

Generic LibreSilicon process HKUST (NFF)

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January 28, 2018

Abstract

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This is the specification of the free silicon manufacturing standard for manufacturing the ls180nm¹ standard logic cells and related free technology nodes from the LibreSilicon project.

For further clarification consult the complete documentation of the process.

¹<https://github.com/leviathanch/ls180nm>

Process Flow of Lanceville Technologies LibreSilicon 180nm

- Project: LibreSilicon 180nm
- Name: Lanceville Technologies Group
- Substrate: P-Substrate silicon wafer <100>
- Date: January 28, 2018

SiO2																																									
Si (p-type)	<table><tr><th>Wafer Cleanliness</th><th>Step Number</th><th>Equipment</th><th>Location</th><th>Cleanliness</th><th>Process</th><th>Requirements</th></tr><tr><td>Clean</td><td>0.1</td><td>A3: Sulfuric Cleaning</td><td>P201000</td><td>Clean</td><td>Initial Clean</td><td>H2SO4 + H2O2, 10mins, 120C</td></tr><tr><td>Clean</td><td>0.2</td><td>A2: HF:H2O (1:50)</td><td>P201000</td><td>Clean</td><td>HF dip</td><td>1 min</td></tr><tr><td>Clean</td><td>0.3</td><td>Spin Dryer-A</td><td>P201000</td><td>Clean</td><td>Dry the wafer automatically</td><td></td></tr><tr><td>Clean</td><td>0.4</td><td>??</td><td>??</td><td>??</td><td>Silicon dioxide growth</td><td>1000nm</td></tr></table>	Wafer Cleanliness	Step Number	Equipment	Location	Cleanliness	Process	Requirements	Clean	0.1	A3: Sulfuric Cleaning	P201000	Clean	Initial Clean	H2SO4 + H2O2, 10mins, 120C	Clean	0.2	A2: HF:H2O (1:50)	P201000	Clean	HF dip	1 min	Clean	0.3	Spin Dryer-A	P201000	Clean	Dry the wafer automatically		Clean	0.4	??	??	??	Silicon dioxide growth	1000nm					
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