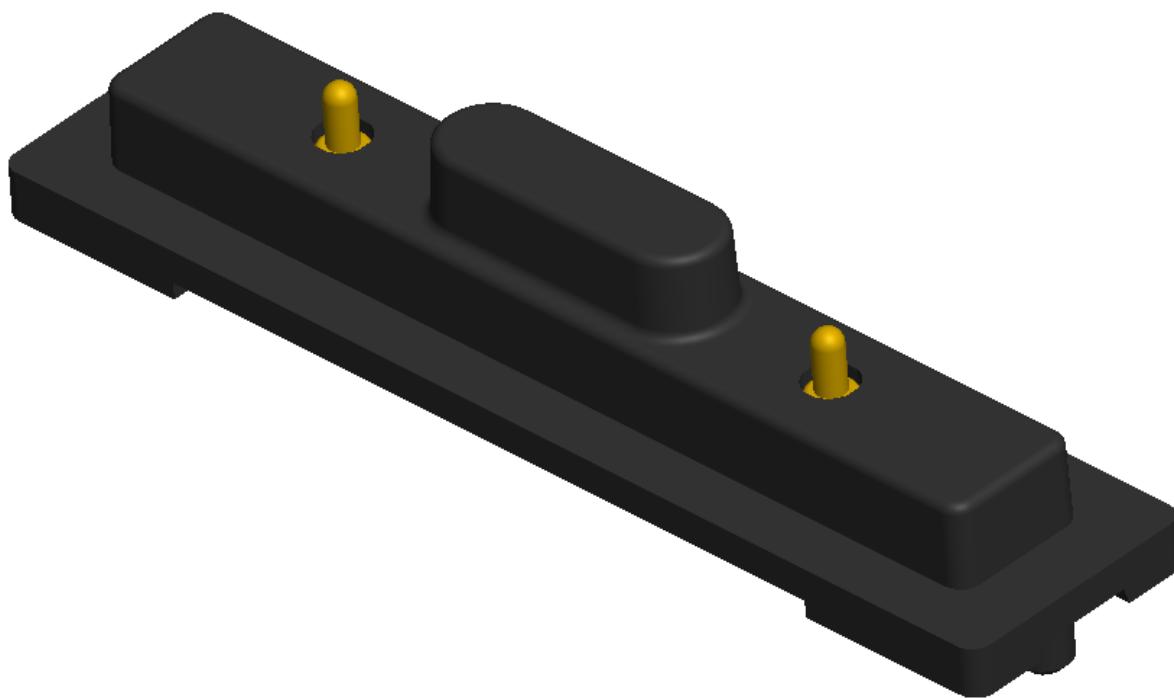




# PRODUCT SPECIFICATION



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(NUCONN)

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	BTC37 SERIES	SHEET No
B	EC No:	PDR-A170025.	PRODUCT NAME	2 PIN Pogo pin Connector	1 of 5
	DATE:	2017/04/19			
DOCUMENT NUMBER:		CREATED / REVISED BY:		CHECKED BY:	APPROVED BY:
PS-BC-0117		LINDA		JERRY.TUNG	KIMI.HSU



# PRODUCT SPECIFICATION

## 1.0 SCOPE

This specification defines the performance for the **2 PIN POGO** connector

## 2.0 PRODUCT DESCRIPTION

This Pogo-Pin consists of two contact pins, two springs, two solder pads, two fittings and a housing, For materials, plating see below Product Name: **BTC37 Series**

## 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

See product drawing (according to the newest revised edition ) and other sections of this specification for the relevant reference documents and specifications. In cases where the specification differs from the product drawings, the product drawings take precedence.

## 4.0 RATINGS

4.1	Rated Current (per contact)	2A Max.
4.2	Rated Voltage	5V DC
4.3	Operating temperature range	-40° C~ +85° C .
4.4	Dielectric Withstanding Voltage	500V AC

## 5.0 ELECTRICAL PERFORMANCE

Test Ref.	Item	Test Condition	Requirements
5.1	Contact Resistance (LLCR)	Mate connector with circuit of 20mV, 100mA Max. Measured from pin side to shaft side, 4.8mm working height <a href="#">EIA 364-23</a> ;	50 milliohms Max(Initial)
5.2	Insulation Resistance	Unmate & mate connectors: apply a voltage of 500 VDC between adjacent terminals and between terminals to ground for 1 minute. <a href="#">EIA 364-21</a>	100 Mega Ohm Min.
5.3	Dielectric Withstanding Voltage	Apply 500 VAC for 1 minute between adjacent terminals of an unmated connector. <a href="#">EIA 364-20</a>	No breakdown;

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## 6.0 MECHANICAL PERFORMANCE

Test Ref.	Item	Test Condition	Requirements
6.1	Durability	Operation Speed: 10~20cycles/minute. Durability Cycles: 10,000 Cycles <a href="#">EIA 364-09C</a>	[Contact Resistance]: 50mΩMaximum,
6.2	Normal Force	Measure normal force at contact point, @4.8mm working height <a href="#">EIA-364-04</a>	[Normal force]: 50~80g
6.3	Vibration	Subject mated connectors to 10-500 Hz traversed in 1minutes at 1.52mm amplitude for 2 Hour each of 3 mutually perpendicular planes.98.1 m/s^2 <a href="#">EIA 364-28D</a>	<1μs discontinuity
6.4	Mechanical Shock	Accelerate Velocity: 490m/ s <sup>2</sup> (50G) Waveform: 11ms Half-sine shock Velocity Change: 3.4m/s No. of Drops: 3 drops each to normal and reversed directions of X,Y and Z axes, totally 18 drops, passing 1mA current during the test. <a href="#">EIA 364-27B</a>	<1μs discontinuity
6.5	Fully compression	Compress connector to 0mm from housing by hand for 10sec	[Appearance]: no damage

## 7.0 ENVIRONMENTAL PERFORMANCE

Test Ref.	Item	Test Condition	Requirements
7.1	Humidity	Mate connectors: expose to a temperature of 40±2°C with a relative humidity of 90~95% for 96hours Note: Remove surface moisture and air dry 48 hours prior to measurements. <a href="#">EIA 364-31B</a>	[Appearance]: no damage [Contact Resistance]: 50 mΩ maximum
7.2	Low Temperature Exposure	48 hours at -40°C 1hours recovery time <a href="#">EIA 364-59</a>	[Appearance]: no damage [Contact resistance]: 50 mΩ maximum
7.3	High Temperature Exposure	48 hours at +85°C Less than 25% relative humidity 1hours recovery time <a href="#">EIA 364-17B</a>	[Appearance]: no damage [Contact resistance]: 50 mΩ maximum
7.4	Thermal Shock	Place free situation samples in chamber with 10 cycles, and one duration is -40°C/(0.5h)→ 25°C/(5minutes Max.) →85°C/(0.5h) →25°C/(5minutes Max.). <a href="#">EIA-364-32C</a>	[Appearance]: no damage. [Contact Resistance]: 50 mΩ maximum

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	BTC37 SERIES	SHEET No
B	EC No:	PDR-A170025.	PRODUCT NAME	2 PIN Pogo pin Connector	3 of 5
	DATE:	2017/04/19			
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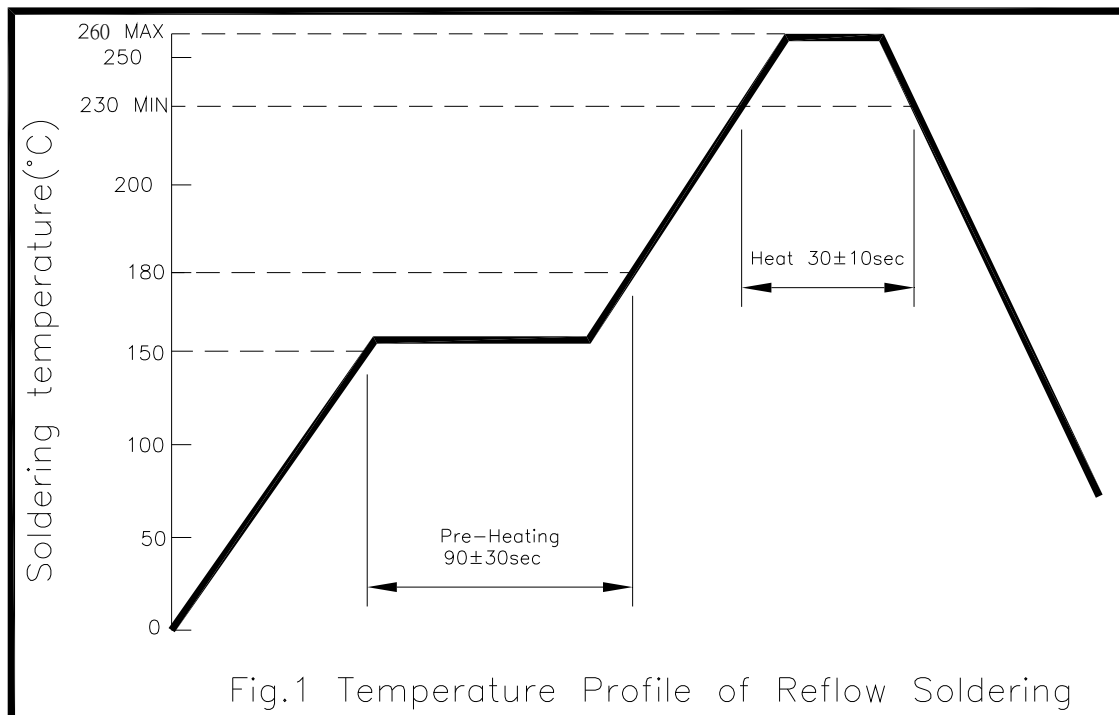
# PRODUCT SPECIFICATION

7.5	Salt Spray Test	Duration: 48 hours exposure; Atmosphere: salt spray from a 5% solution. Temperature: 35 +1/-2°C <a href="#">EIA 364-26B</a>	[Appearance]: no damage.
7.6	Solderability Test	Dip solder tails into the molten solder(held at 245±5°C for 3 ±0.5 sec. <a href="#">EIA 364-52</a>	[Solder coverage]: 95% Min.
7.7	Resistance to reflow soldering heat	Place connector applicable P.C.B. footprint and float on solder bath at 250 +5/ -0°C Reference to following Table A and Fig.1. <a href="#">EIA 364-56</a>	[Appearance]: no damage .

## 8.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.

## 9.0 RECOMMENDED REFLOW PROFILE



REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	BTC37 SERIES	SHEET No
B	EC No:	PDR-A170025.	PRODUCT NAME	2 PIN Pogo pin Connector	4 of 5
	DATE:	2017/04/19			
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PS-BC-0117			LINDA	JERRY.TUNG	KIMI.HSU



# PRODUCT SPECIFICATION




## 10.0 TEST GROUP

Test Group												
Test Items	Test Sequence											
	A	B	C	D	E	F	G	H	I	J	K	L
Contact Resistance(LLCR)	1,5	1,5,7	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,3	1,3
Insulation Resistance	2,4	6										
Dielectric Withstanding Voltage	3											
Durability		3										
Normal Force		2,4										
Vibration			3									
Mechanical Shock				3								
Fully compression					3							
Humidity						3						
Low Temperature Exposure							3					
High Temperature Exposure								3				
Thermal Shock									3			
Salt Spray Test										3		
Solderability Test											2	
Resistance to reflow soldering heat												2
Sample(Pcs)	3	3	3	3	3	3	3	3	3	3	3	3

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	BTC37 SERIES	SHEET No
B	EC No:	PDR-A170025.	PRODUCT NAME	2 PIN Pogo pin Connector	5 of 5
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# AdRON 文件制訂、修訂、廢止申請單

RD-PS-A-001-253

文件編號	PS-BC-0117	文件名稱	BTC37 Series SPEC.		
申請部門	工程部	申請人	LINDA	日期	5/2'17
制訂單位	工程部	制訂人	LINDA	日期	5/2'17
<input type="checkbox"/> 制訂 <input checked="" type="checkbox"/> 修訂 <input type="checkbox"/> 廢止原因說明	ECN NO. RD-T170025 耐久改10000次				
相關單位審查	<div style="text-align: right;">             4/24/2017         </div> <div style="text-align: center;">  </div> <div style="text-align: right;">             4/24         </div>				
核准	