|                              | 样品质            | 成认书       |         |  |  |  |
|------------------------------|----------------|-----------|---------|--|--|--|
|                              | APPROVAL SHEET |           |         |  |  |  |
| <b>FO:</b> 香港全:              | 纬科技有限          | 公司        |         |  |  |  |
| SPECIFIC                     | ATION          | FOR AI    | PPROVA  |  |  |  |
| DESCRIPTION: 0.5mm           | n BTB MALE     |           |         |  |  |  |
| CUSTOMER PROD.NO             | BT101-560GR0   |           |         |  |  |  |
| iQiang PROD.NO:              | 2(             | 008-10-24 |         |  |  |  |
| customer approvel Signature: |                |           |         |  |  |  |
|                              |                |           | FI AINF |  |  |  |
| APPROVAD<br>KEN              | CHECKED        | R&D<br>庄伟 | ELAINE  |  |  |  |

#### ITEM CHECKLIST

Part Number: BT101-560GR0

Description: 0.5mm PITCH 2.0H BTB 60PIN MALE V/A SMT TYPE NO POST

#### This "Package" is a checklist covering items required。 產品承認須提供所列的文件資料。

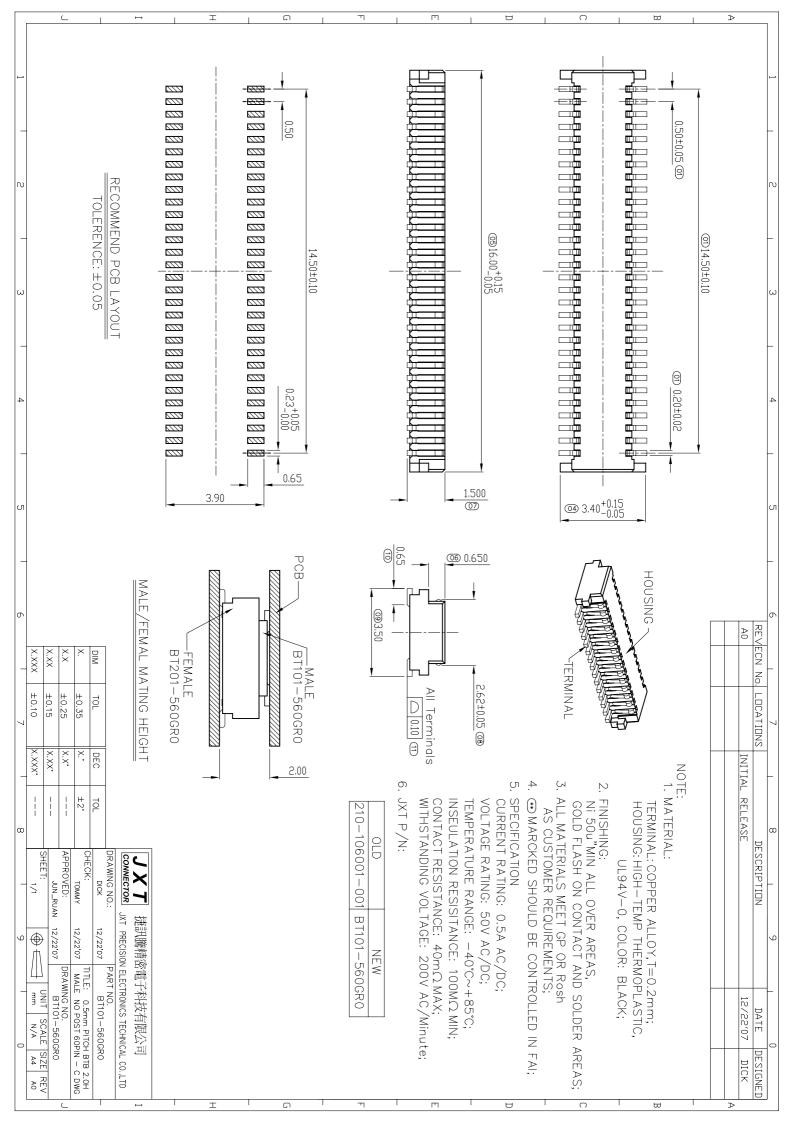
PHASE 1: DESIGN REVIEW ITEM DESCRIPTION Check/Remark 檔案格式 項次 說明 検査/註記 客戶圖 1 PDE ν Customer drawing 包裝圖 2 PDF ν Packing drawing 產品規範 3 PDF ν Product Specification 原材料材質性能/規格試驗/驗證報告 4 PDF ν Material spec. Certification: Resin & Metal 原材料RoHS/MSDS or 第三公託單位證明文件: 塑膠和金屬 5 PDF ν Material RoHS certification report. 成品UL證明(特別指定再提供) 6 PDF Finished Product UL Certification (where applicable) χ PHASE 2: FA REVIEW FAI報告,必須包含客戶產品圖上所有標註的尺寸檢驗(最少每一模穴各一個檢驗樣品) 7 Inspection data of ALL dimensions & requirements indicated in Customer Drawing (At least one hsg cavity one sample which PDF χ must be sa 電鍍檢驗圖面/規範and量測點圖面 8 PDF ν Plating inspection dwg/specifica 電鏡膜厚量測報告(每一電鏡層最少5點) 9 PDF  $\boldsymbol{\nu}$ Plating Measurement Data Report( 5 measuring data min. per plating layer ) 製程品質管制圖 10 PDF χ Process and Quality Flow Chart 品質檢驗計畫(需記載檢驗點,檢驗設備,批號以及接受/判退...等; RoHS有毒物質需列人定期檢驗項目) 11 PDF χ Quality Inspection Plan ( specifying inspection points, equipment used, lot number, accept/reject...etc) 製程能力分析(最少量測30個數値) 12 PDF χ Process Capability Study (minimum 30 pcs measurement data) 檢驗治貝圖面 13 PDF χ Gauge Design 包裝測試報告 14 Packaging Test Report PDF χ

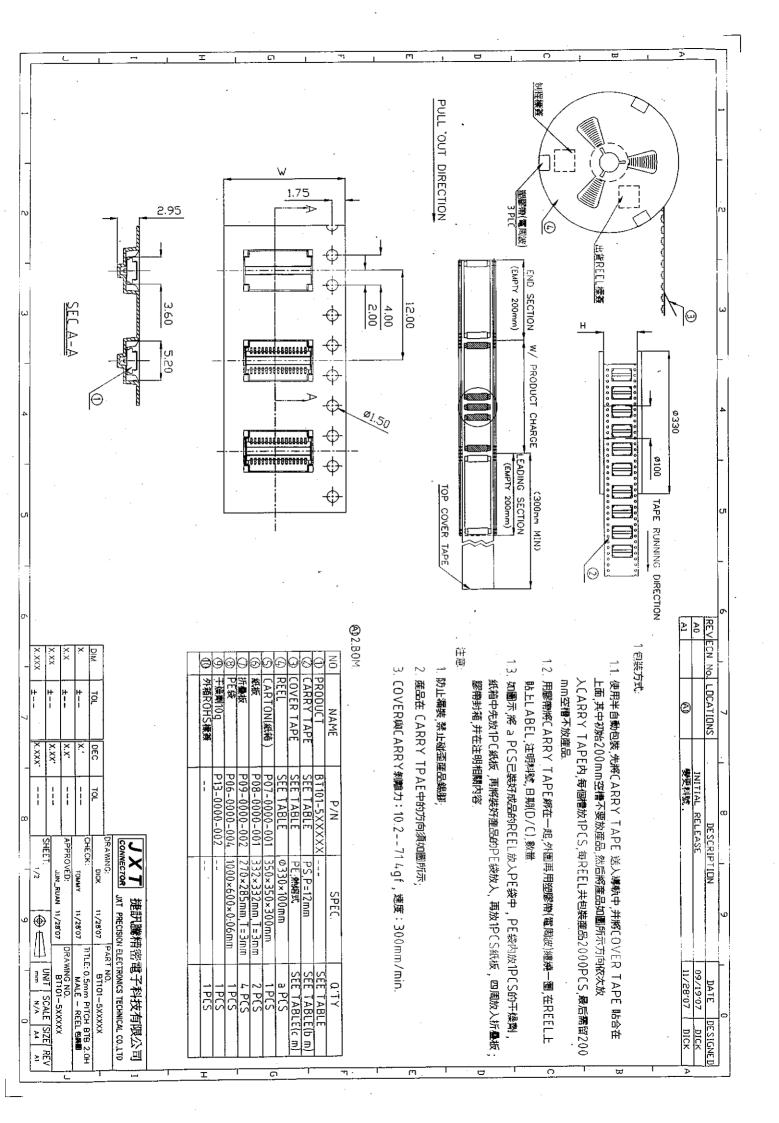
PS: 1. New Part No. should not be released until all the documents are in hands of Engineering Dept.

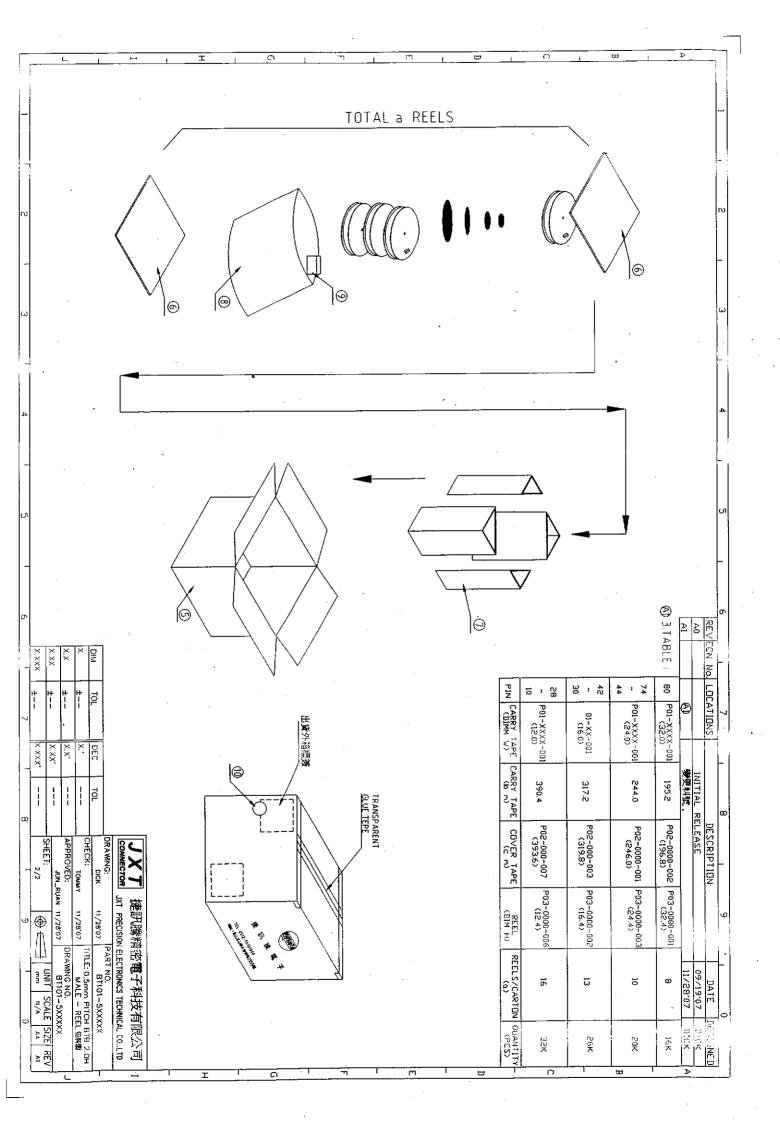
1. 新產品承認資料未送達工程部前不得發行

2. New Part No. should not be keyed into the system until all phase 2 documents are in hands of Eng. Dep. And approval.

2. 第二階段文件未送達工程部,且未完成產品承認前,系統不得運行產品料號.







Product Specification Document No.

**Rev.** 

## 0.5mm Pitch BTB 2.0H SMT Type Connector

#### 1. SCOPE

#### **1.1. CONTENTS**

This specification covers the performance, tests and quality requirements for the **0.5mm Pitch BTB 2.0H SMT Type Connector**.

#### **1.2. QUALIFICATION**

When tests are performed on the subject product line, the procedures specified in JXT BTX01-5XXXXX series specifications shall be used. All inspections shall be performed using the applicable inspection plan and product drawings.

#### 2. APPLICABLE DOCUMENT

The following JXT documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. In the event of conflict between the requirements of this specification and the product drawings, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the requirements of this specification and the requirements, this specification shall take precedence.

#### 3. REQUIREMENTS

#### 3.1. DESIGN AND CONSTRUCTION

Product shall be of the design, construction and physical dimensions specified on the applicable product drawings.

#### 3.2. MATERIALS

- A. Housing : Thermoplastic, UL94V-0
- B. Contact : Copper Alloy, Gold plating on contact and solder areas over Nickel underplating overall.

#### 3.3. RATINGS

- A. Voltage: 50 VAC(rms)/DC.
- B. Current: 0.5 A Max
- C. Temperature: 40 to 85

| PE      | DATE       | APVD  | DATE       |
|---------|------------|-------|------------|
| Dick-Li | 12-13-2007 | ТОММҮ | 12-13-2007 |

### 3.4. PERFORMANCE REQUEIREMENT AND TEST DESCRIPTION

The product shall be designed to meet the electrical, mechanical and environmental performance requirements specified in Figure 1. All tests shall be performed at ambient environmental conditions TEST REQUIREMENTS AND PROCEDURES SUMMARY.

|   | TEST ITEM                          | REQUIREMENT   | PROCEDURE   |
|---|------------------------------------|---|---|
| 1 | Examination of<br>Product          | Meets requirements of product drawing. No physical damage.                        | Visual inspection.  |
|   |                                    | ELECTRICAL REQUIR   | EMENT   |
| 2 | Contact Resistance                 | [ 20 ] m Max(Initial)<br>R=[ 20 ] m Max(Final)                                    | Subject mated contacts assembled in housing to 100mV Max open circuit at 50mA Max. Refer to Fig.3   |
| 3 | Dielectric<br>withstanding Voltage | No creeping discharge or<br>flashover shall occur.<br>Current leakage: 0.5 mA MAX | [ 50 ]VAC/DC for 1minute<br>Test between adjacent circuits of<br>unmated connector.   |
| 4 | Insulation Resistance              | [ 100 ] M Ohm Min.(Initial)<br>[ 100 ] M Ohm Min.(Final)                          | Impressed voltage 500 VDC.<br>Test between adjacent circuits of<br>unmated connector.   |
|   |                                    | MECHANICAL REQUIR   | EMENT   |
| 5 | Mating Force                       | <u>90 g</u> f/Pin <b>Max</b> .  | Operation Speed : [ 25 ]±3 mm/min.<br>Measure the force required to male<br>mate fenale connector.  |
| 6 | Unmating Force                     | <u>10 g</u> f/Pin <b>Min</b>  | Operation Speed : [ 25 ]±3 mm/min.<br>Measure the force required to male<br>unmate fenale connector.  |
| 7 | Durability                         | Visual inspection.  | Operation Speed : [ 25 ] cycle/min.<br>Durability Cycles : 50m Cycles   |
| 8 | Vibration                          | No electrical discontinuity<br>greater than 0.1 sec shall occur.<br>See Note.     | Subject mated connectors to 10-55-10<br>Hz traversed in 1minutes at 1.52mm<br>amplitude 2 Hours each of 3 mutually<br>perpendicular planes. 10 m Ohm<br>MAX(change from initial).   |
| 9 | Mechanical Shock                   | No electrical discontinuity<br>greater than 0.1 sec shall occur.<br>See Note.     | Accelerate Velocity : 490m/s <sup>2</sup> (50G)<br>Waveform : Half-sine shock plus<br>Duration : 11msec<br>No. of Drops : 3 drops each to normal<br>and reversed directions of X,Y and Z<br>axes, totally 18 drops, passing DC 10<br>mA max(change from initial). current<br>during the test. |

#### 3.5. TEST REQUIREMENTS AND PROCEDURES SUMMARY

Figure 1 (Cont.)

|    | MECHANICAL REQUIREMENT  |  |   |  |  |  |  |  |
|----|---|--|---|--|--|--|--|--|
|    | TEST ITEM   | PROCEDURE  |   |  |  |  |  |  |
| 10 | 0       Solder ability         The inspected area of each lead must have 95% solder coverage minimum. |  | Steam Aging Preconditioning:<br>Intended for tin and tin-alloy<br>leadfinishes for 93+3/-5 、8hrs.<br>Solder pot temperature: 235±5 ,3sec  |  |  |  |  |  |
|    | ENVIRONMENTAL REQUIREMENTS  |  |   |  |  |  |  |  |
| 12 | Resistance to <b>Reflow</b><br>Soldering Heat   | No physical damage shall<br>occur. <b>( Lead-Free )</b>                        | Pre Heat : 150~180 , 90±30sec.<br>Heat : 230 Min., 30±10sec.<br>Peak Temp. : <u>260+0/-5</u> , 10 sec MIN.<br>Duration : 3 cycles   |  |  |  |  |  |
| 13 | Thermal Shock   | Visual inspection.   | Mated Connector<br>-55+/-3 (30 min.), +85+/-2 (30 min.)<br>Perform this a cycle, repeat 5 cycles<br>EIA-364-32C, Condition  |  |  |  |  |  |
| 14 | Humidity-Temperature<br>Cycle   | Remove surface moisture and air dry for 1hour prior to measurements.           | Mated Connector<br>25~65 ,90~95% RH, 96 hours.  |  |  |  |  |  |
| 15 | Temperature Life<br>(Heat Aging)  | Visual inspection.   | Mated Connector<br>85 , 250 hours, EIA-364-17B.   |  |  |  |  |  |
| 16 | Salt Spray  | No detrimental corrosion<br>allowed in contact area and<br>base metal exposed. | Subject mated connectors to 35+/-2<br>and 5+/-1% salt condition for <b>8hours</b> .<br>After test, rinse the sample with water<br>and recondition the room temperature<br>for 1 hour. |  |  |  |  |  |

Figure 1 (End)

NOTE : Shall meet visual requirements, show no physical damage, and meet requirement of additional tests as specified in the test sequence in Figures 2

| 3.6. PRODUCT QUALIFICATION AND REQUALIFICATION TEST |      |          |      |      |        |      |      |      |      |      |
|---|------|----------|------|------|--------|------|------|------|------|------|
|   |      | <u> </u> | -    |      | Test C | -    | 1    |      | i    |      |
| Test or Examination                                 | Α    | В        | С    | D    | Ε      | F    | G    | Н    |      | J    |
|   |      |          | 1    | Test | Sequ   | ence | (a)  |      | 1    |      |
| Examination of Product                              | 1, 7 | 1, 9     | 1, 6 | 1, 5 | 1, 5   | 1, 5 | 1, 5 | 1, 3 | 1, 3 | 1, 3 |
| Contact Resistance                                  |      | 2, 8     | 2, 5 | 2, 4 | 2, 4   | 2, 4 | 2, 4 |      |      |      |
| Dielectric withstanding Voltage                     | 3, 6 |          |      |      |        |      |      |      |      |      |
| Insulation Resistance                               | 2, 5 |          |      |      |        |      |      |      |      |      |
| Temperature Rising                                  |      |          |      |      |        |      |      | 2    |      |      |
| Mating Force  |      | 3, 7     |      |      |        |      |      |      |      |      |
| Unmating Force                                      |      | 4, 6     |      |      |        |      |      |      |      |      |
| Durability  |      | 5        |      |      |        |      |      |      |      |      |
| Vibration   |      |          | 3    |      |        |      |      |      |      |      |
| Mechanical Shock                                    |      |          | 4    |      |        |      |      |      |      |      |
| Solderability                                       |      |          |      |      |        |      |      |      |      | 2    |
| Resistance to Soldering Heat                        |      |          |      |      |        |      |      |      | 2    |      |
| Thermal Shock                                       |      |          |      | 3    |        |      |      |      |      |      |
| Humidity Temperature Cycling                        | 4    |          |      |      | 3      |      |      |      |      |      |
| Temperature Life                                    |      |          |      |      |        | 3    |      |      |      |      |
| Salt Spray  |      |          |      |      |        |      | 3    |      |      |      |

#### 3.6. PRODUCT QUALIFICATION AND REQUALIFICATION TEST

Figure 2

NOTE : ( a ) Numbers indicate sequence in which tests are performed.

(b) Discontinuities shall not take place in this test group, during tests.

Figure 3. Contact Resistance & Resistance to flow solder heat

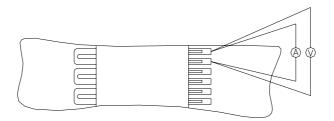


Fig.3-1 Termination Resistance Measuring Points.

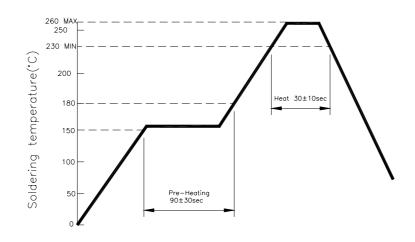


Fig.4-1 Temperature Profile of Reflow Soldering

# 昆山捷訊騰精密電子科技有限公司

耐久測試報告

试件编号:071024001

试件名称:0.5mm BTB 2.0H SMT 60PIN

測試方式:



一、導通測試

| 序號  | 規格        | 測試數據       | 判定   |
|-----|-----------|------------|------|
| 1   | <50 m ohm | 18 m ohm   | pass |
| 2   | <50 m ohm | 19 m ohm   | pass |
| . 3 | <50 m ohm | 22 m ohm   | pass |
| 4   | <50 m ohm | 17 m ohm   | pass |
| 5   | <50 m ohm | 19.5 m ohm | pass |
| . 6 | <50 m ohm | 22 m ohm   | pass |
| 7   | <50 m ohm | 18 m ohm   | pass |
| 8   | <50 m ohm | 21.4 m ohm | pass |

一、耐久測試

| Cycle      | 往程最大力量(Kgf) | 往程最大力量之位移(mm) | 返程最大力量(Kgf) | 返程最大力量之位移<br>(mm) |
|------------|-------------|---------------|-------------|-------------------|
| 1          | 4.403       | 1.068         | -3.017      | 0.796             |
| 2          | 4.405       | 1.068         | -2.995      | 0.804             |
| 3          | 4.352       | 1.076         | -3.010      | 0.792             |
| 4          | 4.372       | 1.068         | -3.035      | 0.796             |
| 5          | 4.409       | 1.068         | -3.030      | 0.796             |
| 6          | 4.394       | 1.068         | -2.986      | 0.804             |
| 7          | 4.376       | 1.068         | -2.984      | 0.804             |
| 8          | 4.353       | 1.068         | -3.010      | 0.796             |
| 9          | 4.362       | 1.068         | -3.020      | 0.804             |
| 10         | 4.366       | 1.068         | -2.985      | 0.808             |
| <b>1</b> 1 | 4.346       | 1.064         | -2.992      | 0.808             |
| 12         | 4.333       | 1.064         | -2.987      | 0.808             |
| 13         | 4.321       | 1.064         | -2.993      | 0.808             |
| 14         | 4.326       | 1.064         | -2.998      | 0.808             |

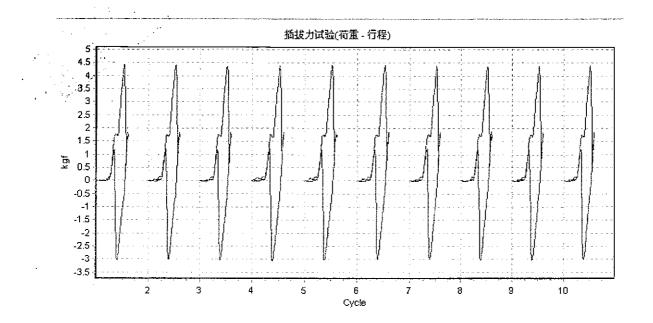
| 15 | 4.333 | 1.064 | -2.986 | 0.808   |
|----|-------|-------|--------|---------|
| 16 | 4.335 | 1.052 | -3.045 | 0.792   |
| 17 | 4.100 | 1.036 | -2.997 | 0.800   |
| 18 | 4.305 | 1.056 | -2.979 | 0.812   |
| 19 | 4.346 | 1.064 | -2.974 | 0.812   |
| 20 | 4.330 | 1.064 | -2.982 | 0.812   |
| 20 | 4.349 | 1.064 | -2.977 | 0.812   |
| 22 | 4.350 | 1.056 | -2.982 | 0.804   |
| 23 | 4.325 | 1.056 | -2.981 | 0.804   |
| 23 | 4.323 | 1.064 | -2.977 | 0.812   |
| 25 | 4.333 | 1.076 | -2.978 | 0.804   |
| 25 | 4.333 | 1.064 | -2.978 | 0.804   |
| 20 | 4.378 |       |        | 0.804   |
|    |       | 1.000 | -2.977 | 0.804   |
| 28 | 4.377 | 1.068 | -2.968 |         |
| 29 | 4.339 | 1:060 | -2.973 | 0.812   |
| 30 | 4.375 | 1:068 | -2.971 | 0.804   |
| 31 | 4.390 | 1.068 | -2.971 | 0.804   |
| 32 | 4.336 | 1.068 | -2.964 | . 0.804 |
| 33 | 4.370 | 1.068 | -3.051 | 0.796   |
| 34 | 4.403 | 1.068 | -2.975 | 0.804   |
| 35 | 4.364 | 1.068 | -2.974 | 0.804   |
| 36 | 4.372 | 1.068 | -2.973 | 0.804   |
| 37 | 4.365 | 1.056 | -2.964 | 0.804   |
| 38 | 4.374 | 1.060 | -2.971 | 0.804   |
| 39 | 4.394 | 1.060 | -2.971 | 0.796   |
| 40 | 4.362 | 1.068 | -2.961 | 0.800   |
| 41 | 4.375 | 1.072 | -2.976 | 0.792   |
| 42 | 4.347 | 1.076 | -2.991 | 0.792   |
| 43 | 4.353 | 1.064 | -2.962 | 0.804   |
| 44 | 4.374 | 1.076 | -2.960 | 0.816   |
| 45 | 4.352 | 1.068 | -2.961 | 0.808   |
| 46 | 4 336 | 1 072 | -3 037 | 0.792   |
| 47 | 4.409 | 1.072 | -2.952 | 0.812   |
| 48 | 4.359 | 1.064 | -2.951 | 0.804   |
| 49 | 4.309 | 1.072 | -2.958 | 0.812   |
| 50 | 4.330 | 1.064 | -2.959 | 0.804   |
| 51 | 4.343 | 1.064 | -2.955 | 0.804   |
| 52 | 4.336 | 1.064 | -2.980 | 0.804   |
| 53 | 4.315 | 1.064 | -2.955 | 0.812   |
| 54 | 4.298 | 1.064 | -2.956 | 0.812   |
| 55 | 4.343 | 1.072 | -2.956 | 0.804   |
| 56 | 4.320 | 1.064 | -2.962 | 0.804   |
| 57 | 4.337 | 1.064 | -2.951 | 0.804   |
| 58 | 4.331 | 1.072 | -2.956 | 0.804   |
| 59 | 4.329 | 1.072 | -2.950 | 0.800   |
| 60 | 4.320 | 1.072 | -2.951 | 0.800   |
| 61 | 4.351 | 1.072 | -2.946 | 0.812   |
| 62 | 4.348 | 1.076 | -2.952 | 0.812   |
| 63 | 4.316 | 1.076 | -2.953 | 0.800   |
| 64 | 4.327 | 1.064 | -2.951 | 0.812   |
| 65 | 4.277 | 1.064 | -2.953 | 0.812   |

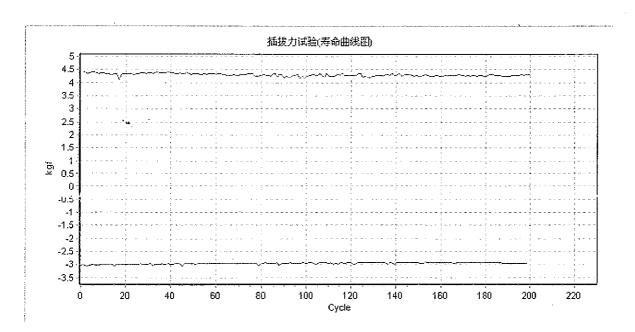
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| 66   | 4.293 | 1.064 | -2.950 | 0.812 |
|------|-------|-------|--------|-------|
| 67   | 4.271 | 1.064 | -2.954 | 0.812 |
| 68   | 4.299 | 1.064 | -2.957 | 0.812 |
| 69   | 4.290 | 1.064 | -2.954 | 0.820 |
| 70   | 4.281 | 1.064 | -2.954 | 0.812 |
| 71   | 4.299 | 1.064 | -2.954 | 0.812 |
| 72   | 4.326 | 1.064 | -2.952 | 0.808 |
| 73   | 4.305 | 1.068 | -2.946 | 0,816 |
| 74   | 4.335 | 1.068 | -2.942 | 0.812 |
| 75   | 4.330 | 1.068 | -2.946 | 0.812 |
| 76   | 4.332 | 1.064 | -2.950 | 0.808 |
| 77   | 4.251 | 1.052 | -2.956 | 0.808 |
| 78   | 4.251 | 1.048 | -2.939 | 0.812 |
| 79   | 4.248 | 1.060 | -2.968 | 0.804 |
| 80   | 4.282 | 1.056 | -3.010 | 0.796 |
| 81   | 4.316 | 1.064 | -2.950 | 0.804 |
| 82   | 4.272 | 1.056 | -2.956 | 0.804 |
| 83   | 4.264 | 1.056 | -2.936 | 0.804 |
| 1 84 | 4.241 | 1.048 | -2.945 | 0.804 |
| 85   | 4.319 | 1.056 | -2.946 | 0.804 |
| 86   | 4.343 | 1.064 | -2.939 | 0.804 |
| 87   | 4.206 | 1.056 | -2.945 | 0.804 |
| 88   | 4.313 | 1.056 | -2.932 | 0.804 |
| 89   | 4.303 | 1.056 | -3.024 | 0.796 |
| 90   | 4.196 | 1.056 | -2.939 | 0.804 |
| 91   | 4.233 | 1.056 | -2.937 | 0.804 |
| 92   | 4.223 | 1.056 | -2.940 | 0.804 |
| 93   | 4.199 | 1.060 | -2.956 | 0.804 |
| 94   | 4.283 | 1.060 | -2.934 | 0.804 |
| 95   | 4.268 | 1.060 | -2.940 | 0.804 |
| 96   | 4.322 | 1.060 | -2.937 | 0.812 |
| 97   | 4 145 | 1 048 | -2,948 | 0.804 |
| 98   | 4.235 | 1.056 | -2.952 | 0.812 |
| 99   | 4.168 | 1.056 | -2.933 | 0.812 |
| 100  | 4.217 | 1.056 | -2.928 | 0.812 |
| 101  | 4.270 | 1.056 | -2.937 | 0.812 |
| 102  | 4.267 | 1.060 | -2.932 | 0.812 |
| 103  | 4.301 | 1.068 | -2.935 | 0.804 |
| 104  | 4.265 | 1.068 | -2.924 | 0.804 |
| 105  | 4.270 | 1.068 | -2.971 | 0.796 |
| 106  | 4.334 | 1.068 | -2.939 | 0.808 |
| 107  | 4.262 | 1.072 | -2.929 | 0.812 |
| 108  | 4.223 | 1.064 | -2.930 | 0.804 |
| 109  | 4.329 | 1.064 | -2.927 | 0.816 |
| 110  | 4,236 | 1.060 | -2.927 | 0.808 |
| 111  | 4.251 | 1.060 | -2.938 | 0.812 |
| 112  | 4.261 | 1.056 | -2.928 | 0.812 |
| 113  | 4.278 | 1.056 | -2.994 | 0.804 |
| 114  | 4.318 | 1.056 | -2.927 | 0.812 |
| 115  | 4.278 | 1.056 | -2.987 | 0.804 |
| 116  | 4.357 | 1.056 | -2.927 | 0.812 |

| 117        | 4.276                                 | 1.056 | -2.927                                | 0.812 |
|------------|---------------------------------------|-------|---------------------------------------|-------|
|            | · · · · · · · · · · · · · · · · · · · | 1.056 | -2.927                                | 0.812 |
| 118<br>119 | 4.280                                 | 1.056 | -2.942                                | 0.820 |
| 120        |                                       | 1.056 | -2.932                                | 0.812 |
|            | 4.270                                 | 1.056 | -2.934                                | 0.812 |
| 121        | 4.264                                 | 1.056 | -2.934                                | 0.804 |
| 122        | 4.274                                 |       | -2.975                                | 0.804 |
| 123        | 4.339                                 | 1.064 | · · · · · · · · · · · · · · · · · · · |       |
| 124        | 4.336                                 | 1.064 | -2.920                                | 0.812 |
| 125        | 4.185                                 | 1.056 | -2.925                                | 0.812 |
| 126        | 4.261                                 | 1.056 | -2.922                                | 0.812 |
| 127        | 4.226                                 | 1.056 | -2.919                                | 0.812 |
| 128        | 4.195                                 | 1.056 | -2.920                                | 0.820 |
| 129        | 4.235                                 | 1.056 | -2.923                                | 0.820 |
| 130        | 4.262                                 | 1.056 | -2.924                                | 0.812 |
| 131        | 4.284                                 | 1.056 | -2.922                                | 0.812 |
| 132        | 4.281                                 | 1.056 | -2.924                                | 0.812 |
| 133        | 4.272                                 | 1.056 | -2.921                                | 0.812 |
| 134        | 4.254                                 | 1.056 | -2.931                                | 0.812 |
| 135        | 4.307                                 | 1.056 | -2.928                                | 0.812 |
| 136        | 4.306                                 | 1.056 | -2.935                                | 0.804 |
| 137        | 4.287                                 | 1.056 | -2.991                                | 0.792 |
| 138        | 4.328                                 | 1.068 | -2.923                                | 0.812 |
| 139        | 4.271                                 | 1.068 | -2.923                                | 0.812 |
| 140        | 4.270                                 | 1.068 | -2.973                                | 0.804 |
| 141        | 4.334                                 | 1.068 | -2.920                                | 0.812 |
| 142        | 4.245                                 | 1.068 | -2.925                                | 0.812 |
| 143        | 4.289                                 | 1.064 | -2.919                                | 0.812 |
| 144        | 4.321                                 | 1.064 | -2.924                                | 0.812 |
| 145        | 4.298                                 | 1.056 | -2.920                                | 0.812 |
| 146        | 4.296                                 | 1.064 | -2.922                                | 0.812 |
| 147        | 4.270                                 | 1.064 | -2.918                                | 0.812 |
| 148        | 4 259                                 | 1.064 | -2.918                                | 0.820 |
| 149        | 4.287                                 | 1.064 | -2.917                                | 0.820 |
| 150        | 4.261                                 | 1.056 | -2.915                                | 0.804 |
| 151        | 4.247                                 | 1.056 | -2.912                                | 0.812 |
| 152        | 4.274                                 | 1.064 | -2.956                                | 0.804 |
| 153        | 4.296                                 | 1.072 | -2.944                                | 0.804 |
| 154        | 4.281                                 | 1.064 | -2.903                                | 0.812 |
| 155        | 4.258                                 | 1.064 | -2.917                                | 0.812 |
| 156        | 4.257                                 | 1.068 | -2.920                                | 0.812 |
| 157        | 4.258                                 | 1.068 | -2.921                                | 0.812 |
| 158        | 4.272                                 | 1.068 | -2.920                                | 0.812 |
| 159        | 4.233                                 | 1.068 | -2.915                                | 0.820 |
| 160        | 4.231                                 | 1.068 | -2.918                                | 0.820 |
| 161        | 4.259                                 | 1.068 | -2.913                                | 0.820 |
| 162        | 4.271                                 | 1.068 | -2.918                                | 0.820 |
| 163        | 4.253                                 | 1.056 | -2.916                                | 0.820 |
| 164        | 4.279                                 | 1.068 | -2.923                                | 0.812 |
| 165        | 4.281                                 | 1.056 | -2.921                                | 0.812 |
| 166        | 4.288                                 | 1.068 | -2.913                                | 0.816 |
| 167        | 4.289                                 | 1.068 | -2.947                                | 0.808 |

| 160       4.220       1.064       -2.909       0.812         170       4.274       1.064       -2.910       0.820         171       4.241       1.064       -2.917       0.820         172       4.276       1.064       -2.917       0.820         173       4.288       1.064       -2.917       0.820         174       4.271       1.064       -2.913       0.820         175       4.273       1.064       -2.913       0.820         176       4.262       1.064       -2.913       0.820         177       4.263       1.064       -2.924       0.820         177       4.263       1.064       -2.920       0.832         177       4.263       1.064       -2.920       0.832         176       4.274       1.108       -2.920       0.832         180       4.262       1.108       -2.910       0.832         181       4.266       1.100       -2.908       0.840         182       4.296       1.100       -2.907       0.840         184       4.281       1.108       -2.916       0.840         185       4.265       1.112 </th <th>168</th> <th>4.323</th> <th>1.064</th> <th>-2.910</th> <th>0.812</th> | 168  | 4.323                                  | 1.064                                  | -2.910  | 0.812                                 |
|--|------|--|--|---------|---------------------------------------|
| 1714.2411.064 $-2.913$ 0.8201724.2761.064 $-2.917$ 0.8201734.2581.064 $-2.913$ 0.8201744.2711.064 $-2.913$ 0.8201754.2731.064 $-2.913$ 0.8201764.2621.064 $-2.913$ 0.8201774.2631.064 $-2.924$ 0.8201784.2741.108 $-2.920$ 0.8321794.2581.108 $-2.920$ 0.8321804.2621.108 $-2.920$ 0.8321804.2621.108 $-2.916$ 0.8241814.2871.108 $-2.916$ 0.8321824.2961.100 $-2.907$ 0.8401834.2961.100 $-2.907$ 0.8401844.2811.108 $-2.916$ 0.8401854.2651.112 $-2.915$ 0.8401864.2721.112 $-2.912$ 0.8431874.2431.112 $-2.925$ 0.8401884.2651.112 $-2.928$ 0.8401894.2441.112 $-2.938$ 0.8401914.2531.112 $-2.943$ 0.8401924.2841.112 $-2.942$ 0.8431944.2771.112 $-2.942$ 0.8431954.2841.112 $-2.942$ 0.8401964.2991.112 $-2.942$ 0.8401974.2851.1  | 169  | 4.290                                  | 1.064                                  | -2.909  | 0.812                                 |
| 172 $4.276$ $1.064$ $-2.917$ $0.820$ $173$ $4.258$ $1.064$ $-2.910$ $0.820$ $174$ $4.271$ $1.064$ $-2.913$ $0.820$ $175$ $4.273$ $1.064$ $-2.913$ $0.820$ $176$ $4.262$ $1.064$ $-2.917$ $0.824$ $176$ $4.262$ $1.064$ $-2.913$ $0.820$ $177$ $4.263$ $1.064$ $-2.924$ $0.820$ $177$ $4.263$ $1.064$ $-2.920$ $0.832$ $179$ $4.258$ $1.108$ $-2.920$ $0.832$ $180$ $4.262$ $1.108$ $-2.910$ $0.832$ $180$ $4.262$ $1.108$ $-2.910$ $0.832$ $182$ $4.296$ $1.100$ $-2.908$ $0.332$ $183$ $4.296$ $1.100$ $-2.907$ $0.840$ $184$ $4.281$ $1.108$ $-2.915$ $0.840$ $185$ $4.265$ $1.112$ $-2.915$ $0.840$ $186$ $4.272$ $1.112$ $-2.912$ $0.840$ $188$ $4.250$ $1.112$ $-2.928$ $0.840$ $194$ $4.272$ $1.112$ $-2.943$ $0.840$ $194$ $4.253$ $1.112$ $-2.943$ $0.840$ $194$ $4.250$ $1.112$ $-2.942$ $0.840$ $194$ $4.250$ $1.112$ $-2.943$ $0.840$ $194$ $4.253$ $1.112$ $-2.942$ $0.840$ $194$ $4.264$ $1.112$ $-2.942$ $0.840$ $194$   | 170  | 4.274                                  | 1.064                                  | -2.910  | 0.820                                 |
| 1734.2581.064 $-2.910$ 0.8201744.2711.064 $-2.913$ 0.8201754.2731.064 $-2.917$ 0.8241764.2621.064 $-2.913$ 0.8201774.2631.064 $-2.924$ 0.8201784.2741.108 $-2.920$ 0.8321794.2581.108 $-2.920$ 0.8321804.2621.108 $-2.916$ 0.8241814.2871.108 $-2.910$ 0.8321824.2961.100 $-2.908$ 0.8321834.2961.100 $-2.907$ 0.8401844.2811.108 $-2.916$ 0.8401854.2651.112 $-2.915$ 0.8401864.2721.112 $-2.915$ 0.8481874.2431.112 $-2.925$ 0.8481884.2501.112 $-2.925$ 0.8401894.2441.112 $-2.933$ 0.8401904.2501.120 $-2.943$ 0.8401914.2531.112 $-2.949$ 0.8401924.2851.112 $-2.945$ 0.8481944.2771.112 $-2.939$ 0.8401954.2841.112 $-2.942$ 0.8321964.2991.112 $-2.942$ 0.8321954.2841.112 $-2.942$ 0.8441974.2851.112 $-2.942$ 0.8441984.3081.1  | 171  | 4.241                                  | 1.064                                  | -2.913  | 0.820                                 |
| 474 $4.271$ $1.064$ $-2.913$ $0.820$ $175$ $4.273$ $1.064$ $-2.917$ $0.824$ $176$ $4.262$ $1.064$ $-2.913$ $0.820$ $177$ $4.263$ $1.064$ $-2.923$ $0.820$ $177$ $4.263$ $1.064$ $-2.920$ $0.832$ $179$ $4.258$ $1.108$ $-2.920$ $0.832$ $179$ $4.258$ $1.108$ $-2.920$ $0.832$ $180$ $4.262$ $1.108$ $-2.916$ $0.824$ $181$ $4.267$ $1.108$ $-2.910$ $0.832$ $182$ $4.296$ $1.100$ $-2.907$ $0.840$ $184$ $4.287$ $1.108$ $-2.916$ $0.832$ $183$ $4.296$ $1.100$ $-2.907$ $0.840$ $184$ $4.281$ $1.108$ $-2.916$ $0.840$ $185$ $4.265$ $1.112$ $-2.915$ $0.840$ $186$ $4.272$ $1.112$ $-2.922$ $0.840$ $188$ $4.250$ $1.112$ $-2.928$ $0.840$ $188$ $4.250$ $1.112$ $-2.938$ $0.840$ $191$ $4.253$ $1.112$ $-2.943$ $0.840$ $192$ $4.285$ $1.112$ $-2.945$ $0.840$ $193$ $4.276$ $1.112$ $-2.942$ $0.842$ $194$ $4.277$ $1.112$ $-2.942$ $0.842$ $195$ $4.284$ $1.112$ $-2.942$ $0.842$ $194$ $4.277$ $1.112$ $-2.942$ $0.844$ $194$   | 172  | 4.276                                  | 1.064                                  | -2.917  | 0.820                                 |
| 175 $4.273$ $1.064$ $-2.917$ $0.824$ 176 $4.262$ $1.064$ $-2.913$ $0.820$ 177 $4.263$ $1.064$ $-2.924$ $0.820$ 178 $4.274$ $1.108$ $-2.920$ $0.832$ 179 $4.268$ $1.108$ $-2.920$ $0.832$ 180 $4.262$ $1.108$ $-2.916$ $0.824$ 181 $4.267$ $1.108$ $-2.916$ $0.832$ 182 $4.266$ $1.100$ $-2.908$ $0.832$ 183 $4.296$ $1.100$ $-2.907$ $0.840$ 184 $4.281$ $1.108$ $-2.916$ $0.840$ 185 $4.265$ $1.112$ $-2.915$ $0.840$ 186 $4.272$ $1.112$ $-2.915$ $0.840$ 186 $4.272$ $1.112$ $-2.925$ $0.840$ 187 $4.243$ $1.112$ $-2.928$ $0.840$ 189 $4.244$ $1.112$ $-2.938$ $0.848$ 190 $4.250$ $1.120$ $-2.943$ $0.840$ 191 $4.253$ $1.112$ $-2.939$ $0.840$ 192 $4.285$ $1.112$ $-2.939$ $0.840$ 193 $4.276$ $1.112$ $-2.942$ $0.832$ 196 $4.299$ $1.112$ $-2.942$ $0.843$ 197 $4.285$ $1.112$ $-2.942$ $0.844$ 198 $4.308$ $1.112$ $-2.942$ $0.844$ 199 $4.296$ $1.108$ $-2.941$ $0.844$ 199 $4.296$ $1.108$ $-2.941$  | 173  | 4.258                                  | 1.064                                  | -2.910  | 0.820                                 |
| 176 $4.262$ $1.064$ $-2.913$ $0.820$ $177$ $4.263$ $1.064$ $-2.924$ $0.820$ $178$ $4.274$ $1.108$ $-2.920$ $0.832$ $179$ $4.258$ $1.108$ $-2.920$ $0.832$ $180$ $4.262$ $1.108$ $-2.910$ $0.832$ $181$ $4.267$ $1.108$ $-2.910$ $0.832$ $182$ $4.296$ $1.100$ $-2.908$ $0.832$ $183$ $4.296$ $1.100$ $-2.907$ $0.840$ $184$ $4.265$ $1.112$ $-2.916$ $0.840$ $185$ $4.265$ $1.112$ $-2.915$ $0.840$ $186$ $4.272$ $1.112$ $-2.925$ $0.840$ $186$ $4.272$ $1.112$ $-2.925$ $0.840$ $186$ $4.272$ $1.112$ $-2.925$ $0.840$ $188$ $4.250$ $1.112$ $-2.925$ $0.840$ $189$ $4.244$ $1.112$ $-2.938$ $0.840$ $191$ $4.253$ $1.112$ $-2.943$ $0.840$ $192$ $4.285$ $1.112$ $-2.945$ $0.840$ $193$ $4.276$ $1.112$ $-2.945$ $0.840$ $194$ $4.277$ $1.112$ $-2.942$ $0.832$ $196$ $4.299$ $1.112$ $-2.942$ $0.832$ $196$ $4.299$ $1.112$ $-2.942$ $0.844$ $197$ $4.285$ $1.112$ $-2.942$ $0.844$ $198$ $4.308$ $1.112$ $-2.940$ $0.844$ $198$   | .174 | 4.271                                  | 1.064                                  | -2.913  | 0.820                                 |
| 176 $4.262$ $1.064$ $-2.913$ $0.820$ $177$ $4.263$ $1.064$ $-2.924$ $0.820$ $178$ $4.274$ $1.108$ $-2.920$ $0.832$ $179$ $4.268$ $1.108$ $-2.920$ $0.832$ $180$ $4.262$ $1.108$ $-2.916$ $0.824$ $181$ $4.267$ $1.106$ $-2.916$ $0.824$ $181$ $4.267$ $1.106$ $-2.910$ $0.832$ $182$ $4.296$ $1.100$ $-2.908$ $0.832$ $183$ $4.296$ $1.100$ $-2.907$ $0.840$ $184$ $4.281$ $1.108$ $-2.916$ $0.840$ $185$ $4.265$ $1.112$ $-2.915$ $0.840$ $186$ $4.272$ $1.112$ $-2.925$ $0.840$ $186$ $4.272$ $1.112$ $-2.925$ $0.840$ $188$ $4.250$ $1.112$ $-2.925$ $0.840$ $189$ $4.244$ $1.112$ $-2.928$ $0.840$ $191$ $4.253$ $1.112$ $-2.943$ $0.840$ $192$ $4.285$ $1.112$ $-2.949$ $0.840$ $193$ $4.276$ $1.112$ $-2.942$ $0.832$ $196$ $4.299$ $1.112$ $-2.942$ $0.832$ $196$ $4.299$ $1.112$ $-2.942$ $0.842$ $194$ $4.277$ $1.112$ $-2.942$ $0.844$ $194$ $4.277$ $1.112$ $-2.942$ $0.842$ $196$ $4.299$ $1.112$ $-2.942$ $0.844$ $197$   | 175  | 4.273                                  | 1.064                                  | -2.917  | 0.824                                 |
| 177 $4.263$ $1.064$ $-2.924$ $0.820$ $178$ $4.274$ $1.108$ $-2.920$ $0.832$ $179$ $4.258$ $1.108$ $-2.920$ $0.832$ $180$ $4.262$ $1.108$ $-2.916$ $0.824$ $181$ $4.287$ $1.108$ $-2.910$ $0.832$ $182$ $4.266$ $1.100$ $-2.908$ $0.832$ $183$ $4.296$ $1.100$ $-2.907$ $0.840$ $184$ $4.281$ $1.108$ $-2.916$ $0.840$ $184$ $4.281$ $1.108$ $-2.916$ $0.840$ $185$ $4.265$ $1.112$ $-2.915$ $0.840$ $186$ $4.272$ $1.112$ $-2.925$ $0.840$ $186$ $4.260$ $1.112$ $-2.925$ $0.840$ $186$ $4.250$ $1.112$ $-2.925$ $0.840$ $189$ $4.244$ $1.112$ $-2.926$ $0.840$ $190$ $4.250$ $1.120$ $-2.943$ $0.840$ $192$ $4.285$ $1.112$ $-2.945$ $0.840$ $192$ $4.285$ $1.112$ $-2.945$ $0.840$ $193$ $4.276$ $1.112$ $-2.942$ $0.832$ $196$ $4.299$ $1.112$ $-2.942$ $0.844$ $197$ $4.285$ $1.112$ $-2.942$ $0.844$ $198$ $4.308$ $1.112$ $-2.940$ $0.842$ $198$ $4.308$ $1.112$ $-2.942$ $0.844$ $197$ $4.285$ $1.112$ $-2.942$ $0.844$ $198$   |      |  |  | -2.913  | 0.820                                 |
| 178 $4.274$ $1.108$ $-2.920$ $0.832$ 179 $4.258$ $1.108$ $-2.920$ $0.832$ 180 $4.262$ $1.108$ $-2.916$ $0.832$ 181 $4.287$ $1.108$ $-2.916$ $0.824$ 181 $4.287$ $1.108$ $-2.910$ $0.832$ 182 $4.296$ $1.100$ $-2.908$ $0.832$ 183 $4.296$ $1.100$ $-2.907$ $0.840$ 184 $4.281$ $1.108$ $-2.916$ $0.840$ 185 $4.265$ $1.112$ $-2.915$ $0.840$ 186 $4.272$ $1.112$ $-2.912$ $0.848$ 187 $4.243$ $1.112$ $-2.928$ $0.840$ 188 $4.250$ $1.112$ $-2.928$ $0.840$ 189 $4.244$ $1.112$ $-2.943$ $0.840$ 190 $4.253$ $1.112$ $-2.943$ $0.840$ 191 $4.253$ $1.112$ $-2.943$ $0.840$ 192 $4.285$ $1.112$ $-2.945$ $0.840$ 193 $4.276$ $1.112$ $-2.945$ $0.840$ 194 $4.277$ $1.112$ $-2.945$ $0.840$ 195 $4.284$ $1.112$ $-2.942$ $0.842$ 196 $4.299$ $1.112$ $-2.942$ $0.844$ 197 $4.285$ $1.112$ $-2.942$ $0.844$ 198 $4.308$ $1.112$ $-2.942$ $0.844$ 199 $4.296$ $1.108$ $-2.941$ $0.848$ 200 $4.293$ $1.100$ $-2.940$  |      |  |  | -2.924  | 0.820                                 |
| 179 $4.258$ $1.108$ $-2.920$ $0.832$ 180 $4.262$ $1.108$ $-2.916$ $0.624$ 181 $4.287$ $1.108$ $-2.916$ $0.832$ 182 $4.296$ $1.100$ $-2.908$ $0.832$ 183 $4.296$ $1.100$ $-2.907$ $0.840$ 184 $4.281$ $1.108$ $-2.916$ $0.840$ 185 $4.265$ $1.112$ $-2.915$ $0.840$ 186 $4.272$ $1.112$ $-2.915$ $0.840$ 188 $4.265$ $1.112$ $-2.925$ $0.840$ 188 $4.250$ $1.112$ $-2.925$ $0.840$ 189 $4.244$ $1.112$ $-2.938$ $0.840$ 190 $4.250$ $1.112$ $-2.943$ $0.840$ 191 $4.253$ $1.112$ $-2.943$ $0.840$ 192 $4.285$ $1.112$ $-2.943$ $0.840$ 193 $4.276$ $1.112$ $-2.945$ $0.840$ 194 $4.277$ $1.112$ $-2.945$ $0.840$ 195 $4.284$ $1.112$ $-2.945$ $0.840$ 196 $4.299$ $1.112$ $-2.942$ $0.844$ 197 $4.285$ $1.112$ $-2.942$ $0.844$ 198 $4.308$ $1.112$ $-2.940$ $0.844$ 199 $4.296$ $1.108$ $-2.941$ $0.848$ 200 $4.293$ $1.100$ $-2.940$ $0.828$ $\mathbb{R}/\mathbbmid$ $4.096$ $1.168$ $-2.949$ $0.812$ $\mathbb{R}/\mathbbmid$ $4.039$ $0.148$   |      |  |  |         | 0.832                                 |
| 180 $4.262$ $1.108$ $-2.916$ $0.824$ $181$ $4.267$ $1.100$ $-2.910$ $0.832$ $182$ $4.296$ $1.100$ $-2.908$ $0.832$ $183$ $4.296$ $1.100$ $-2.907$ $0.840$ $184$ $4.281$ $1.108$ $-2.916$ $0.840$ $185$ $4.265$ $1.112$ $-2.915$ $0.840$ $186$ $4.272$ $1.112$ $-2.915$ $0.840$ $186$ $4.272$ $1.112$ $-2.925$ $0.840$ $188$ $4.250$ $1.112$ $-2.928$ $0.840$ $189$ $4.243$ $1.112$ $-2.938$ $0.848$ $190$ $4.250$ $1.120$ $-2.943$ $0.840$ $191$ $4.253$ $1.112$ $-2.949$ $0.840$ $192$ $4.285$ $1.112$ $-2.949$ $0.840$ $193$ $4.276$ $1.112$ $-2.942$ $0.840$ $194$ $4.277$ $1.112$ $-2.942$ $0.840$ $195$ $4.284$ $1.112$ $-2.942$ $0.840$ $196$ $4.299$ $1.112$ $-2.942$ $0.822$ $198$ $4.308$ $1.112$ $-2.942$ $0.844$ $199$ $4.265$ $1.112$ $-2.942$ $0.844$ $199$ $4.296$ $1.108$ $-2.941$ $0.848$ $200$ $4.293$ $1.100$ $-2.949$ $0.812$ $198$ $4.308$ $1.112$ $-2.949$ $0.812$ $199$ $4.297$ $1.068$ $-2.949$ $0.812$ $2940$  |      |  | ······································ |         | 0.832                                 |
| 181 $4.287$ $1.108$ $-2.910$ $0.832$ $182$ $4.296$ $1.100$ $-2.908$ $0.832$ $183$ $4.296$ $1.100$ $-2.907$ $0.840$ $184$ $4.281$ $1.108$ $-2.916$ $0.840$ $185$ $4.265$ $1.112$ $-2.915$ $0.840$ $186$ $4.272$ $1.112$ $-2.915$ $0.840$ $186$ $4.272$ $1.112$ $-2.925$ $0.840$ $186$ $4.272$ $1.112$ $-2.923$ $0.840$ $188$ $4.250$ $1.112$ $-2.928$ $0.840$ $189$ $4.244$ $1.112$ $-2.943$ $0.840$ $191$ $4.253$ $1.112$ $-2.949$ $0.840$ $192$ $4.285$ $1.112$ $-2.949$ $0.840$ $193$ $4.276$ $1.112$ $-2.945$ $0.840$ $194$ $4.277$ $1.112$ $-2.945$ $0.840$ $195$ $4.284$ $1.112$ $-2.945$ $0.840$ $196$ $4.299$ $1.112$ $-2.942$ $0.842$ $196$ $4.299$ $1.112$ $-2.942$ $0.842$ $198$ $4.308$ $1.112$ $-2.941$ $0.848$ $200$ $4.293$ $1.100$ $-2.941$ $0.848$ $200$ $4.293$ $1.100$ $-2.949$ $0.812$ $284$ $0.112$ $-2.903$ $0.848$ $204$ $0.309$ $0.084$ $0.148$ $0.056$ $374$ $0.182$ $-2.949$ $0.812$ $284$ $0.119$ $0.016$ <  |      |  |  |         |                                       |
| $182$ $4.296$ $1.100$ $-2.908$ $0.832$ $183$ $4.296$ $1.100$ $-2.907$ $0.840$ $184$ $4.281$ $1.108$ $-2.916$ $0.840$ $185$ $4.265$ $1.112$ $-2.915$ $0.840$ $186$ $4.272$ $1.112$ $-2.912$ $0.848$ $187$ $4.243$ $1.112$ $-2.925$ $0.840$ $188$ $4.250$ $1.112$ $-2.928$ $0.840$ $189$ $4.244$ $1.112$ $-2.938$ $0.840$ $190$ $4.250$ $1.120$ $-2.943$ $0.840$ $191$ $4.253$ $1.112$ $-2.945$ $0.840$ $192$ $4.265$ $1.112$ $-2.945$ $0.840$ $193$ $4.276$ $1.112$ $-2.945$ $0.840$ $194$ $4.277$ $1.112$ $-2.942$ $0.832$ $196$ $4.299$ $1.112$ $-2.955$ $0.824$ $197$ $4.285$ $1.112$ $-2.942$ $0.840$ $197$ $4.285$ $1.112$ $-2.942$ $0.844$ $199$ $4.296$ $1.108$ $-2.941$ $0.848$ $200$ $4.293$ $1.100$ $-2.940$ $0.828$ $8\chi$ $1.100$ $-2.949$ $0.812$ $2\%$ $6.344$ $1.12$ $-2.903$ $0.848$ $200$ $4.293$ $1.100$ $-2.942$ $0.848$ $200$ $4.293$ $1.100$ $-2.949$ $0.812$ $2\%$ $1.12$ $-2.903$ $0.848$ $204$ $4.297$ $1.068$   |      |  | · · · · · · · · · · · · · · · · · · ·  |         |                                       |
| 1834.2961.100 $-2.907$ $0.840$ 1844.2811.108 $-2.916$ $0.840$ 1854.2651.112 $-2.915$ $0.840$ 1864.2721.112 $-2.912$ $0.848$ 1874.2431.112 $-2.925$ $0.840$ 1884.2501.112 $-2.928$ $0.840$ 1894.2441.112 $-2.938$ $0.848$ 1904.2501.120 $-2.943$ $0.840$ 1914.2531.112 $-2.949$ $0.840$ 1924.2851.112 $-2.949$ $0.840$ 1934.2761.112 $-2.945$ $0.840$ 1944.2771.112 $-2.945$ $0.840$ 1954.2841.112 $-2.942$ $0.832$ 1964.2991.112 $-2.942$ $0.840$ 1974.2851.112 $-2.942$ $0.844$ 1984.3081.112 $-2.942$ $0.844$ 1994.2961.108 $-2.941$ $0.848$ 2004.2931.100 $-2.940$ $0.828$ $\mathbb{R}/\mathbb{R}$ 4.4091.12 $-2.903$ $0.848$ $\mathbb{R}/\mathbb{R}$ 4.4091.12 $-2.949$ $0.812$ $\mathbb{R}/\mathbb{R}$ 4.091.12 $-2.940$ $0.828$ $\mathbb{R}/\mathbb{R}$ 0.309 $0.084$ $0.148$ $0.056$ $\mathbb{R}/\mathbb{R}$ 0.119 $0.016$ $0.055$ $0.014$  |      | ······································ |  |         |                                       |
| 1844.2811.108 $-2.916$ $0.840$ 1854.2651.112 $-2.915$ $0.840$ 1864.2721.112 $-2.912$ $0.848$ 1874.2431.112 $-2.925$ $0.840$ 1884.2501.112 $-2.928$ $0.840$ 1894.2441.112 $-2.938$ $0.848$ 1904.2501.120 $-2.943$ $0.840$ 1914.2531.112 $-2.943$ $0.840$ 1924.2851.112 $-2.945$ $0.840$ 1934.2761.112 $-2.945$ $0.848$ 1944.2771.112 $-2.945$ $0.840$ 1954.2841.112 $-2.942$ $0.832$ 1964.2991.112 $-2.942$ $0.840$ 1974.2851.112 $-2.942$ $0.844$ 1984.3081.112 $-2.942$ $0.844$ 1994.2961.108 $-2.941$ $0.848$ 2004.2931.100 $-2.940$ $0.828$ $8\chitai$ 4.4091.12 $-2.903$ $0.848$ 2004.2931.100 $-2.940$ $0.828$ $8\chitai$ 4.3081.112 $-2.949$ $0.812$ $2\pi$ 1.068 $-2.949$ $0.812$ $2\pi$ 1.068 $-2.949$ $0.812$ $2\pi$ 1.068 $-2.949$ $0.812$ $2\pi$ 0.064 $0.148$ $0.066$ $5\pi$ 0.1190.016 $0.055$ $0.014$  | [    |  |  | <u></u> |                                       |
| 185       4.265       1.112       -2.915       0.840         186       4.272       1.112       -2.912       0.848         187       4.243       1.112       -2.925       0.840         188       4.250       1.112       -2.928       0.840         189       4.244       1.112       -2.938       0.840         189       4.244       1.112       -2.938       0.840         190       4.250       1.120       -2.943       0.840         191       4.253       1.112       -2.949       0.840         192       4.285       1.112       -2.945       0.840         193       4.276       1.112       -2.945       0.848         194       4.277       1.112       -2.939       0.840         195       4.284       1.112       -2.942       0.832         196       4.299       1.112       -2.942       0.844         197       4.285       1.112       -2.942       0.844         198       4.308       1.112       -2.942       0.844         199       4.296       1.108       -2.941       0.848         200       4.293       1.000<   |      |  |  |         |                                       |
| 186         4.272         1.112         -2.912         0.848           187         4.243         1.112         -2.925         0.840           188         4.250         1.112         -2.928         0.840           189         4.244         1.112         -2.938         0.840           189         4.244         1.112         -2.943         0.840           190         4.250         1.120         -2.943         0.840           191         4.253         1.112         -2.949         0.840           192         4.285         1.112         -2.945         0.848           194         4.277         1.112         -2.945         0.848           194         4.277         1.112         -2.945         0.840           195         4.284         1.112         -2.942         0.832           196         4.299         1.112         -2.955         0.824           197         4.285         1.112         -2.942         0.844           198         4.308         1.112         -2.942         0.844           199         4.296         1.108         -2.941         0.848           200         4.293 |      |  |  |         |                                       |
| $187$ $4.243$ $1.112$ $-2.925$ $0.840$ $188$ $4.250$ $1.112$ $-2.928$ $0.840$ $189$ $4.244$ $1.112$ $-2.938$ $0.848$ $190$ $4.250$ $1.120$ $-2.943$ $0.840$ $191$ $4.253$ $1.112$ $-2.943$ $0.840$ $192$ $4.285$ $1.112$ $-2.945$ $0.840$ $193$ $4.276$ $1.112$ $-2.945$ $0.840$ $193$ $4.276$ $1.112$ $-2.945$ $0.840$ $194$ $4.277$ $1.112$ $-2.945$ $0.840$ $195$ $4.284$ $1.112$ $-2.942$ $0.832$ $196$ $4.299$ $1.112$ $-2.955$ $0.824$ $197$ $4.285$ $1.112$ $-2.942$ $0.840$ $197$ $4.285$ $1.112$ $-2.942$ $0.844$ $198$ $4.308$ $1.112$ $-2.942$ $0.844$ $199$ $4.996$ $1.108$ $-2.941$ $0.848$ $200$ $4.293$ $1.100$ $-2.940$ $0.828$ $8\chi$ / $a$ $4.109$ $1.12$ $-2.903$ $0.848$ $8\psi$ / $a$ $4.297$ $1.068$ $-2.949$ $0.812$ $2h/a$ $0.309$ $0.084$ $0.148$ $0.056$ $8\pi$ $0.119$ $0.016$ $0.055$ $0.014$   |      |  |  |         |                                       |
| 1884.2501.112-2.9280.8401894.2441.112-2.9380.8481904.2501.120-2.9430.8401914.2531.112-2.9490.8401924.2851.112-2.9450.8401934.2761.112-2.9450.8401944.2771.112-2.9390.8401954.2841.112-2.9420.8321964.2991.112-2.9500.8401974.2851.112-2.9550.8241984.3081.112-2.9420.8441994.961.108-2.9410.8482004.2931.100-2.9400.828表/値4.11.036-3.0510.792平均値4.2971.068-2.9490.812差値0.3090.0840.1480.056标准差0.1190.0160.0550.014   |      |  | · · · · · · · · · · · · · · · · · · ·  |         |                                       |
| $189$ $4.244$ $1.112$ $-2.938$ $0.848$ $190$ $4.250$ $1.120$ $-2.943$ $0.840$ $191$ $4.253$ $1.112$ $-2.949$ $0.840$ $192$ $4.285$ $1.112$ $-2.951$ $0.840$ $193$ $4.276$ $1.112$ $-2.945$ $0.848$ $194$ $4.277$ $1.112$ $-2.939$ $0.840$ $195$ $4.284$ $1.112$ $-2.942$ $0.832$ $196$ $4.299$ $1.112$ $-2.955$ $0.840$ $197$ $4.285$ $1.112$ $-2.942$ $0.840$ $197$ $4.285$ $1.112$ $-2.942$ $0.844$ $198$ $4.308$ $1.112$ $-2.942$ $0.844$ $199$ $4.296$ $1.108$ $-2.941$ $0.848$ $200$ $4.293$ $1.100$ $-2.940$ $0.828$ $8\sqrt{16}$ $4.409$ $1.12$ $-2.903$ $0.848$ $8\sqrt{16}$ $4.1$ $1.036$ $-3.051$ $0.792$ $F4/6$ $0.068$ $-2.949$ $0.812$ $F4/6$ $0.068$ $-2.949$ $0.812$ $F4/6$ $0.084$ $0.148$ $0.056$ $F4/6$ $0.119$ $0.016$ $0.055$ $0.014$  |      |  |  |         | · · · · · · · · · · · · · · · · · · · |
| 190 $4.250$ $1.120$ $-2.943$ $0.840$ 191 $4.253$ $1.112$ $-2.949$ $0.840$ 192 $4.285$ $1.112$ $-2.951$ $0.840$ 193 $4.276$ $1.112$ $-2.945$ $0.848$ 194 $4.277$ $1.112$ $-2.939$ $0.840$ 195 $4.284$ $1.112$ $-2.942$ $0.832$ 196 $4.299$ $1.112$ $-2.955$ $0.840$ 197 $4.285$ $1.112$ $-2.955$ $0.844$ 198 $4.308$ $1.112$ $-2.942$ $0.844$ 199 $4.296$ $1.108$ $-2.941$ $0.848$ 200 $4.293$ $1.100$ $-2.940$ $0.828$ $8\chi/ie$ $4.109$ $1.12$ $-2.903$ $0.848$ $8\sqrt{ie}$ $4.109$ $1.12$ $-2.903$ $0.848$ $8\sqrt{ie}$ $4.297$ $1.068$ $-2.949$ $0.812$ $E/ie$ $0.309$ $0.084$ $0.148$ $0.056$ $ie$ $0.119$ $0.016$ $0.055$ $0.014$   |      |  |  |         |                                       |
| 191 $4.253$ $1.112$ $-2.949$ $0.840$ 192 $4.285$ $1.112$ $-2.951$ $0.840$ 193 $4.276$ $1.112$ $-2.945$ $0.848$ 194 $4.277$ $1.112$ $-2.939$ $0.840$ 195 $4.284$ $1.112$ $-2.942$ $0.832$ 196 $4.299$ $1.112$ $-2.955$ $0.840$ 197 $4.285$ $1.112$ $-2.955$ $0.824$ 198 $4.308$ $1.112$ $-2.942$ $0.844$ 199 $4.296$ $1.108$ $-2.941$ $0.848$ 200 $4.293$ $1.100$ $-2.940$ $0.828$ $8\chita$ $4.10$ $1.026$ $-3.051$ $0.792$ $\pib/a$ $4.297$ $1.068$ $-2.949$ $0.812$ $E/a$ $0.309$ $0.084$ $0.148$ $0.056$ $\%ta \dot{k}$ $0.119$ $0.016$ $0.055$ $0.014$   |      |  |  |         |                                       |
| 192 $4.285$ $1.112$ $-2.951$ $0.840$ 193 $4.276$ $1.112$ $-2.945$ $0.848$ 194 $4.277$ $1.112$ $-2.939$ $0.840$ 195 $4.284$ $1.112$ $-2.942$ $0.832$ 196 $4.299$ $1.112$ $-2.950$ $0.840$ 197 $4.285$ $1.112$ $-2.955$ $0.824$ 198 $4.308$ $1.112$ $-2.942$ $0.844$ 199 $4.296$ $1.108$ $-2.941$ $0.848$ 200 $4.293$ $1.100$ $-2.940$ $0.828$ $\overline{k}/\overline{m}$ $4.409$ $1.12$ $-2.903$ $0.848$ $\overline{k}/\overline{m}$ $4.297$ $1.068$ $-2.949$ $0.812$ $\overline{k}/\overline{m}$ $4.297$ $1.068$ $-2.949$ $0.812$ $\overline{k}/\overline{m}$ $0.016$ $0.055$ $0.014$   |      |  |  |         |                                       |
| 1934.2761.112-2.9450.8481944.2771.112-2.9390.8401954.2841.112-2.9420.8321964.2991.112-2.9500.8401974.2851.112-2.9550.8241984.3081.112-2.9420.8441994.2961.108-2.9410.8482004.2931.100-2.9400.828最大値4.4091.12-2.9030.848最小値4.11.036-3.0510.792平均値4.2971.068-2.9490.812差値0.3090.0840.1480.056添准差0.1190.0160.0550.014   |      |  |  |         |                                       |
| 1944.2771.112-2.9390.8401954.2841.112-2.9420.8321964.2991.112-2.9500.8401974.2851.112-2.9550.8241984.3081.112-2.9420.8441994.2961.108-2.9410.8482004.2931.100-2.9400.828最大値4.4091.12-2.9030.848最大値4.11.036-3.0510.792平均値4.2971.068-2.9490.812差値0.3090.0840.1480.056际准差0.1190.0160.0550.014   |      |  |  |         |                                       |
| 1954.2841.112-2.9420.8321964.2991.112-2.9500.8401974.2851.112-2.9550.8241984.3081.112-2.9420.8441994.2961.108-2.9410.8482004.2931.100-2.9400.828最大値4.4091.12-2.9030.848最大値4.11.036-3.0510.792平均値4.2971.068-2.9490.812差値0.3090.0840.1480.056原水准差0.1190.0160.0550.014  |      |  |  |         |                                       |
| 1964.2991.112-2.9500.8401974.2851.112-2.9550.8241984.3081.112-2.9420.8441994.2961.108-2.9410.8482004.2931.100-2.9400.8288大値4.4091.12-2.9030.848最小値4.11.036-3.0510.792平均値4.2971.068-2.9490.812差値0.3090.0840.1480.056际准差0.1190.0160.0550.014   |      |  |  |         |                                       |
| 1974.2851.112-2.9550.8241984.3081.112-2.9420.8441994.2961.108-2.9410.8482004.2931.100-2.9400.8288大値4.4091.12-2.9030.848最大値4.11.036-3.0510.792平均値4.2971.068-2.9490.812差値0.3090.0840.1480.056际准差0.1190.0160.0550.014   |      |  |  |         |                                       |
| 1984.3081.112-2.9420.8441994.2961.108-2.9410.8482004.2931.100-2.9400.828最大値4.4091.12-2.9030.848最小値4.11.036-3.0510.792平均値4.2971.068-2.9490.812差値0.3090.0840.1480.056际准差0.1190.0160.0550.014   |      |  |  |         |                                       |
| 199       4 296       1.108       -2 941       0.848         200       4.293       1.100       -2.940       0.828         最大値       4.409       1.12       -2.903       0.848         最小値       4.1       1.036       -3.051       0.792         平均値       4.297       1.068       -2.949       0.812         差値       0.309       0.084       0.148       0.056         标准差       0.119       0.016       0.055       0.014   |      |  |  |         |                                       |
| 2004.2931.100-2.9400.828最大値4.4091.12-2.9030.848最小値4.11.036-3.0510.792平均値4.2971.068-2.9490.812差値0.3090.0840.1480.056际准差0.1190.0160.0550.014   |      |  |  |         | · · · · · · · · · · · · · · · · · · · |
| 最大値4.4091.12-2.9030.848最小値4.11.036-3.0510.792平均値4.2971.068-2.9490.812差値0.3090.0840.1480.056际准差0.1190.0160.0550.014   |      |  |  |         |                                       |
| 最小値4.11.036-3.0510.792最小値4.2971.068-2.9490.812差値0.3090.0840.1480.056际准差0.1190.0160.0550.014  |      |  |  |         |                                       |
| 平均值       4.297       1.068       -2.949       0.812         差值       0.309       0.084       0.148       0.056         标准差       0.119       0.016       0.055       0.014  |      |  |  |         |                                       |
| 差値         0.309         0.084         0.148         0.056           标准差         0.119         0.016         0.055         0.014   |      | ······································ |  |         |                                       |
| 标准差 0.119 0.016 0.055 0.014  |      |  |  |         |                                       |
|  |      |  |  | ······  |                                       |
|  | 际准差  | 0.119                                  | 0.016                                  | 0.055   | 0.014                                 |
|  |      | 0.309                                  | 0.084                                  | 0.148   | 0.056<br>0.014                        |





# 三、導通測試

| 序號 | 規格        | 測試數據     | 判定   |
|----|-----------|----------|------|
| 1  | <50 m ohm | 24 m ohm | pass |
| 2  | <50 m ohm | 28 m ohm | pass |
| 3  | <50 m ohm | 30 m ohm | pass |
| 4  | <50 m ohm | 32 m ohm | pass |
| 5  | <50 m ohm | 28 m ohm | pass |
| 6  | <50 m ohm | 27 m ohm | pass |
| 7  | <50 m ohm | 31 m ohm | pass |
| 8  | <50 m ohm | 34 m ohm | pass |

核准: Allen Wang 審核: Dick Je 制作: Yang-Jui 1750-1 (730')

DSM Engineering Plastics Jiangsu Zhouzhuang,jianyin Jiangsu Province, China 214423 Telephone(510)624507, Telefax(510)6223507

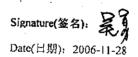
# Analysis Certificate

Grade(型号): Stanyl TS250F6D

Color(颜色): BLACK 9B0040

Batch(批号): BJ470505

| Characteristics<br>住館                | Test Method<br>测试方法 | Unit<br>单位 | Result<br>结果 | Specifications<br>规格 |
|--------------------------------------|---------------------|------------|--------------|----------------------|
| Moisture<br>木份                       | JSO15512            | %          | 0.028        | <=0.075              |
| VN<br>粘数                             | ISO307              | ml/g       | 157.67       | 160+/-20             |
| Reinforceing filler content<br>填充物含量 | ISO3451             | %          | 30.39        | 31.0+/-2.0           |
| UL94(0.8)<br><b>阳</b> 燃              | UL94                |            | V-0          | V-0                  |



The meterial covered by this delivery is produced in accordance with DSM Engineering Plastics jiangsu(DEPJ)s manufacturing specifications currently in force for this product grade, unless otherwise stated hereinafter DEPJ certifies that the material supplied contorms to the performance typicet for this grade and production description, and has been monitored in accordance with the internal quality control routines employed in our company. However, the buyer must check the suitability of this grade for the actual application.

当过明光材料将含必顾曼工程塑料(江茶)有限全司该产品型号硬行有处之生严疑特恪宗以下另有声明,必用是工程塑料(江苏)有限公司江明所供材料将含法型号性能特性和产品搞 道。且已接黑各会司内布质量短制规况进行器例、但是,若方应该对型号和实际用沿之间的适合性。

This certificate does not release the recipient from his obligation to carry out his usual incoming goods inspections. 本证书并未免体认觉人进行常处通觉检查分支任。

Additional Remarks:

4-il:

本村杆开合产品销售合用中间接送的标准。

# 絕緣阻抗測試報告

品名:0.5BTB60PIN(無柱) 數量:8Set 送測日期:2007/10/30 料號:2530-14600B-N1/2530-04600B-C1 送測單位:品保部(IPQC) 完成日期:2007/10/30

| Sample | Specification -            | Test Data |      |      | Indee |
|--------|----------------------------|-----------|------|------|-------|
|        |                            | Max.      | Min. | Avg. | Judge |
| 1      | 100 <b>M</b> Ω <b>M</b> in | >999      | >999 | >999 | PASS  |
| 2      | $100 M\Omega Min$          | >999      | >999 | >999 | PASS  |
| 3      | 100MΩMin                   | >999      | >999 | >999 | PASS  |
| 4      | 100MΩMin                   | >999      | >999 | >999 | PASS  |
| 5      | 100 <b>M</b> Ω <b>M</b> in | >999      | >999 | >999 | PASS  |
| 6      | $100 M\Omega Min$          | >999      | >999 | >999 | PASS  |
| 7      | 100MΩMin                   | >999      | >999 | >999 | PASS  |
| 8      | $100 M \Omega M in$        | >999      | >999 | >999 | PASS  |

# 接觸阻抗測試報告

品名:0.5BTB60PIN(無柱) 數量:8Set 送測日期:2007/10/30 料號:2530-14600B-N1/2530-04600B-C1 送測單位:品保部(IPQC) 完成日期:2007/10/30

| Sample | Specification | Test Data |      |      | Tudaa |
|--------|---------------|-----------|------|------|-------|
|        |               | Max.      | Min. | Avg. | Judge |
| 1      | 50mΩMax       | 32.5      | 16.7 | 17.2 | PASS  |
| 2      | 50mΩMax       | 31.6      | 15.8 | 17.4 | PASS  |
| 3      | 50mΩMax       | 28.9      | 14.2 | 16.8 | PASS  |
| 4      | 50mΩMax       | 24.6      | 14.3 | 16.4 | PASS  |
| 5      | 50mΩMax       | 24.8      | 15.8 | 17.0 | PASS  |
| 6      | 50mΩMax       | 25.6      | 16.4 | 17.5 | PASS  |
| 7      | 50mΩMax       | 24.3      | 17.0 | 18.2 | PASS  |
| 8      | 50mΩMax       | 23.8      | 14.8 | 16.7 | PASS  |

審核:

Allen 10/2007

制表: Sunt 2 + 200 - 7

