



QS9000 & ISO14001 & TS16949 **CHILISIN ELECTRONICS CORP.**

RoHS & Halogen Free & REACH Compliance.

SPECIFICATION FOR APPROVAL

CUSTOMER : Eltech

CUSTOMER P/N : _____

OUR DWG No : CE1-5A0919

QUANTITY : x Pcs. **DATE :** 2015/11/6

ITEM : SL0810T-102K-N

| SPECIFICATION ACCEPTED BY: | |
|-------------------------------|--|
| COMPONENT ENGINEER | |
| ELECTRICAL ENGINEER | |
| MECHANICAL ENGINEER | |
| APPROVED | |
| REJECTED | |

奇力新電子股份有限公司
CHILISIN ELECTRONICS CORP.
NO.29,LANE 301,TEHHSIN
ROAD,HUKOU,
HSINCHU,TAIWAN,303,
REPUBLIC OF CHINA
TEL : (03) 599-2646
FAX : (03) 599-9176
E-mail : Sales@chilisin.com.tw
http : //www.chilisin.com.tw

東莞奇力新電子有限公司
Chilisin Electronics (Dongguan) Co., Ltd.
No. 78, Puxing Rd., Yuliangwei
Administration Area, Qingxi Town,
Dongguan City, Guangdong,China
TEL : +86-769-8773-0251~3
FAX : +86-769-8773-0232
E-mail : ceect@chilisin.com.tw

奇力新電子(河南)有限公司
Chilisin Electronics (Henan) Co., Ltd.
XiuWu Xian, industry gathering area
JiaoZuo, Henan China
Postal Code:454350
TEL:+86-391-717-0682
FAX:+86-391-717-0666

奇力新電子(蘇州)有限公司
Chilisin Electronics (Suzhou) Co., Ltd.
No.143,Song Shan Rd., Suzhou New
District, Suzhou,China
Postal Code:215129
TEL:+86-512-6841-2350
FAX:+86-512-6841-2356
E-mail : suzhou@chilisin.com.tw

| | | | | | | | |
|-----------------|----------|-------------------|--------|--------------------|----------|---------------|--|
| DRAWN BY | Jiusheng | CHECKED BY | Liukan | APPROVED BY | Tangshan | QRA BY | |
|-----------------|----------|-------------------|--------|--------------------|----------|---------------|--|

SPECIFICATION FOR APPROVAL

| | | | | | |
|---|------------|----------------|--------|--------------|--------------|
| CUSTOMER | | Eltech | | CLS DWG. NO. | Rev |
| | | | | CE1-5A0919 | A |
| CUSTOMER'S PART NO/DWG NO. | | DESCRIPTION | | DATE | |
| | | SL0810T-102K-N | | 2015/11/6 | |
| (1)MECHANICAL ASSEMBLY | | | | | |
| | | | | A | 8.7±0.5 m/m |
| | | | | B | 12.0±1.0 m/m |
| | | | | C | 25.0±5.0 m/m |
| | | | | D | 18.0±5.0 m/m |
| | | | | E | 5.0±0.8 m/m |
| | | | | F | 0.65±0.1 m/m |
| | | | | G | m/m |
| | | | | H | m/m |
| | | | | I | m/m |
| | | | | J | m/m |
| (2)ELECTRICAL REQUIREMENTS | | | | (3)SCHEMATIC | |
| L | 1.0±10% mH | TEST FREQUENCY | 252KHZ | 1V | |
| RDC | 2.1max Ω | | | | |
| IDC | 0.3max A | TEST FREQUENCY | 1KHZ | 1V | |
| Q | 40.0min | TEST FREQUENCY | 252KHZ | 1V | |
| SRF | 1.0min MHZ | | | | |
| Irms | 0.55max A | TEST FREQUENCY | | ΔT ≤ 40°C | |
| | | | | | |
| (4)TEST INSTRUMENTS | | | | | |
| <p>*16502 (RDC) *HP4284A+42841A (L, IDC, Irms) *HP4285A(Q, SRF)</p> <p>*Storage Temperature: Under 25 °C ,Humidity < 75% RH(6 Month) * Operating temperature -25°C to +85°C</p> | | | | | |
| NOTE: | | | | APPROVED BY | |
| *Solder:Sn99.3Cu0.7 | | | | Tangshan | |
| *EPOXY:FK661-9 | | | | CHECKED BY | |
| *TUBE:9φ Black UL | | | | Liukan | |
| * The casing need to be stamped with the words "102K" in white, to improve in the process of mass production | | | | DRAWN BY | |
| *IDC:L drop 10%max | | | | Jiusheng | |
| *The current shall not exceed the specified one when using this part. | | | | | |



TEST DATA FOR PREPRODUCTION SAMPLES

| | | | | | | | |
|--------------------------------------|----------|--------------|----------|-----------------------|--------------|--------------|-----------------------|
| CUSTOMER | | | | | | CLS DWG. NO. | Rev |
| Eltech | | | | | | CE1-5A0919 | A |
| CUSTOMER'S PART NO./DWG.NO | | | | DESCRIPTION | | DATE | |
| | | | | SL0810T-102K-N | | 2015/11/6 | |
| | | | | | | QUANTITY | PCS. |
| MEAS. ITEM | | L mH | RDC Ω | IDC mA | Q | SRF MHZ | I _{rms} A |
| SPEC | CUSTOMER | | | | | | |
| | SUGGEST | 1.0±10% | 2.1max | 0.3max | 40.0min | 1.0min | 0.55max |
| TEST FREQ. | | 252KHZ 1V | | 1KHZ 1V | 252KHZ 1V | | ΔT ≤ 40°C |
| 1 | | 1.00 | 1.44 | OK | 51.20 | 1.50 | OK |
| 2 | | 1.00 | 1.47 | OK | 51.30 | 1.50 | OK |
| 3 | | 1.00 | 1.46 | OK | 50.40 | 1.50 | OK |
| 4 | | 1.00 | 1.46 | OK | 52.80 | 1.60 | OK |
| 5 | | 0.99 | 1.46 | OK | 51.20 | 1.50 | OK |
| 6 | | 1.00 | 1.45 | OK | 52.30 | 1.50 | OK |
| 7 | | 0.98 | 1.45 | OK | 50.40 | 1.60 | OK |
| 8 | | 0.99 | 1.46 | OK | 52.80 | 1.50 | OK |
| 9 | | 1.00 | 1.45 | OK | 49.70 | 1.60 | OK |
| 10 | | 1.00 | 1.45 | OK | 51.40 | 1.60 | OK |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| \bar{X} | | 1.00 | 1.46 | | 51.35 | 1.54 | |
| R | | 0.02 | 0.03 | | 3.10 | 0.10 | |
| CUSTOMER SAMPLE | | | | | | | |
| TEST CONDITION: TEMP. 25 °C R.H. 65% | | | | | | APPROVED BY | |
| | | | | | | Tangshan | |
| | | | | | | CHECKED BY | |
| | | | | | | Liukan | |
| | | | | | | DRAWN BY | |
| | | | | | | Jiusheng | |



TEST DATA FOR PREPRODUCTION SAMPLES

| | | | | | | | |
|--------------------------------------|----------|----------|----------|-----------------------|----------|--------------|----------|
| CUSTOMER | | | | | | CLS DWG. NO. | Rev |
| Eltech | | | | | | CE1-5A0919 | A |
| CUSTOMER'S PART NO./DWG.NO | | | | DESCRIPTION | | DATE | |
| | | | | SL0810T-102K-N | | 2015/11/6 | |
| | | | | | | QUANTITY | PCS. |
| MEAS. ITEM | | A m/m | B m/m | C m/m | D m/m | E m/m | F m/m |
| SPEC | CUSTOMER | | | | | | |
| | SUGGEST | 8.7±0.5 | 12.0±1.0 | 25.0±5.0 | 18.0±5.0 | 5.0±0.8 | 0.65±0.1 |
| TEST | | | | | | | |
| FREQ. | | | | | | | |
| 1 | | 8.63 | 11.20 | 25.65 | 18.62 | 4.99 | 0.63 |
| 2 | | 8.57 | 11.23 | 25.31 | 19.38 | 4.92 | 0.64 |
| 3 | | 8.61 | 11.26 | 24.96 | 18.48 | 5.17 | 0.63 |
| 4 | | 8.62 | 11.30 | 24.88 | 18.38 | 5.01 | 0.63 |
| 5 | | 8.63 | 11.43 | 25.21 | 18.25 | 5.23 | 0.65 |
| 6 | | 8.60 | 11.26 | 25.18 | 18.70 | 5.09 | 0.64 |
| 7 | | 8.57 | 11.50 | 24.89 | 18.36 | 5.02 | 0.63 |
| 8 | | 8.57 | 11.53 | 24.92 | 18.52 | 4.97 | 0.64 |
| 9 | | 8.63 | 11.41 | 25.03 | 18.76 | 4.95 | 0.63 |
| 10 | | 8.62 | 11.30 | 25.90 | 19.12 | 5.03 | 0.62 |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| \bar{X} | | 8.61 | 11.34 | 25.19 | 18.66 | 5.04 | 0.63 |
| R | | 0.06 | 0.33 | 1.02 | 1.13 | 0.31 | 0.03 |
| CUSTOMER SAMPLE | | | | | | | |
| TEST CONDITION: TEMP. 25 °C R.H. 65% | | | | | | APPROVED BY | |
| | | | | | | Tangshan | |
| | | | | | | CHECKED BY | |
| | | | | | | Liukan | |
| | | | | | | DRAWN BY | |
| | | | | | | Jiusheng | |



5. MATERIAL LIST :

| ITEM | PART | DESCRIPTION | TEMP | SUPPLIERS | UL NO. |
|------|--------|-----------------------|-------|------------------------|---------|
| 1 | WIRE | 2SFBW | 180°C | JUNG SHING OR EQUIV | E174837 |
| 2 | CORE | FERRITE | | CHENZHOU OR EQUIV | |
| 3 | PIN | 0.65φ*26*18mm Cp wire | | MINGTONG OR EQUIV | |
| 4 | Solder | Sn99.3Cu0.7 | | QIANDAO OR EQUIV | |
| 5 | EPOXY | FK661-9 | | FUHUI OR EQUIV | |
| 6 | TUBE | 9φ Black UL | | XINGQI OR EQUIV | |

| | | | | | | |
|----------|------------|-------------|------------|----------------|------|-----------|
| DRAWN BY | CHECKED BY | APPROVED BY | CUSTOMER : | Eltech | DATE | 2015/11/6 |
| Jiusheng | Liukan | Tangshan | PART NO : | | REV | A |
| | | | ISSUE NO : | SL0810T-102K-N | RACE | |



1-1 Mechanical Performance

| No | Item | Specification | Test Method |
|-------|-----------|---|---|
| 1-1-1 | Vibration | Appearance: No damage L change: within±10% | Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs |

1-2 Environmental Performance

| No | Item | Specification | Test Method | | | | | | | | | | | | | | | |
|-------|---------------------|---|---|------|------------------|------------|---|-------|----|---|------|---|---|------|----|---|------|---|
| 1-2-1 | Temperature Cycle | Appearance: No damage L change: within±10% | One cycle: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Time (min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25±3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25±2</td> <td>3</td> </tr> <tr> <td>3</td> <td>85±3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25±2</td> <td>3</td> </tr> </tbody> </table> Total: 100cycles Measured after exposure in the room condition for 24hrs | Step | Temperature (°C) | Time (min) | 1 | -25±3 | 30 | 2 | 25±2 | 3 | 3 | 85±3 | 30 | 4 | 25±2 | 3 |
| Step | Temperature (°C) | Time (min) | | | | | | | | | | | | | | | | |
| 1 | -25±3 | 30 | | | | | | | | | | | | | | | | |
| 2 | 25±2 | 3 | | | | | | | | | | | | | | | | |
| 3 | 85±3 | 30 | | | | | | | | | | | | | | | | |
| 4 | 25±2 | 3 | | | | | | | | | | | | | | | | |
| 1-2-2 | Humidity Resistance | | Temperature: 40±2°C Relative Humidity: 90 ~ 95% Time: 1000hrs Measured after exposure in the room condition for 24hrs | | | | | | | | | | | | | | | |
| 1-2-3 | Heat Life | | Temperature: 85±3°C Relative Humidity: 0% Applied Current: Rated Current Time: 1000hrs Measured after exposure in the room condition for 24hrs | | | | | | | | | | | | | | | |
| 1-2-4 | Cold Resistance | | Temperature: -25±3°C Relative Humidity: 0% Time: 1000hrs Measured after exposure in the room condition for 24hrs | | | | | | | | | | | | | | | |

WIRE



OBMW2
Magnet Wire - Component

September 8, 2000

JUNG SHING WIRE CO LTD
231 CHUNG CHENG RD, SEC 3 JEN-TEH HSIANG, TAINAN
HSIEN TAIWAN

E174837

| Mtl Dsg | Mark Dsg | Coat Typ | | ANSI Type | Temp Class |
|-------------|----------|--------------------|--------------------|-----------|------------|
| | | BC | OC | | |
| AIW | — | Polyamideimide | — | MW81-C | 220 |
| CFUEWB | — | Polyurethane | — | MW75C | 130 |
| EIAIW | — | Polyesterimide | Polyamideimide | MW35C | 200 |
| EILOCKY | — | Polyesterimide | Polyamide | — | 180 |
| EILOCKW | — | Polyesterimide | Modified Epoxy | — | 200 |
| EIW | — | Polyesterimide | — | — | 220 |
| EIW-2 | — | Polyesterimide | — | MW74-C | 200 |
| FL.EILOCKY | — | Modified Polyester | Polyamide | — | 155 |
| LSFFW | — | Polyurethane | — | MW79-C | 155 |
| LSUEW | — | Polyurethane | — | — | 130 |
| PEW | — | Polyester | — | — | 155 |
| PEY | — | Polyester | Nylon | MW24-C | 155 |
| SF.FLW | — | Modified Polyester | — | MW26C | 155 |
| SF.EIW | — | Polyesterimide | — | MW77C | 180 |
| SF.BY@ | — | Modified Polyester | Nylon | MW27-C | 155 |
| SF.FLY@ | — | Modified Polyester | Nylon | MW27-C | 155 |
| SF.BLOCKBS | — | Modified Polyester | Modified Polyamide | — | 155 |
| SF.EILOCKY# | — | Polyesterimide | Polyamide | — | 180 |
| SF.EILOCKBS | — | Polyesterimide | Modified Polyamide | — | 180 |
| SF.BW@ | — | Modified Polyester | — | MW26C | 155 |
| SFFW | — | Polyurethane | — | MW79 | 155 |

287806002

Page 1 of 2

A not-for-profit organization
dedicated to public safety and
committed to quality service

| Mtl Dsg | Mark Dsg | Coat Typ | | ANSI Type | Temp Class |
|---------|----------|--------------|-----------|-----------|------------|
| | | BC | OC | | |
| SFFY | — | Polyurethane | Polyamide | MW80C | 155 |
| UEW-1 | — | Polyurethane | — | MW2-C | 105 |
| UEW-2 | — | Polyurethane | — | — | 130 |
| UEW-4 | — | Polyurethane | — | MW75C | 130 |
| UEY | — | Polyurethane | Nylon | MW28-C | 130 |
| UEY-2 | — | Polyurethane | Polyamide | MW28-C | 130 |

@ - May be suffixed by LZ; # - May be suffixed by LZ, EL or LZL.
LZ - Signifies magnet wires twisted together; EL - signifies base coated magnet wire laid parallel with top coat applied overall; LZL - signifies base coated magnet wire twisted together and covered with top coat overall.

Marking: Company name or trademarks or 榮星電線, material designation or marked designation on packaged or reel, and Recognized Component Mark.

See General Information Preceding These Recognitions
For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

287806002

Page 2 of 2

OBMW2/E174837
September 8, 2000