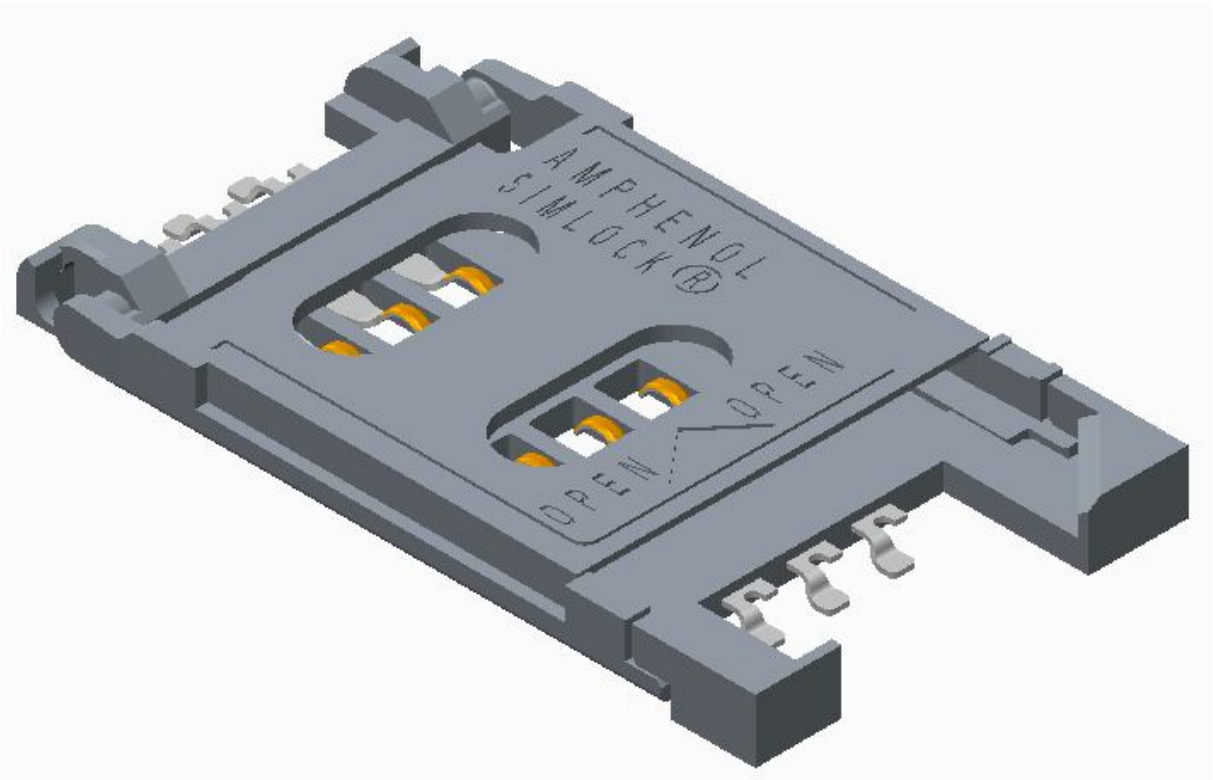
Plastic Sim Block（hinge type）

REV:01



China Amphenol (Tianjin) Electronics. co. LTD

CONTENTS

1. Description

1.1 Area Of Validity

The present specification contains details about climatic, electrical and mechanical parameters of the a. m. Wingblock.

1.2 Application

This Bridge block is suitable for mobile applications like cellular phones, PDAs or similar systems.

2.Designs

2.1 Design

The Bridge block is a connector to give contact between the SIM Card (**S**ubscriber **I**dentity **M**odule) and the PCB of the application.
The connector is suitable for automatic assembly process (pick & place) and infrared soldering (SMT).
This product meets all the requirements of RoHS.

2.2 Security Information

This connector is designed and produced in conformity with the low-voltage directive (72/23/EWG) respectively Chinese Law.
As far as Smart Card Connectors are mentioned without protection against electric shock, only Safety Extra Low Voltage (SELV) of AC $25V_{eff}$ or DC 50 V is permissible.
When mounted with protection against electric shock see table rated voltage according IEC 60664-1.

3. Technical Data

3.1 Climatic characteristics	Standard/Description	Value/ Requirements
3.1.1 Climatic category	IEC 68-1	25 / 70 / 21
3.1.2 Operating temperature		-25°C ... +85°C
3.1.3 Storage temperature		-40°C ... +85°C

3.2 Electrical characteristics	Standard/Description	Value/ Requirements
3.2.1 Operating voltage		max. 15 V_{DC}
3.2.2 Clearance and creepage distance		min. 0,3 mm
3.2.3 Operating current		min. 10 μA
3.2.4 Peak current		max. 1 A
3.2.5 Contact resistance	Apply a maximum voltage of 20 mV and a current of 100 mA. EIA 364-23	≤ 100 mΩ
3.2.6 Insulation resistance	Unmated connectors, apply 500 VDC between adjacent terminal or ground. EIA-364-21D	≥ 10^9 Ω
3.2.7 Dielectric strength	DIN EN 60512-2; test 4a	V_{BR} > 125 V_{AC}; > 1 min; No breakdown

3.3 Mechanical characteristics/ Product Drawing	Standard / Description	Value / Requirements
3.3.1 Dimensions and product drawing	length / width / height For details see customer drawing	Max 30.15mm / Max 17.35mm /2.8mm
3.3.2 Degree of protection	IEC 60529	IP 00
3.3.3 Connection method: SMD		IR solder profile peak 255-260°C/10sec min.
3.3.4 Durability	1500 mating cycles	4 to 10 mating cycles per minute including a pause between each cycle for all 1500cycles.

3.3.5 Data contact force per contact	At contact height 0.27mm over housing.	0.5N Min.

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3.3.7 Contact plating:	contact area	Au 0.5um over 1.25μm Min. Ni
	solder area	Au 0.025um over 2um Min. Ni (Lead free)
3.3.8 Plastical material		LCP colour black

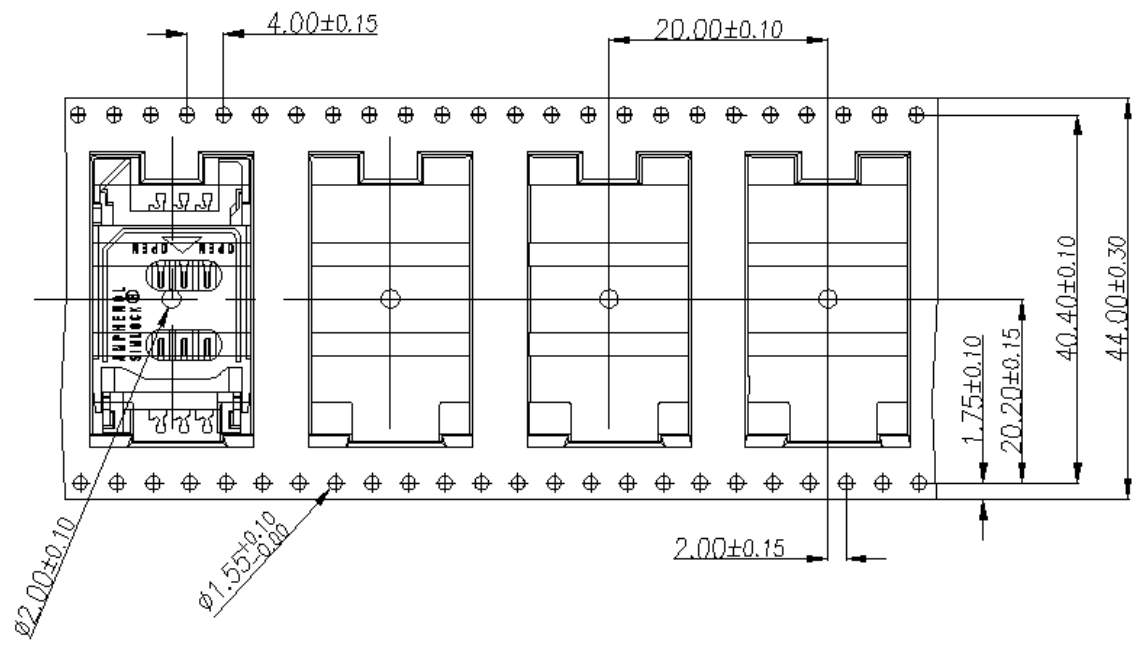
4.Qualification conditions

Qualification conditions	Standard/Description	Value/ Requirements
4.1 Solder ability	1. Temperature of molten solder: 245±5℃ 2. Dip duration: 2±0.5s	A new uniform coating of solder shall cover a minimum of 95% of the surface being immersed.
4.2 Damp Heat	IEC60068-2-30Db temperature: + 40 °C relative humidity: 95% r. H. duration: 21 days storage without card	Contact resistance
4.3 Dry Cold (Steady State)	IEC60068-2-1Ab temperature: -25 °C duration: 72 h storage with card	Contact resistance Insulation resistance Dielectric strength
4.4 Thermal Shock (Change of Temperature)	IEC60068-2-14 Test Na TA = -40 °C, 30 min TB = 85 °C, 30 min transition time < 10 sec 5 cycles storage without card , Recovery period is 2 hours under ambient atmospheric conditions.	Insulation resistance
4.5 Dry Heat (Steady State)	IEC60068-2-2Bb temperature: +70°C duration: 72h storage with 0,82mm card	Contact resistance Insulation resistance Dielectric strength
4.6 Vibration (Random)	IEC60068-2-64Fh Frequency: 10 – 100 Hz; 3 m^2/s^3 (0.0132 g^2/Hz);	The component must meet specifications.

	100 – 500 Hz; -3dB/Oct. for: 3 x 60 min (X- Y- and Z-axis).	No circuit interruption >1 µs.
4.7 Bump test	IEC60068-2-29Eb acceleration 30G pulse duration: 11 msec. pulse shape: half sine number: 100 each direction	The component must meet specifications. No circuit interruption >1 µs.
4.8 Shock (Specified pulse)	IEC60068-2-27Ea 50 G peak value, pulse shape: half sine pulse duration: 1 msec. number: 2 each direction	Reader not damaged
4.9 Salt Spray test	IEC 60068-2-11 test Ka temperature: 35±2°C relative humidity: 90-95% R H duration: 48h Salt NaCl mist 5%. After test wash parts and return to room ambient for 1-2h.	No damage Contact resistance
5.0 Reflow test	Follow the appendix 5 Repeat 3 times	Appearance: no damage Tail co-planarity 0.10mm max.

5. Packaging

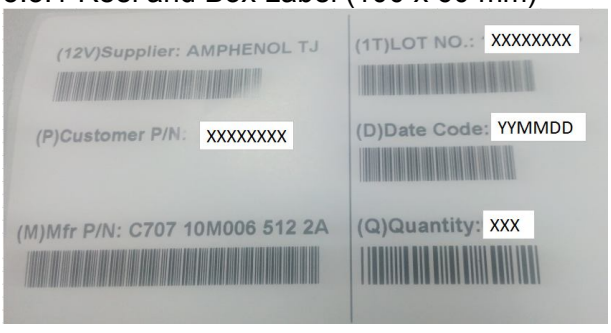
5.1 Packaging acc. EIA 481	**Description**	**Value/ Requirements**
5.1.1 Carrier tape	width	44mm
	pitch	20 mm
	sprocket hole diameter / pitch	1.55 mm / 4 mm
	material	PS, embossed blister, antisatic
5.1.2 Cover tape		antistatic
5.1.3 Reel	outer diameter, hub with recess allowed	13 inch
	material	PS, antistatic
5.1.4 Leader section	length / empty pockets	≥ 400 mm with empty pockets
5.1.5 Trailer section	length / empty pockets	≥ 200 mm with empty pockets
5.1.6 Part orientation		



5.1.7 Quantity	Part Number	Each reel
	C707 10M006 512 2A	800PCS

5.2 Order information	Value/ Requirements
5.2.1 Order information: (suffix of this number is for internal use and traceability only)	C707 10M006 512 2A
5.2.2 minimum order quantity	

5.3 Labelling	(example)
5.3.1 Reel and Box Label (100 x 60 mm)	

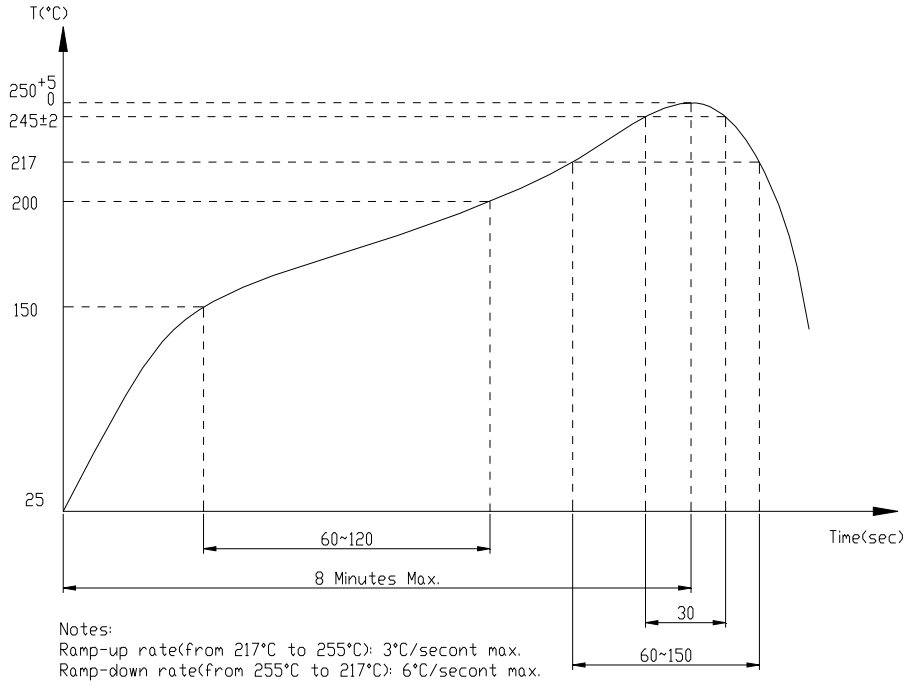


5.3.2 Receiving Label (60 x 100 mm)

6. Cross table for samples and test procedure

Test	Initial Test	Group I	Group II	Group III	Group IV
6.1 Number of test samples	(Group A)	(Group B)	(Group C)	(Group D)	(Group E)
6.2 Visual Inspection	1.	1.7	1.7	1.4.7.10.13.16	1.4.
6.3 Solder ability	5.				
6.4 Damp Heat				6	
6.5 Dry Cold (Steady State)		5			
6.6 Thermal Shock (Change of Temperature)				3	
6.7 Dry Heat (Steady State)		6			
6.8 Vibration (Random)				9	
6.9 Shock (Specified pulse)				12	
6.10 Bump test				15	
6.11 Durability			6		
6.12 Insulation resistance	2.	3.9	3.9.		
6.13 Contact Normal force			5.11		
6.14 Contact resistance	3	2.8	2.8	2.5.8.11.14.17	2.5
6.15 Dielectric strength	4.	4.10	4.10		
6.16 Salt spray					3
Sample quantity	5pcs	5pcs	5pcs	5pcs	5pcs

the appendix 5



7. Revision / Approvals

Rev.	Date	Description of Change	Name / Approval
01	2016.01.20	New edition	Editor: Qinwei Sun ENG-L: LAB:
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