

## ITEM OPPORTUNITY SYNOPSIS

<b>Scouting Number:</b>	2024-180
<b>Name of the item to be scouted:</b>	Doping Services for Silicon Wafers
<b>State item to be used in:</b>	Massachusetts
<b>Describe the Item:</b>	
<p>Please describe the item application/the end use of the item.</p>	<p>We are looking for doping services for silicon wafers. The wafers will have SiN and SiO<sub>2</sub> on them. We are interested in either implant or diffusion (either solid source or POCl<sub>3</sub>). If implant, we also need the drive in to be done. We only need phosphorous. We are not interested in academic labs since we want to only use a clean furnace. We prefer 3-inch round wafers, and 2-inch round is OK. Larger wafers are doable, but will require us to make changes to the rest of the process. Since our order is small, we can't go to a TSMC for example. We can supply the wafers or they can be made by vendor.</p>
<b>Supplier Information:</b>	
<b>Type of Supplier Being Sought (select from the list below):</b>	
Manufacturer	x
Contract Manufacturer	
Distributor	
Other (Please Specify)	
<b>Reason for Scouting Submission (select from the list below)</b>	
2nd Supplier	
Price	
Re-Shore	
Past supplier no longer available	
New Product Startup	x
BABA	
Other (Please Specify)	
<b>Summary of Technical Specifications and Performance Requirements:</b>	
<p>Describe the manufacturing processes (elaborate to provide as much detail as possible)</p>	<p>We will have patterned the silicon before the doping process. So, the wafers will have seen Plasma-enhanced chemical vapor deposition (PECVD) SiN deposition, photo, a dry etch, and PECVD oxide deposition on the backside (if diffusion is being used).</p>
<p>Provide dimensions / size / tolerances / performance specifications of the item</p>	<p>We are looking for a repeatable and clean process.</p>
<p>List required materials needed to make the product, including materials of product components, if applicable</p>	<p>See description above.</p>
Are there applicable certification requirements?	
Yes	
No	x
Please explain:	
Are there any applicable regulations that apply to the production of this item?	
Yes	
No	x
Please explain:	
Are there any other standards / requirements?	
Yes	
No	x
Please explain:	
<b>NAICS CODES:</b>	
NAICS 1	334413 Semiconductor and related device manufacturing
NAICS 2	
<b>Additional Comments:</b>	
Additional technical comments:	
<b>Volume and Pricing:</b>	
Estimated Potential Business Volume (i.e. #units per day, month, year):	Approximately 10 wafers/lot, and a lot every 3 weeks.
Estimated Target Price/Unit Cost Information:	TBD

**Delivery Requirements:**

When is it needed by? (Immediate, 30 days, 6 months, etc.)	As soon as possible
Describe packaging requirements (i.e. individually/group packaging, etc.)	Just to prevent breaking the wafers
Where will this item be shipped?	Lowell, MA

**Additional Comments:**

Is there other information you would like to include?	
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