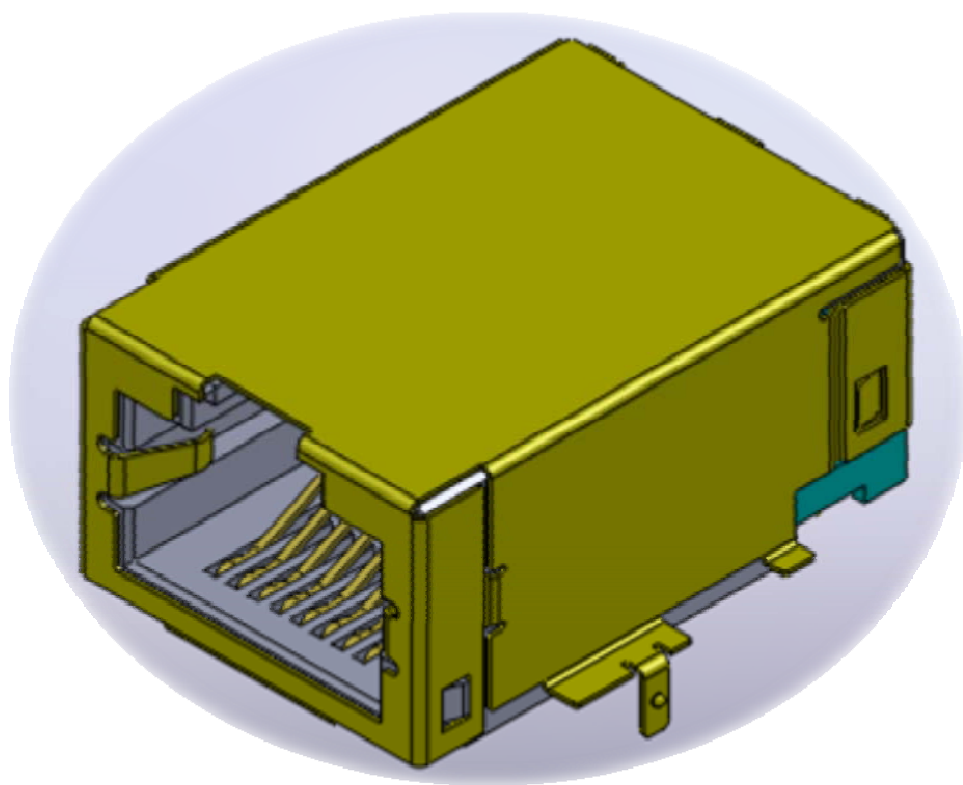




PRODUCT SPECIFICATION



育鼎精密工業股份有限公司
ACRON PRECISION INDUSTRIAL CO., LTD

桃園縣八德市廣德里新興路 55 號

No.55, SinSing Road., Bade City, Taoyuan County 334, Taiwan(R.O.C)

TEL : 886-3-3629889 FAX : 886-3-3664917

☐ 東莞睦永電子五金廠
(AMMI)

☐ 東莞育鼎電子五金廠
(ACRON)

☒ 東莞愷興電子科技電子有限公司
(NUCONN)

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	GDI62 SERIES	SHEET No
B	EC No:	RC-T170016	PRODUCT NAME	RJ45 1x1 TAB UP 10/100 BASE-T	1 of 9
DATE:		2017-01-12			
DOCUMENT NUMBER:		CREATED / REVISED BY:		CHECKED BY:	APPROVED BY:
PS-GD-0029		ANDELEE.YANG		JERRY.TUNG	KIMI.HSU



PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers the performance requirements for Low profile single port RJ45 10/100 Base-T connector series.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

Low profile single port RJ45 10/100 BASE-T series. Nuconn part No:GDI62 Series

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See appropriate sales drawings for details on dimensions ,materials , plating and markings.

2.3 SAFETY AGENCY APPROVALS

See appropriate sales drawings

2.4 PRODUCT WEIGHT

The product weight is 5.72g

2.5 PRODUCING PLANT FACTORY AND ADDRESS

Producing plant factory: Nuconn Industry CORP.

DongGuan Nuconn Industry CORP. Address:

Nr.32,RongFu Rd.,3rd Industrial District,ShangSha Village,,ChangeAn Town,DonGuan City,GuangDong

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

Please refer to the Sales Drawings , and other sections of this Specification for specific references to applicable documents and specifications. In cases where the Product Specification differs from the Sales Drawings, the Sales Drawing will take precedence

3.1 TURNS RATIO:

(P1-P3) : (J1-J2) : 1CT:1CT \pm 3%

(P4-P6) : (J3-J6) : 1CT:1CT \pm 3%

3.2 OPEN CIRCUIT INDUCTANCE:

(P1-P3) : 350uH MIN . @0.1V,100KHz, 8mA DC Bias

(P4-P6) : 350uH MIN . @0.1V,100KHz, 8mA DC Bias

3.3 LEAKAGE INDUCTANCE:

P1-P3(Short J1-J2) : 0.5 uH MAX, @1MHz

P4-P6(Short J3-J6) : 0.5 uH MAX, @1MHz

3.4 INTER-WINDING CAPACITANCE :

(P1,P2,P3) TO (J1,J2) :35pF MAX, @1MHz

(P4,P5,P6) TO (J3,J6) :35pF MAX, @1MHz

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	GDI62 SERIES	SHEET No
B	EC No:	RC-T170016	PRODUCT NAME	RJ45 1x1 TAB UP 10/100 BASE-T	2 of 9
	DATE:	2017-01-12			
DOCUMENT NUMBER:		CREATED / REVISED BY:		CHECKED BY:	APPROVED BY:
PS-GD-0029		ANDELEE.YANG		JERRY.TUNG	KIMI.HSU



PRODUCT SPECIFICATION

3.5 DC RESISTANCE:

(J1-J2) and (J3-J6) : 1.2 ohms MAX

3.6 RETURN LOSS (LOAD 100 OHM)

1~30MHz:-18dB MIN

30~ 60MHz : -18+20LOG(f/30)dB MIN

60~ 80MHz : -12dB MIN

3.7. INSERTION LOSS

1~100MHz :-1.2dB Max

3.8. CROSS TALK:

1-100 MHz : -35dB TYP

3.9. COMMON TO COMMON MODE REJECTION:

1~100MHz : -30dB MIN

3.10. HI-POT:

UTP SIDE TO CHIP SIDE : 1500 Vrms or 2250VDC 60SEC@60Hz

3.11 TEMPERATURE

Operating Temperature Range: 0°C to +70°C

Storage Temperature Range: - 40°C to + 85°C

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	GDI62 SERIES	SHEET No
B	EC No:	RC-T170016	PRODUCT NAME	RJ45 1x1 TAB UP 10/100 BASE-T	3 of 9
DATE:		2017-01-12			
DOCUMENT NUMBER:			CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-GD-0029			ANDELEE.YANG	JERRY.TUNG	KIMI.HSU



PRODUCT SPECIFICATION

4.0 PERFORMANCE

Item	Test Items	Requirement	Procedures
1	Examination of Product	Meets requirements of product drawing. No physical damage.	Visual, dimensional and functional per applicable quality inspection plan.

Electrical Requirements

2	LOW Contact Resistance	30 mΩ max initial ΔR = 30 mΩ max final	Mate subject connector with compatible connector. EIA-364-23B
3	Insulation Resistance	1000 MΩ min initial 50 MΩ min final	Apply 100±10% Volts DC between adjacent contacts of mated connectors for one minute. EIA-364-21
4	Dielectric Withstanding Voltage	No discharge, flashover or breakdown. Current leakage: 1 mA max	For mated specimens, 2250VDC or 1500Vrms 60 sec, between connected RJ interface contacts and all PCB tails connected together with shield. 1 milliamp ere cutoff current, 500 Volts per second maximum ramp. EIA-364-20

Mechanical Requirements

5	Mating and Un-mating Forces	Insertion Force: 22N max Unlatched Withdrawal Force: 22N max Latched Withdrawal Force: 89N min	Measure force necessary to mate and un-mate connectors using the free floating fixtures at rate of 25mm/min. EIA-364-05B
6	Terminal Strength	Appearance meet requirement	Gravitation 500g , Winding 90 angle 2-3sec
7	KOJIRI Strength	Appearance meet requirement	Left: 100N, push 15sec Right: 100N, push 15sec Up: 100N, push 15sec Down : 100N, push 15se
8	Physical Shock	No electrical discontinuity greater than 1μsecond. Shall meet visual requirements, and show no physical damages.	Subject mated connectors to 50 G's (peak value) half-sine shock pulses of 11 milliseconds duration. Three shocks in each direction shall be applied along the three mutually perpendicular axes of the test specimen (18 shocks). The electrical load condition shall be 100mA maximum for all contacts.

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	GDI62 SERIES	SHEET No
B	EC No:	RC-T170016	PRODUCT NAME	RJ45 1x1 TAB UP 10/100 BASE-T	4 of 9
	DATE:	2017-01-12			
DOCUMENT NUMBER:		CREATED / REVISED BY:		CHECKED BY:	APPROVED BY:
PS-GD-0029		ANDELEE.YANG		JERRY.TUNG	KIMI.HSU



PRODUCT SPECIFICATION

			EIA-364-27B
9	Durability	200 cycles with no function damage for RJ-45. Low Level Contact Resistance: $\Delta R = 30m\Omega$ max final	The sample should be mounted in the tester and fully mated and unmated 300 times per hour at the rate of 25mm/min. EIA-364-09C
10	Random Vibration	No electrical discontinuity greater than 1 μ second. Shall meet visual requirements, and show no physical damages.	The electrical load condition shall be 100mA maximum for all contacts. Subject to a simple harmonic motion having amplitude of 0.76mm (1.52mm maximum total excursion) in frequency which being varied uniformly between the approximate limits of 10 and 55 Hz. The entire frequency range, from 10 to 55 Hz and return to 10 Hz, shall be traversed in approximately 1 minute. This motion shall be applied for 2 hours in each of three mutually perpendicular directions. EIA-364-28D

Environment Requirements

11	Thermal Shock (Simulate Non-Operating State)	ΔR : 30m Ω max (change from initial) & Appearance: no damage	Subject mated connectors to 100 cycles between -40°C and 85°C, 30 minutes duration at both temperature extremes. EIA-364-32C
12	Humidity-Temperature Cycling	ΔR : 30m Ω max (change from initial) & Appearance: no damage	Test Temp :40 \pm 2°C Relative Humidity:90~95%RH Test time:500Hrs EIA-364-31B,
13	Temperature Life (Heat Aging)	ΔR : 30m Ω max (change from initial) & Appearance: no damage	Subject mated connectors to temperature life at 85°C for 500 hours. EIA-364-17B, Method A
14	Temperature Life (Cold Aging)	ΔR : 30m Ω max (change from initial) & Appearance: no damage	Subject mated connectors to temperature life at -40°C for 500 hours EIA-364-59,
15	Salt Spray	ΔR : 30m Ω max (change from initial) & Appearance: no damage	48hours Atmosphere: salt spray from a 5% solution. Temperature: 35 +1/-2°C EIA 364-26

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	GDI62 SERIES	SHEET No
B	EC No:	RC-T170016	PRODUCT NAME	RJ45 1x1 TAB UP 10/100 BASE-T	5 of 9
	DATE:	2017-01-12			
DOCUMENT NUMBER:		CREATED / REVISED BY:		CHECKED BY:	APPROVED BY:
PS-GD-0029		ANDELEE.YANG		JERRY.TUNG	KIMI.HSU



PRODUCT SPECIFICATION

16	Ammonia	Appearance: no damage	Hydrogen Ion Exponent Index (PH)=10 Test Temperature:15~35℃ Test Time:72±4hrs
17	Solder ability	Wetting must occur over at least 95% of the solder immersion surface	Solder:SN/3.0Ag/0.5Cu,Flux:ROSIN 25%,IPA75%.High Temp Storage:150℃ 1 hour, PCT: 105℃ 100% 1.22*10 ⁵ Pa 4 hours. Solder 240℃±2℃; Immersion depth 2mm; Immersion time 3S
18	Soldering Heat	1: Electrical and mechanical performance must be satisfactory in specifications 2:There must no conspicuous changes in appearance(For example warping , swelling, cracking, indication)	MATERIALS Solder : Sn/99Ag/0.3/Cu0.7(Weight&) If no doubts arise in judgment, it is ok to use another SOLDER TEST CONDITION 1 : TEST A: Flow Soldering (Partly Heating) 260±3℃ 10S≤ 2 : TEST B: Hand Soldering 400℃ (Soldering iron tiop) 3S≤

5.0 PACKAGING

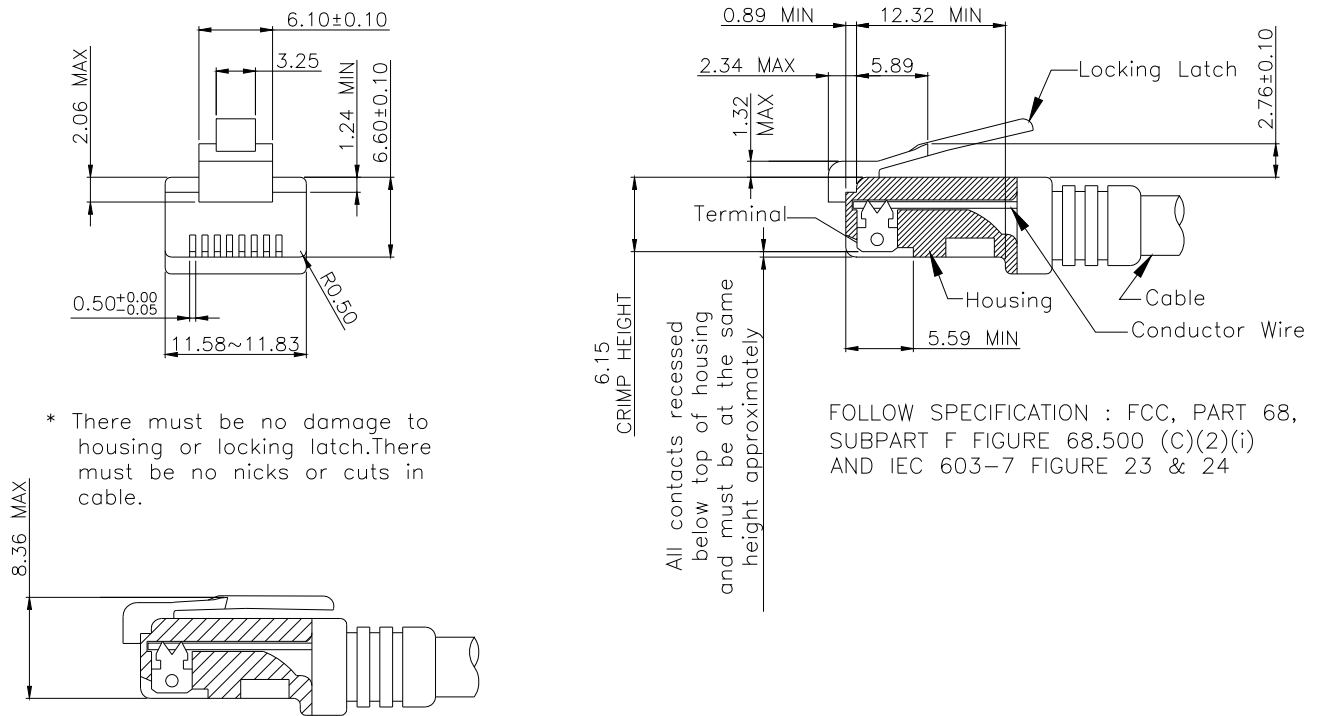
Parts shall be packaged to protect against damage during handling, transit and storage.
See packaging appropriate drawings

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	GDI62 SERIES	SHEET No
B	EC No:	RC-T170016	PRODUCT NAME	RJ45 1x1 TAB UP 10/100 BASE-T	6 of 9
	DATE:	2017-01-12			
DOCUMENT NUMBER:		CREATED / REVISED BY:		CHECKED BY:	APPROVED BY:
PS-GD-0029		ANDELEE.YANG		JERRY.TUNG	KIMI.HSU



PRODUCT SPECIFICATION

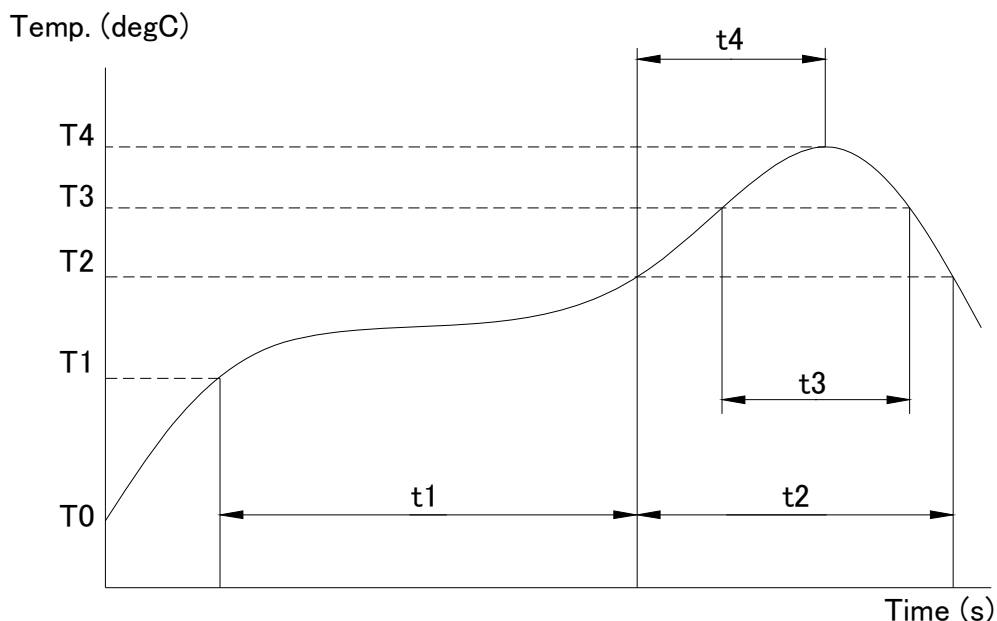
6.0 RECOMMENDED RJ PLUG SPECIFICATION



FOLLOW SPECIFICATION : FCC, PART 68, SUBPART F
FIGURE 68.500 (C)(2)(ii)

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	GDI62 SERIES	SHEET No
B	EC No:	RC-T170016	PRODUCT NAME	RJ45 1x1 TAB UP 10/100 BASE-T	7 of 9
	DATE:	2017-01-12			
DOCUMENT NUMBER:		CREATED / REVISED BY:		CHECKED BY:	APPROVED BY:
PS-GD-0029		ANDELEE.YANG		JERRY.TUNG	KIMI.HSU

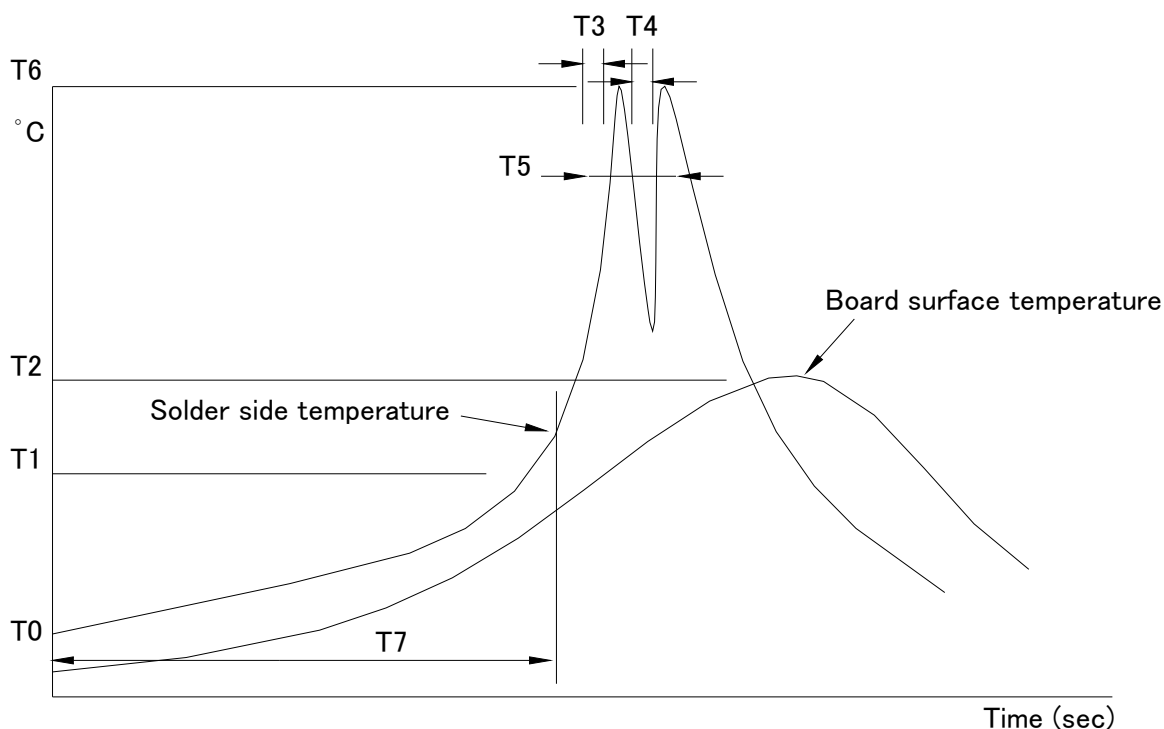
7.0 RECOMMENDED REFLOW SOLDERING PROFILE



Start temperature		T0	35degC(Reference)
Preheating	Temperature	T1-T2	150-195degC
	Time	t1	160sec.
Heating time		t2/T2	115sec./195degC
		t3/T3	60sec./225degC
Peak temperature		T4	260degC
Time to peak temperature		T4	40-90sec.
Rate of rising temperature		T0-T1	1-5degC/sec.
		T2-T4	1-3degC/sec.
Peak temperature(Soldering points)			230degC
Number of tests			3times

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	GDI62 SERIES	SHEET No
B	EC No:	RC-T170016	PRODUCT NAME	RJ45 1x1 TAB UP 10/100 BASE-T	8 of 9
	DATE:	2017-01-12			
DOCUMENT NUMBER:		CREATED / REVISED BY:		CHECKED BY:	APPROVED BY:
PS-GD-0029		ANDELEE.YANG		JERRY.TUNG	KIMI.HSU

8.0 RECOMMENDED WAVE SOLDERING PROFILE



	T0	25~35 °C (Room temperature)	
Start temperature	T1	90~120 °C	
Pre-heat time	T7	MAX 180s	
Soldering time(solder side)	T6	MAX 260+3 °C	
Soldering temperature(board surface)	T2	MAX 150 °C	cradle use
Soldering temperature(board surface)	T2	MAX 170 °C	cradle no use
Soldering time	T3	1st wave 1±0.5s	MAX temperature time
	T4	2nd wave 3±1s	MAX temperature time
Max temperature arrival time	T7	180~210(MAX) s	
225 °C over time	T5	3~15 s	
solder time		two time	

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	GDI62 SERIES	SHEET No
B	EC No:	RC-T170016	PRODUCT NAME	RJ45 1x1 TAB UP 10/100 BASE-T	9 of 9
	DATE:	2017-01-12			
DOCUMENT NUMBER:		CREATED / REVISED BY:		CHECKED BY:	APPROVED BY:
PS-GD-0029		ANDELEE.YANG		JERRY.TUNG	KIMI.HSU

AdRoN 文件制訂、修訂、廢止申請單

RD-PS-A-001->>6

文件編號	PS-GD-0029	文件名稱	GbZ62 Series		
申請部門	SD	申請人	Tiana	日期	1.12.2017
制訂單位	研發部	制訂人	Anshelce	日期	1.12.2017
<div>□ 制訂 ■ 修訂 □ 廢止原因說明</div>	<p>Ec No. RC-T170016 (Rev.B)</p> <p>Salt Spray for 48 hours.</p>				
相關單位審查	<p>Tiam 1/2</p> <p>Anshelce 1/12 2017</p> <p>Mu 1/12</p>				
核准	<p>Simi 1/12 17</p>				