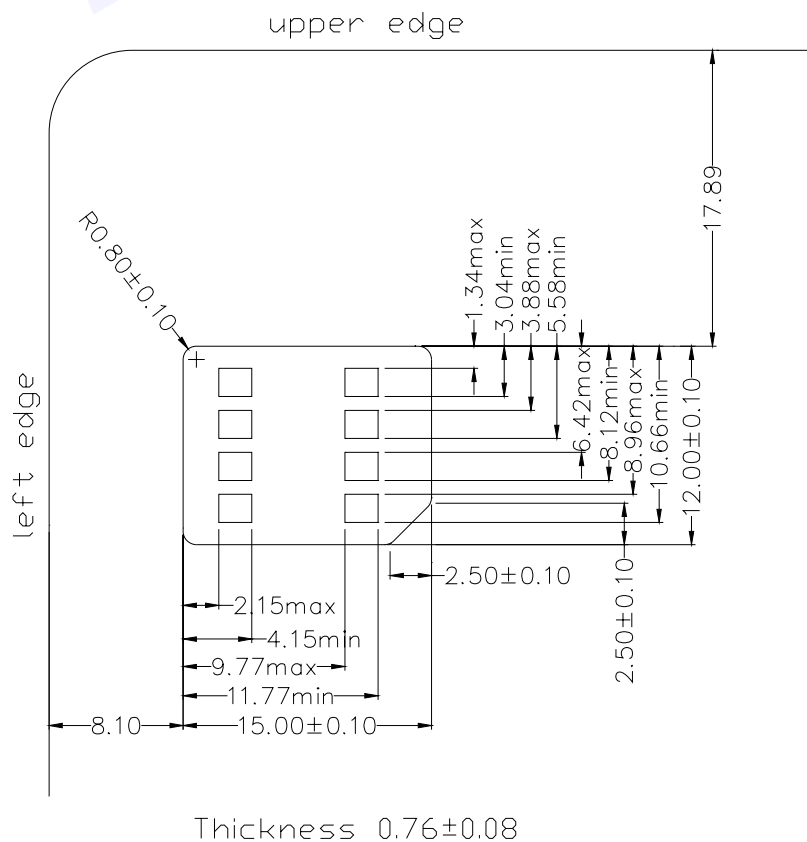
3. INTERFACE

3.1 Signal

Signal interface connections for C790 are shown below.

Contact No.	Assignment	Description	Remark
C1	Vcc	Power Voltage	
C2	RST	Reset Signal	
C3	CLK	Clock Signal	
C4	RFU	Reserve for future use	
C5	GND	Power and Signal Ground	
C6	Vpp	Programming Voltage	
C7	I / O	Serial Data input/ output	
C8	RFU	Reserve for future use	

3.2 MicroSIM Card Contact Location(ETSI.TS.102. 221)



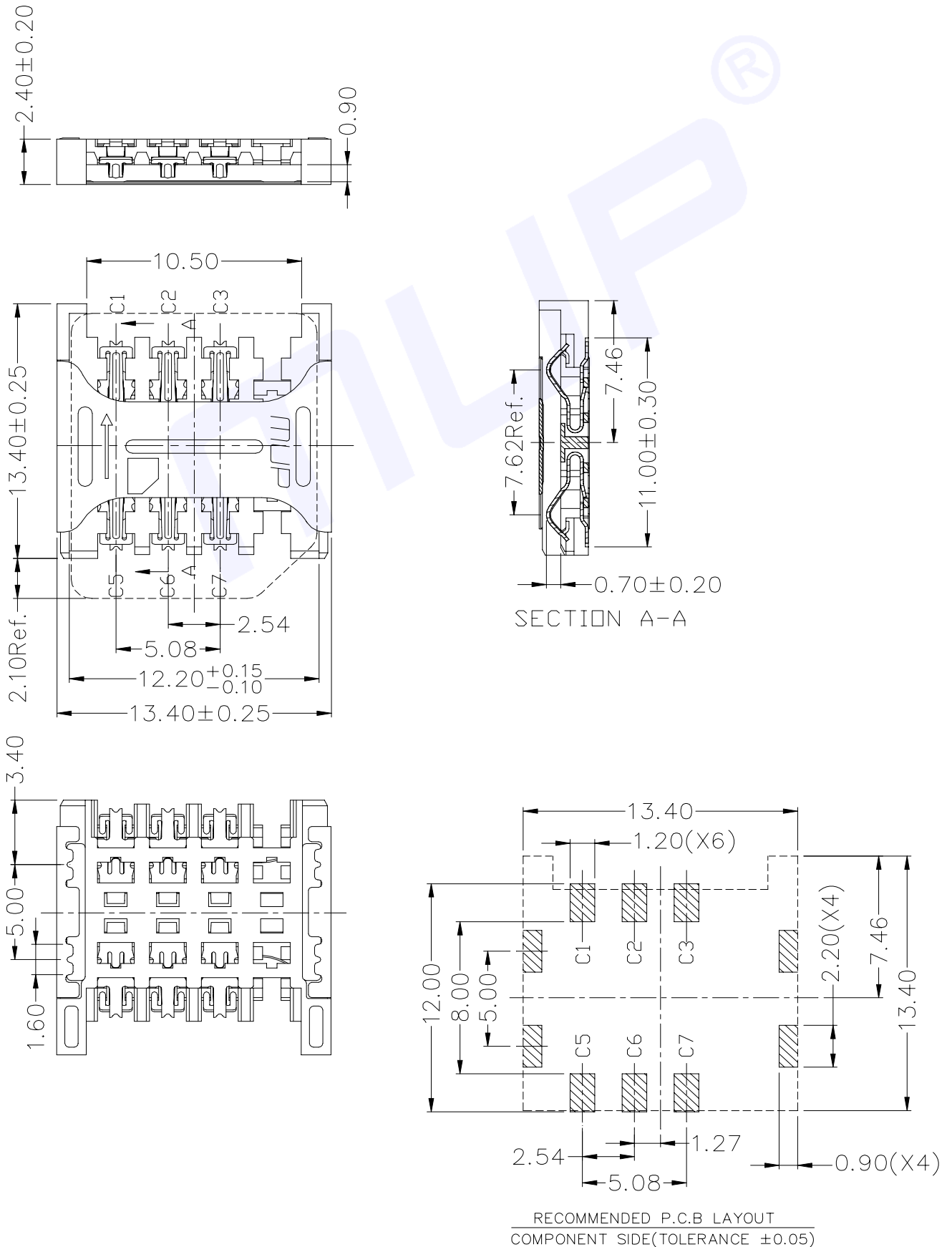
3.3 Recommended IR Reflow Condition

temperature profile for lead free soldering  
 Sn(3.0-4.0) Ag(0.5-0.9)Cu solder alloy  
 temperature measured on solderable termination



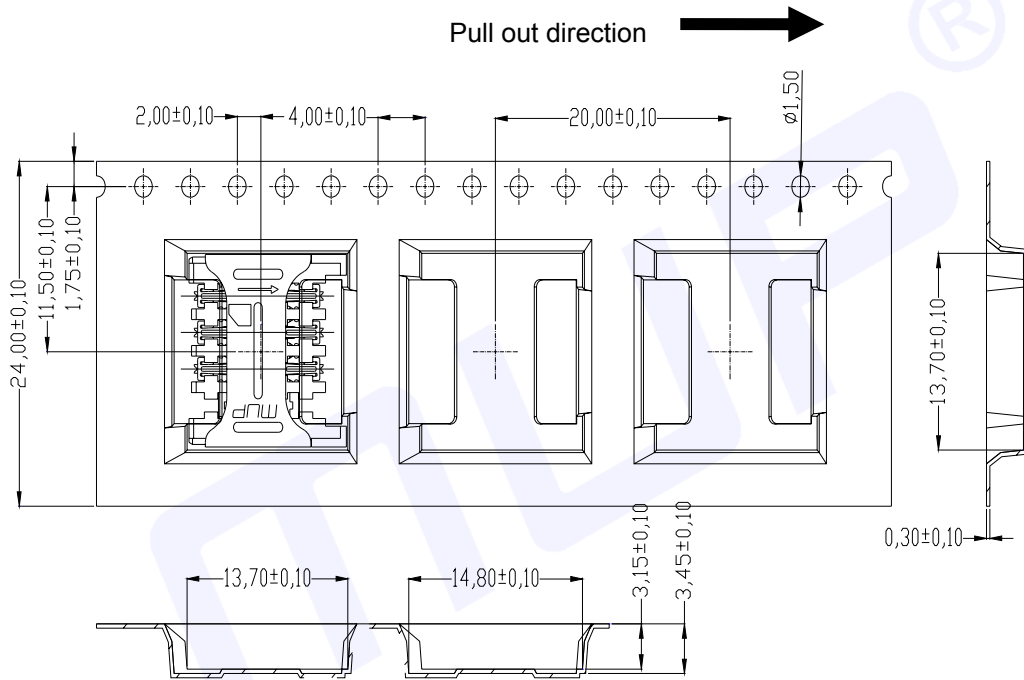
Parameter	Specification
Average temperature gradient in preheating	2.5 °C/s
Preheating temperature	150°C~200°C
Soak time	120s~180s
Time above 217°C	40s~120s
Peak temperature in reflow	235°C~250°C
Time at peak temperature	10s~50s
Temperature gradient in cooling	Max-5°C/s

4. MECHANICAL OUTLINE DRAWING

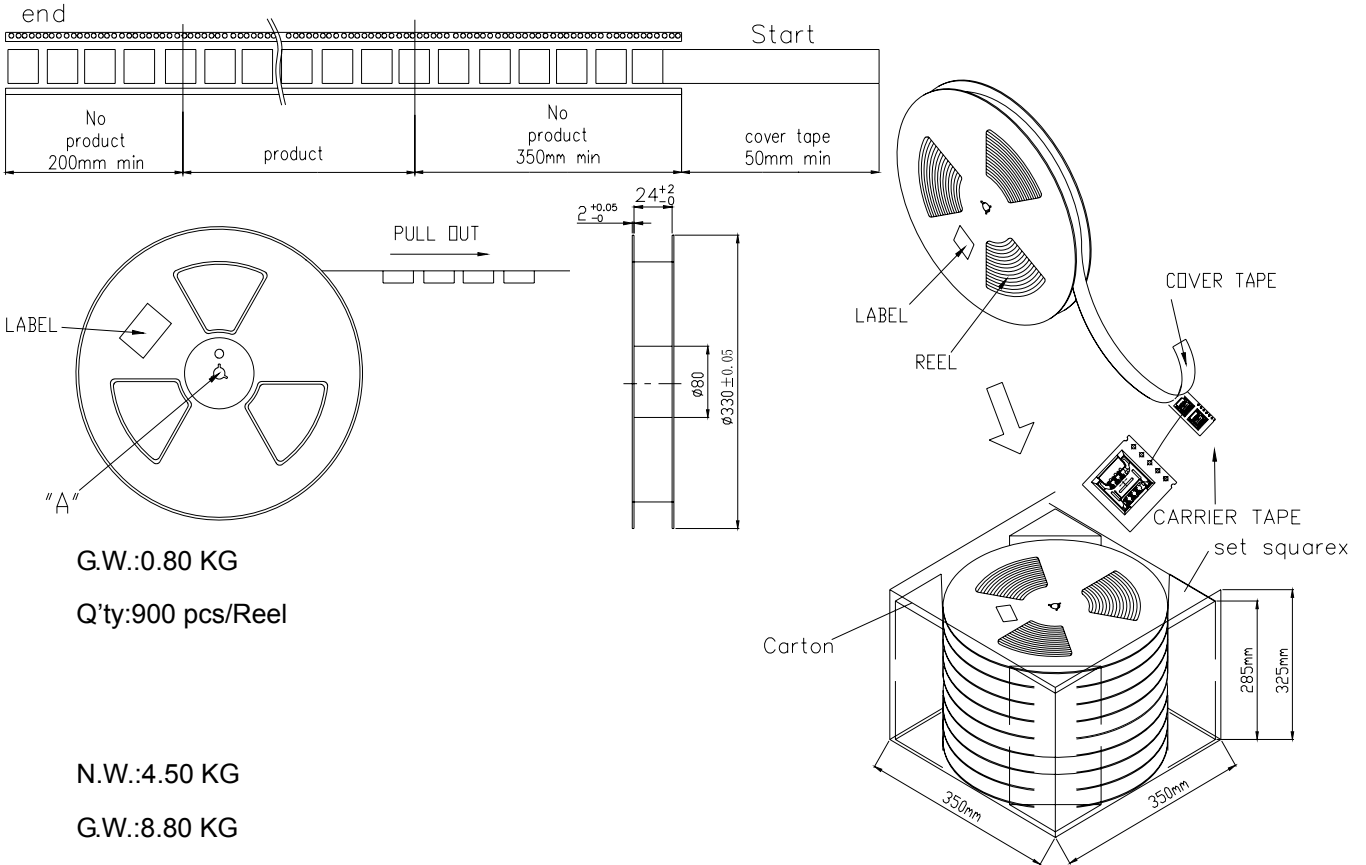


**5. PACKING INFORMATION**

**5.1 Carrier Dimensions Diagram**



**5.2 Reel Form Diagram**



G.W.:0.80 KG

Q'ty:900 pcs/Reel

N.W.:4.50 KG

G.W.:8.80 KG

Q'ty : 9000 pcs per Carton (10 Reel set in order)

Meas : 35.00L×35.00W×31.50H cm