

QuickLogic® ArcticLink® III VX/BX CSSPs – PCB Footprint and Solder Profile

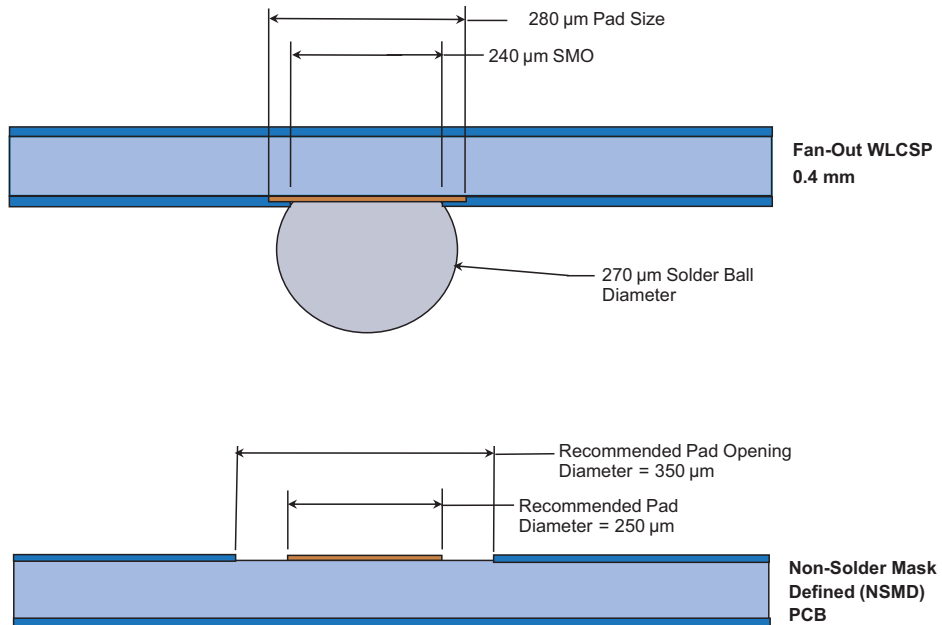


••••• QuickLogic Application Note 103

PCB Footprint

Figure 1 illustrates the recommended PCB footprint for the Fan-Out-WLCSP of the ArcticLink II VX/BX family of Customer Specified Standard Products (CSSPs).

Figure 1: Recommended PCB Footprint for Fan-Out-WLCSP with 0.4 mm Pitch



NOTE: These rules must be preverified with the PCB fabrication and board-mount vendors.

Reflow Profile

The conditions shown in **Table 1** are consistent with IPC/JEDEC J-STD-020, Moisture/Reflow Sensitivity Classification for Nonhermetic Solid State Surface Mount Devices, and QuickLogic internal qualification. However, do not interpret this as the recommended profile for board mounting. Optimize the board mounting reflow profile based specifically on unique conditions such as board design, solder paste, etc. The conditions must be within (less severe than) the conditions used for component qualifications shown in **Table 1**.

Figure 2 illustrates the Pb-free component preconditioning reflow profile.

Figure 2: Pb-Free Component Preconditioning Reflow Profile

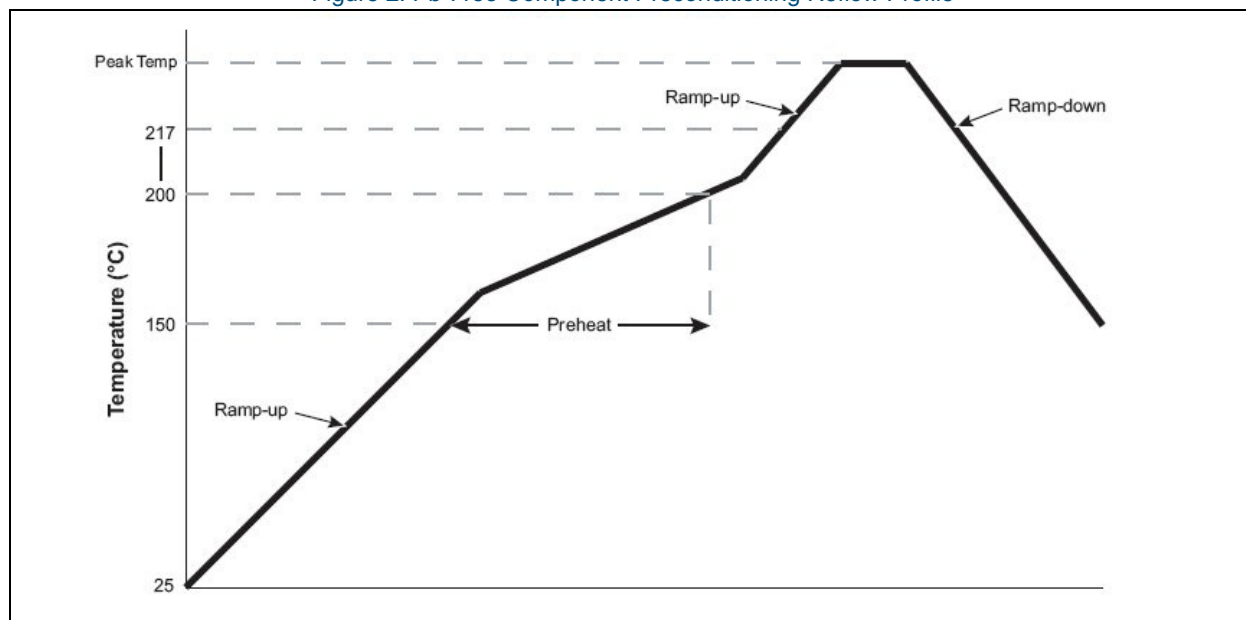


Table 1 shows the Pb-free component preconditioning reflow profile.

Table 1: Pb-Free Component Preconditioning Reflow Profile

Profile Feature	Profile Conditions
Ramp-up rate	3°C/sec. max.
Preheat time (from 150°C to 200°C)	60 to 120 sec.
Time maintained above 217°C	60 to 150 sec.
Peak temperature	260°C
Time within 5°C of actual peak	30sec.
Ramp-down rate	6°C/sec. max.
Time from 25°C to peak temperature	8 min. max.

NOTE: All temperatures are measured on the package body surface.

Moisture Sensitivity Level

All WLCSP devices are Moisture Sensitivity Level 1.

Table 2: Solder Composition

Product	Pin Count	Package Type	Solder Ball Composition
ArcticLink III VX/BX	120	Fan-Out-WLCSP	Sn96.5-Ag3.0-Cu0.5

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Revision History

Revision	Date	Originator and Comments
A	November 2012	K.H. The and Kathleen Bylsma

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