

## 键合银线 (SL3) 规格书

### 1. 目的

为满足客户要求，对应其参考资料式样书，提供我公司键合银丝书面化规范，并纳入我公司技术标准。

### 2. 范围

本规格书适用于矽格瑪科技有限公司生产销售之 SL3 型号封装银线。

### 3. 线材的外观、品质及化学成分

3.1 线材的外观：反光均匀、绕丝整齐，线材表面光亮、无指痕、油污和锈蚀；无拉伸润滑剂痕迹、颗粒附加物和其他污染。

The good surface: Homogeneous reflecting light, good spooling, shiny wire surface, no finger print and greasy dirt and rust damage.

3.2 线材表面应无超过线径 5% 的刻痕、凹坑、划伤、裂纹、凸起、打折和其它降低器件使用寿命的缺陷。

On the wire surface, There are no traces of lubricant, particles and other pollution, sinking, protrusion, scratch, crack, kings whose diameter are less than 5% of gold wires and no other defects cause less component's life.

3.3 线材的化学成分：The chemical composition for dopant wires.

Ag: >88%、Au + Pd: 11.5%

### 4. 线材技术参数资料：

如附件产品参数表

### 5. 包装

5.1 检验合格的线材放入塑料盒内，塑料盒具有一定强度，并有防尘作用。

5.2 塑料盒上标签内容：始端胶带颜色、线材纯度、型号、批号、直径、单轴长度、断裂负荷、延伸率、生产日期、公司英文名称。

5.3 以每轴为一个单位装进一个塑料袋，依照需要抽真空封好口；以每 20 轴一个单位放进小纸盒中，小纸盒用塑料气泡包裹，整齐排在纸箱内，盒与箱之间加整齐的海绵或加泡沫塞紧。

### 6. 运输

搬运和装卸时应注意轻拿轻放，以防产品碰伤。

### 7. 使用注意事项：

## 線材使用圖：

左手按住底部包裝盒  
Press the bottom of pack with left hand

右手按住底部包裝盒  
Press the bottom of pack with right hand



注意不要碰到線材  
Beware of touching the wire surface

輕輕打開包裝盒  
Open the pack carefully

右手拿住線軸法蘭邊,輕取下线軸 Take hold of the flange with right hand and take out spools

線材始端為綠色  
The bonding wire start at green



注意不要碰到材料  
Beware of touching the wire surface

用鑷子小心地揭掉始端膠帶 Remove start adhesive tape with tweezer carefully

## 8. 存放

嚴禁同活性物質及潮濕性材料混裝在一起

存放溫度: 16°C—30°C, 濕度: 20%—65%

Gold wires must be stored in a stable and clean environment. The best temperature and humidity should be: Temp:16—30°C; Humidity:20% – 65%.

## 9. 保質期

品質保證期限: 從生產之日起一年。

Storage period: One year.

# Au-Ag Alloy Wire Data Sheet

Supplier : Sigma Material Technology Inc.

Type : SL-3 Au-Ag Alloy wire

Ver : 2.4

| General Properties                            |  | PROPERTY ITEM                              |            | SPECIFICATION                |                    |                    |                    |      |        | TEST METHOD                          |              |
|-----------------------------------------------|--|--------------------------------------------|------------|------------------------------|--------------------|--------------------|--------------------|------|--------|--------------------------------------|--------------|
|                                               |  | Wire Diameter Φ                            | Mil        | 0.7                          | 0.8                | 0.9                | 1.0                | 1.2  | 1.25   | 1.5                                  |              |
|                                               |  |                                            | um         | 18±1                         | 20±1               | 23±1               | 25±1               | 30±1 | 31.5±1 | 38±1                                 |              |
|                                               |  | Breaking Load (gf)                         | Room Temp. | >5.0<br>(5.0-9.0)            | >5.0<br>(5.0-11.0) | >7.0<br>(7.0-14.0) | >9.0<br>(9.0-15.0) | -    | -      | -                                    | Tensile test |
|                                               |  | Elongation (%)                             | Room Temp. | 6.0-13.0                     | 8.0-14.0           | 9.0-18.0           | 12.0-22.0          | -    | -      | -                                    | Tensile test |
|                                               |  | Loop Height (mil)                          |            | 8.0-18.0 (For Ref.)          |                    |                    |                    |      |        | -                                    |              |
|                                               |  | Loop Length (mil)                          |            | Max 230 (For Ref.)           |                    |                    |                    |      |        | -                                    |              |
| Physical Properties<br>(For Reference)        |  | HAZ (mil)                                  |            | 4.0-9.0                      |                    |                    |                    |      |        | -                                    |              |
|                                               |  | Free AirBall Hardness                      |            | 45-55 (Hv, 1.0 mil standard) |                    |                    |                    |      |        | -                                    |              |
|                                               |  | Density (g/cm³)                            |            | 10.97                        |                    |                    |                    |      |        | Density meter of Alchimedes's Method |              |
|                                               |  | Specific Resistivity @R T (μΩcm)           |            | 3.35                         |                    |                    |                    |      |        | Volt Ammeter                         |              |
|                                               |  | Fusing Current / A<br>( wire length 10 mm) |            | 0.35                         | 0.41               | 0.49               | 0.56               | -    | -      | -                                    | Volt Ammeter |
|                                               |  | Melting Point (°C)                         |            | 1010                         |                    |                    |                    |      |        | Melting Point Meter                  |              |
|                                               |  | With Coating (Y/N)                         |            | N                            |                    |                    |                    |      |        | -                                    |              |
|                                               |  | Storage (month)                            |            | 12 months                    |                    |                    |                    |      |        | -                                    |              |
| Ag Purity (%)                                 |  |                                            |            | >88%                         |                    |                    | TEST METHOD        |      |        |                                      |              |
| Element Content (ppm)<br>(Match with C of C ) |  | Au + Pd                                    |            | 11.5%                        |                    |                    | ICP                |      |        |                                      |              |
|                                               |  | Other                                      |            | <100PPM                      |                    |                    |                    |      |        |                                      |              |
|                                               |  |                                            |            |                              |                    |                    |                    |      |        |                                      |              |

Certified by: Kevin Date: May. 29, 2015