# **CHIPQUIK®**

Datasheet revision 1.6

www.chipquik.com

SMDSWLF.020 2OZ

# Solder Wire SAC305 No-Clean with 2.2% Flux Core 2oz Spool

#### **Product Highlights**

No-Clean Water-Washable Synthetic Flux Core

The clear, non-corrosive, non-conductive residue is meant to be left on the board. Residues that do remain are water soluble if you want to remove them. Clean with hot water at 60°C (140°F) minimum.

2.2% flux core Halogen content: None

RoHS II and REACH compliant

| Specifications       |                                   |
|----------------------|-----------------------------------|
| Alloy:               | Sn96.5/Ag3.0/Cu0.5                |
| Wire Diameter:       | 0.020" (0.5mm)                    |
| Flux Type:           | No-Clean Water-Washable Synthetic |
| Flux Classification: | ROL0                              |
| Melting Point:       | 217-220°C (423-428°F)             |
| Packaging:           | 2 oz spool                        |

#### **Test Results**

| Test J-STD-004 or other requirements as stated            | Test Requirement                                      | Result   |
|---|---|--|
| Copper Mirror   | IPC-TM-650: 2.3.32                                    | L: No breakthrough   |
| Corrosion   | IPC-TM-650: 2.6.15                                    | L: No corrosion  |
| Quantitative Halides                                      | IPC-TM-650: 2.3.28.1                                  | L: <0.5%   |
| Electrochemical Migration                                 | IPC-TM-650: 2.6.14.1                                  | L: <1 decade drop (No-clean)   |
| Surface Insulation Resistance 85°C,<br>85% RH @ 168 Hours | IPC-TM-650: 2.6.3.7                                   | L: ≥100MΩ (No-clean)   |
| Visual  | IPC-TM-650: 3.4.2.5                                   | Clear and free from precipitation  |
| Conflict Minerals Compliance                              | Electronic Industry Citizenship<br>Coalition (EICC)   | Compliant  |
| REACH Compliance  | Articles 33 and 67 of Regulation (EC)<br>No 1907/2006 | Contains no substance >0.1% w/w that<br>is listed as a SVHC or restricted for<br>use in solder materials |

**Conforms to the following Industry Standards:** J-STD-004B, Amendment 1 (Solder Fluxes): Yes J-STD-006C, Amendments 1 & 2 (Solder Alloys and Fluxed/Non-Fluxed Solders): Yes RoHS 2 Directive 2011/65/EU: Yes

# ChipQuik® Solder Wire Orderable Part Numbers:

| Flux Core           | Alloy         | Melting Point         | Diameter       | Size           | Orderable Part Number |
|---------------------|---------------|-----------------------|----------------|----------------|-----------------------|
|                     |               |                       | .015" (0.38mm) | 100g (3.5oz)   | SMDSW.015 100g        |
|                     |               |                       |                | 0.4 oz         | SMDSW.020 .4OZ        |
|                     |               |                       |                | 1 oz           | SMDSW.020 1OZ         |
|                     |               |                       | .020" (0.5mm)  | 2 oz           | SMDSW.020 2OZ         |
|                     |               |                       |                | 4 oz           | SMDSW.020 4OZ         |
|                     |               |                       |                | 1/2 <b>I</b> b | SMDSW.020 8OZ         |
| Sn63/Pb37           | Sn63/Pb37     | 183°C (361°F)         |                | 1 <b>I</b> b   | SMDSW.020 1LB         |
|                     |               |                       |                | 0.7 oz         | SMDSW.031.70Z         |
|                     |               |                       |                | 1 oz           | SMDSW.031 1OZ         |
|                     |               |                       |                | 2 oz           | SMDSW.031 2OZ         |
|                     |               |                       | .031" (0.8mm)  | 4 oz           | SMDSW.031 4OZ         |
|                     |               |                       |                | 1/2 <b>b</b>   | SMDSW.031 8OZ         |
|                     |               |                       |                | 1 <b>I</b> b   | SMDSW.031 1LB         |
|                     |               |                       | .015" (0.38mm) | 100g (3.5oz)   | SMD2SW.015 100g       |
|                     |               |                       |                | 0.4 oz         | SMD2SW.020 .4OZ       |
|                     |               |                       |                | 1 oz           | SMD2SW.020 10Z        |
| No-Clean Water-     |               |                       | .020" (0.5mm)  | 2 oz           | SMD2SW.020 20Z        |
| Washable Synthetic  |               |                       | .020 (0.5000)  | 4 oz           | SMD2SW.020 4OZ        |
| Flux Core 2.2%      |               |                       |                | 1/2 <b>I</b> b | SMD2SW.020 80Z        |
|                     | Sn60/Pb40     | 183-188°C (361-370°F) |                | 1 <b>b</b>     | SMD2SW.020 1LB        |
| (Except .006" and   |               |                       |                | 0.7 oz         | SMD2SW.031 .7OZ       |
| .008" diameter wire |               |                       | .031" (0.8mm)  | 1 oz           | SMD2SW.031 10Z        |
| which are 1.2%)     |               |                       |                | 2 oz           | SMD2SW.031 20Z        |
|                     |               |                       |                | 4 oz           | SMD2SW.031 4OZ        |
|                     |               |                       |                | 1/2 <b>I</b> b | SMD2SW.031 80Z        |
|                     |               |                       |                | 1 <b>b</b>     | SMD2SW.031 1LB        |
|                     |               |                       | .015" (0.38mm) | 100g (3.5oz)   | SMD3SW.015 100g       |
|                     |               |                       | .020" (0.5mm)  | 0.4 oz         | SMD3SW.020 .4OZ       |
|                     |               |                       |                | 1 oz           | SMD3SW.020 10Z        |
|                     |               |                       |                | 2 oz           | SMD3SW.020 20Z        |
|                     |               |                       |                | 4 oz           | SMD3SW.020 40Z        |
| Sn62/F              |               |                       |                | 1/2 <b>I</b> b | SMD3SW.020 80Z        |
|                     | Sn62/Pb36/Ag2 | 179°C (354°F)         |                | 1 <b>I</b> b   | SMD3SW.020 1LB        |
|                     |               |                       | .031" (0.8mm)  | 0.7 oz         | SMD3SW.031 .70Z       |
|                     |               |                       |                | 1 oz           | SMD3SW.031 10Z        |
|                     |               |                       |                | 2 oz           | SMD3SW.031 2OZ        |
|                     |               |                       |                | 4 oz           | SMD3SW.031 4OZ        |
|                     |               |                       |                | 1/2 <b>I</b> b | SMD3SW.031 8OZ        |
|                     |               |                       |                | 1 <b>b</b>     | SMD3SW.031 1LB        |

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### ChipQuik® Solder Wire Orderable Part Numbers:

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| Flux Core                              | Alloy               | Melting Point         | Diameter        | Size             | Orderable Part Number |
|--|---------------------|-----------------------|-----------------|------------------|-----------------------|
|  |                     |                       | .006" (0.15mm)  | 50g (1.8oz)      | SMDSWLF.006 50g       |
|  |                     |                       | .008" (0.20mm)  | 50g (1.8oz)      | SMDSWLF.008 50g       |
|  |                     |                       |                 | 0.3 oz           | SMDSWLF.015.3OZ       |
|  |                     |                       |                 | 1 oz             | SMDSWLF.015 1OZ       |
|  |                     | .015" (0.38mm)        | 2 oz            | SMDSWLF.015 2OZ  |                       |
|  |                     |                       | 4 oz            | SMDSWLF.015 4OZ  |                       |
|  |                     |                       | 1/2 <b>l</b> b  | SMDSWLF.015 8OZ  |                       |
|  |                     |                       | 1 <b>I</b> b    | SMDSWLF.015 1LB  |                       |
|  | Sn96.5/Ag3.0/Cu0.5  |                       |                 | 0.4 oz           | SMDSWLF.020.4OZ       |
|  |                     | 217-220°C (423-428°F) |                 | 1 oz             | SMDSWLF.020 1OZ       |
|  | 31190.3/Ag3.0/040.3 | 217-220 C (423-420 F) | .020" (0.5mm)   | 2 oz             | SMDSWLF.020 2OZ       |
|  |                     | .020 (0.5mm)          | 4 oz            | SMDSWLF.020 4OZ  |                       |
|  |                     |                       |                 | 1/2 <b>I</b> b   | SMDSWLF.020 8OZ       |
|  |                     |                       |                 | 1 <b>l</b> b     | SMDSWLF.020 1LB       |
|  |                     |                       |                 | 0.7 oz           | SMDSWLF.031.70Z       |
|  |                     |                       |                 | 1 oz             | SMDSWLF.031 1OZ       |
| No-Clean Water-                        |                     |                       | .031" (0.8mm)   | 2 oz             | SMDSWLF.031 2OZ       |
| Washable Synthetic                     |                     |                       | .031 (0.01111)  | 4 oz             | SMDSWLF.031 4OZ       |
| Flux Core 2.2%                         |                     |                       |                 | 1/2 <b>I</b> b   | SMDSWLF.031 8OZ       |
|  |                     |                       |                 | 1 <b>I</b> b     | SMDSWLF.031 1LB       |
| (Except .006" and                      |                     |                       | .012" (0.3mm)   | 100g (3.5oz)     | SMD2SWLF.012 100g     |
| .008" diameter wire<br>which are 1.2%) |                     |                       |                 | 0.3 oz           | SMD2SWLF.015.30Z      |
| which are 1.2%)                        |                     |                       | .015" (0.38mm)  | 1 oz             | SMD2SWLF.015 1OZ      |
|  |                     |                       |                 | 2 oz             | SMD2SWLF.015 2OZ      |
|  |                     |                       |                 | 4 oz             | SMD2SWLF.015 4OZ      |
| Sn99.3/Cu0.7                           |                     |                       |                 | 1/2 <b>I</b> b   | SMD2SWLF.015 8OZ      |
|  |                     | 227°C (441°F)         |                 | 1 <b>b</b>       | SMD2SWLF.015 1LB      |
|  |                     |                       | .020" (0.5mm)   | 0.4 oz           | SMD2SWLF.020 .4OZ     |
|  |                     |                       |                 | 1 oz             | SMD2SWLF.020 10Z      |
|  | Sn99.3/Cu0.7        |                       |                 | 2 oz             | SMD2SWLF.020 2OZ      |
|  |                     |                       |                 | 4 oz             | SMD2SWLF.020 4OZ      |
|  |                     |                       |                 | 1/2 <b>I</b> b   | SMD2SWLF.020 8OZ      |
|  |                     |                       | 1 <b>I</b> b    | SMD2SWLF.020 1LB |                       |
|  |                     |                       | .031" (0.8mm)   | 0.7 oz           | SMD2SWLF.031.7OZ      |
|  |                     |                       |                 | 1 oz             | SMD2SWLF.031 10Z      |
|  |                     |                       |                 | 2 oz             | SMD2SWLF.031 2OZ      |
|  |                     |                       |                 | 4 oz             | SMD2SWLF.031 4OZ      |
|  |                     |                       |                 | 1/2 <b>l</b> b   | SMD2SWLF.031 8OZ      |
|  |                     |                       |                 | 1 <b>I</b> b     | SMD2SWLF.031 1LB      |
|  | Sn42/Bi57/Ag1       | 138°C (281°F)         | .030" (0.762mm) | 32 feet          | SMDSWLTLFP32          |
| Solid Wire                             | <b>I</b> n100       | 157°C (315°F)         | .031" (0.8mm)   | 10 feet          | SMDIN100              |
| (No F <b>l</b> ux)                     | In52/Sn48           | 118°C (244°F)         | .031" (0.8mm)   | 10 feet          | SMDIN52SN48           |
|  | In97/Ag3            | 143°C (289°F)         | .031" (0.8mm)   | 10 feet          | SMDIN97AG3            |