

系統名稱 SYSTEM NAME:  <b>PRODUCT SPECIFICATION</b>	主題 SUBJECT: Push pull tray type,8pin dual micro sim connector P/N:WL314F7-82001-7H& WLB1587-F2B00-7H (WithTray:P/N:WL314F7-82002-7H)	文件編號 DOCUMENT NO. EBA-ASWL-011			
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	APPROVED	CHECKED	PREPARED	ISSUED BY:
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DATE	05/07'15	05/07'15	05/07'15	



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\*\*\*\*\* 修 訂 履 歷 \*\*\*\*\*  
\*\*\*\*\* HISTORY OF REVISION \*\*\*\*\*

版次 REV.	ECN NO.	修 訂 履 歷 History of Revision	修訂人 PREPARED	修訂日期 Revision Date	備 注 Remark
A	BC-14-0034488	初次發行			
B	BC-15-0003348	Update	Gavin	01/16'14	
C	BC-15-0020772	ADD WLB1587-F2B00-7H ←REV C	Will Wen	05/07'15	

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## 1. COPE

### 1.1 Content

This product specification defines the product performance and the test methods to ascertain the performance of the **MICRO SIM CARD CONNECTOR WL314F7-82001-7H&WLB1587-F2B00-7H WITH TRAY WL314F7-82002-7H**, which is designed and manufactured by **FOXCONN** international Inc.

### 1.2 Qualification

Tests are to be performed per the procedures stated in this specification. All inspections shall be conducted using the inspection plan for this product and the product drawing 347-0000-1668 /347-0000-1735

## 2. Document

The documents are to be considered as a part of this assembly.

MIL-STD-202F	Test method for electrical components
EIA364	Test method for electrical components
JIS C 0051	Test method for electrical components
MIL-G-45204C	Specification for gold plating

## 3. Requirement

### 3.1 Design & Construction

The product shall be as specified by the product drawing. **(SIM Card Connector DWG. No: 347-0000-1688 &347-0000-1735&Tray DWG No: 347-0000-1668)**

Harmful material control: please follow doc. No. "EPI12"

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### 3.2 Materials

Material used in the construction of this product shall be as specified on the applicable product drawing **347-0000-1688/347-0000-1735(SIM Card Connector) and 347-0000-1668(Tray).**

- 3.2.1 Contact: Copper Alloy
- 3.2.2 Switch pin: Copper Alloy
- 3.2.3 Housing: Thermoplastic, Black
- 3.2.4 Shell: SUS
- 3.2.5 Lever: SUS
- 3.2.6 CAM: SUS
- 3.2.7 Tray: Thermoplastic+SUS.

Harmful material control: please follow doc. No. "EPI12"

### 3.3 Marking

Ink spray of manufacturer's name, and the marking orientation follow FOXCONN' s customer drawing.

### 3.4 Test Description

Unless otherwise specified, the test and measurement shall be performed at ambient environment conditions.

### 3.5 Operating & Storage Temperature

Parameter	Requirement	Unit	Additional Info
Operating Temperature Range	-30... +85	° C	
Storage Temperature Range	-40 ~ +85	° C	
Storage Humidity Range	+15 ~ +70	%RH	

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## 4. Performance Requirement

### 4.1 Visual Examination

Items	Requirements	Test Methods
4.1.1 Visual Examination	Product shall be conforming to the requirements of applicable product drawing.	Visually, functionally inspected per applicable product drawing. EIA-364-18

### 4.2 Electrical Characteristics

Items	Requirements	Test Methods
4.2.1 Low Level Contact Resistance (Contact and Switch)	Contact resistance: 50mΩ max. after test.: 100 mΩ max. Switch resistance: 50mΩ max. after test.: 100 mΩ max.	Comply with EIA-364-23. Apply a closed-circuit current of 100 mA maximum at an open-circuit voltage of 20mV maximum on contact point and solder pad of PCB.
4.2.2 Insulation Resistance	(Initial) 1000 MΩ MIN (Final) 500 MΩ MIN	Comply with EIA-364-21. Apply 500 VDC ±10VDC on the adjacent contacts for 1 minute ± 5 seconds.
4.2.3 Dielectric Withstanding Voltage IEC 60512-4-1	No shorting, breakdown, flashover or other damage.	Comply with EIA-364-20. Apply 500 VAC for one minute at sea level on unmated connectors, less than 1 mA leakage current.
4.2.4 Temperature rise vs. Current rating IEC 60512-5-1	After tests maximum increase for environmental temperature, 30 degree C Max.	EIA 364-70 Method B The object of this procedure is to detail a standard method to assess the current carrying capacity of mated connector contacts. Measure temperature rise vs. current at 0.5A when measured at an ambient temperature of 30°C.

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### 4.3 Mechanical Characteristics

Items	Requirements	Test Methods
4.3.1 Retention force	3.0N Min.	1:Test speed 25mm/minute 2:Eject out tray without card
4.3.2 Inserting force & Withdrawing force	10N Max.	1:Test speed 25mm/minute 2: Inserting tray with card 3:Push lever make tray (with card)extraction
4.3.3 Contact Normal Force	30gf Min./per Pin	0.10mm Gap to housing surface (work position) Speed of 25±3 mm/minute
4.3.4 Durability Test (Life cycle)	No evidence of damage The electrical performances should meet the spec. specified.	1.Mating and unmating connector for 3000 cycle; 2.Applicable Micro SIM CARD (T=0.76mm) for test.
4.3.5 Soldering strength	25N Min	1:Test speed 25mm/minute 2:Testing with six direction
4.3.6 Vibration	No mechanical damage . No change of performance . Discontinuity <1us Checked by series all contacts LLCR: Max. 100 mΩ after tested	MIL-STD-202, Method 201, Mate dummy card applying each terminal shall be connected in series and then 0.1A DC shall be applied. Amplitude: 1.5 mm Frequency: 10-55-10 Hz Traversed in 1 minute For 2 hours each of 3 mutually perpendicular plane, 1 mA DC
4.3.7 Mechanical Shock	No electrical discontinuity greater than 1 μ sec. shall occur. The Contact resistance: 50mΩ max. after test.: 100 mΩ max.	MIL-STD-202, Method 202, Mate dummy card and subject to the following shock conditions: 50 G's half sine shock pulse off 11-millisecond duration; 3 shocks in each direction applied planes.

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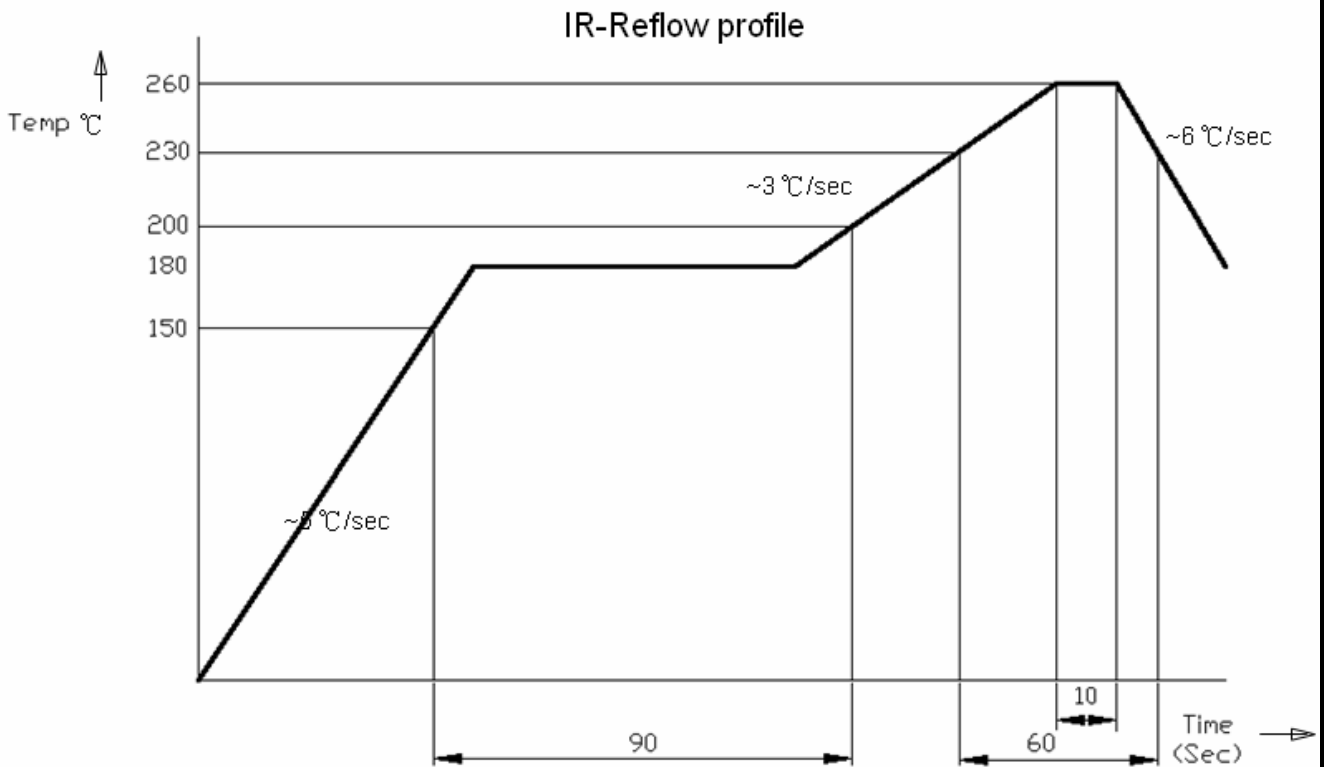
#### 4.4 Environment Characteristics

Items	Requirements	Test Methods
4.4.1 Heat Resistance	No evidence of damage The electrical performances should meet the spec. specified.	1. Operating test current: 0.2A 2. Mated dummy card shall be subjected during test. 3. Temperature: 85±2 °C 4. Duration time: 96 hours. It shall be maintained at standard atmospheric condition for 30 min after measurement shall be made.
4.4.2 Cold Resistance	No evidence of damage The electrical performances should meet the spec. specifie	1. Operating test current: 0.2A 2. Mated dummy card shall be subjected during test. 3. Temperature: -40±2 °C 4. Duration time: 96hours. It shall be maintained at standard atmospheric condition for 30 min after measurement shall be made..
4.4.3 Thermal Shock	No mechanical damage . No change to performance LLCR: Max. 100 mΩ after tested.	Subject mated connector to 5 cycles between -55 ± 3 °C / 30 minutes and +85 ± 3 °C / 30 minutes, as follow fig: It shall be maintained at standard atmospheric condition for 60 min after measurement shall be made. 
4.4.4 Temperature and Humidity	No evidence of damage The electrical performances should meet the spec. specified.	1. Temperature: 40±2 °C 2. Humidity: 95%~100%RH 3. Duration time: 96 hours.

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Items	Requirements	Test Methods
4.4.5 Salt Spray	No mechanical damage. No change to performance of connector. LLCR: Max. 100 mΩ after tested	48 hours spray, at temp. 35±2°C, R/H 95-98% Salt NaCl mist 5% PH: 6.5~7.2 After test wash parts and return to room ambient for 1-2 hours

**Figure 1. Reflow Profile**





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## 5 Test Sequence

Table II: Products qualification test sequence										
Test Description	Test Group and Sequence									
	A	B	C	D	E	F	G	H	J	K
1. Visual inspection	1,15	1,3	1	1,9	1,9	1,9	1,9	1,9	1,9	1,9
2. Low level contact resistance	2,9			2,6	2,6	2,6	2,6	2,6	2,6	2,6
3. Insulation Resistance	3,10			3,7	3,7	3,7	3,7	3,7	3,7	3,7
4. Dielectric Withstanding Voltage	4,11			4,8	4,8	4,8	4,8	4,8	4,8	4,8
5. Temperature rise vs. Current rating		2								
6. Retention Force	5,12									
7. Inserting force& withdrawing force	6,13									
8. Contact Normal Force	7,14									
9. Durability	8									
10.Soldering strength			2							
11. Vibration				5						
12. Mechanical Shock					5					
13. Heat Resistance						5				
14. Cold Resistance							5			
15. Thermal Shock								5		
16. Temperature and Humidity									5	
17. Salt Spray										5
Sample size	5	5	5	5	5	5	5	5	5	5

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