

AMAT Centura Pronto Epi

<u>Wafer Specification</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Wafer Size	150mm			
Wafer Shape	-			

<u>Chamber Type / Location</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Position A	(PA) PRONTO ATMOSPHERIC EPI			
Position B	(PA) PRONTO ATMOSPHERIC EPI			
Position C	(PA) PRONTO ATMOSPHERIC EPI			
Position D	EMPTY			
Position E	EMPTY			
Position F	(CA) SINGLE SLOT COOLDOWN			

Customer Fab Options

<u>Electrical Requirements</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Line Voltage	480V WITH TRANSFORMER			
Line Frequency	60 HZ			
Line Amperage	600A			

<u>System Safety</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
CE Mark	NO			
EMO Switch Type	TURN TO RELEASE EMO ETI COMPLIANT			
EMO Guard Ring	INCLUDED			
System Labels	ENGLISH WITH CHINESE NON SIMPLIFIED			
EU Safety Manual Language	NOT APPLICABLE			

(A) - (PA) PRONTO ATMOSPHERIC

<u>Pronto Atmospheric Chamber</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Upper Dome Temperature CLC	YES			
SWmonitor Quartz Pyrometer Kit	YES			
Exhaust Inserts	QUARTZ INSERTS			
Susceptor	MESH NCP			
Brand	COVALENT MATERIALS			
Lower Liners	VENTED			
Susceptor Support Shaft	THK EPI NCP SUSCEPTOR SUPPORT SHAFT	40289249-00	Susceptor Shaft 150 mm 0200-28674	Note# 1
Tips	SILICON CARBIDE REMOVABLE TIPS			
Exhaust Deposit Reduction	NO	40289250-00	Rotation purge 5SLM	
Wafer Susceptor Lift Type	MOTORIZED LIFT			
Motorized Lift	YES			

(B) - (PA) PRONTO ATMOSPHERIC

<u>Pronto Atmospheric Chamber</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Upper Dome Temperature CLC	YES			
SWmonitor Quartz Pyrometer Kit	YES			
Exhaust Inserts	QUARTZ INSERTS			
Susceptor	MESH NCP			
Brand	COVALENT MATERIALS			
Lower Liners	VENTED			
Susceptor Support Shaft	THK EPI NCP SUSCEPTOR SUPPORT SHAFT	Part of 40289249-00	0200-28674	Note# 2
Tips	SILICON CARBIDE REMOVABLE			

(C) - (PA) PRONTO ATMOSPHERIC

<u>Pronto Atmospheric Chamber</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Upper Dome Temperature CLC	YES			
SWmonitor Quartz Pyrometer Kit	YES			
Exhaust Inserts	QUARTZ INSERTS			
Susceptor	MESH NCP			
Brand	COVALENT MATERIALS			
Lower Liners	VENTED			
Susceptor Support Shaft	THK EPI NCP SUSCEPTOR SUPPORT SHAFT	Part of 40289249-00	0200-28674 A B C	Note# 3
Tips	SILICON CARBIDE REMOVABLE TIPS			
Exhaust Deposit Reduction	NO	Part of 40289250-00	Rotation Purge	
Wafer Susceptor Lift Type	MOTORIZED LIFT			
Motorized Lift	YES			

(F) - (CA) SINGLE SLOT COOLDOWN

<u>(CA) Single Slot Cooldown Chamber</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Lift Actuator Type	MODIFIED DIRECT			

Gas Delivery Options

<u>Epi Gas Delivery Options</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Mixed Dopant 2	YES			
Fast Mixer Stabilization	YES			
Mixed Dopant 2 Ready	YES			
Gas Panel Assembly Type	STANDARD			
Gas Panel Exhaust	CHAMBER B-SIDE	40289263-00	Gas Panel NSR	
MFC	STEC Z500			
Pump Purge	YES			
Regulators and Transducers	REGULATORS AND TRANSDUCERS			
Gas Distribution Type	MULTIPLE LINE DROP			
Piezocon Ready	NO			
Piezocon Heater Jackets	NOT APPLICABLE			

Gasline Information

<u>Main Pallet</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Line 1 Process Gas	DOP 2			
Line 1 Cal Gas	H2			
Line 1 MFC Size	500 SCCM			
Line 2 Process Gas	DOP 1			
Line 2 Cal Gas	H2			
Line 2 MFC Size	500 SCCM			
Line 3 Process Gas	H2			
Line 3 Cal Gas	H2			
Line 3 MFC Size	20 SLM			
Line 4 Process Gas	H2			
Line 4 Cal Gas	H2			
Line 4 MFC Size	20 SLM			

<u>Pallet (A) - Pronto Atmospheric</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Line 1 Process Gas	H2			
Line 1 Cal Gas	H2			
Line 1 MFC Size	20 SLM N/O	40289252-00	Chamber slit purge 40SLM	
Line 2 Process Gas	H2			
Line 2 Cal Gas	H2			
Line 2 MFC Size	100 SLM N/O			
Line 3 Process Gas	HCL			
Line 3 Cal Gas	HCL			
Line 3 MFC Size	20 SLM			
Line 4 Process Gas	NONE			
Line 4 Cal Gas	NONE			
Line 4 MFC Size	NONE			
Line 5 Process Gas	NONE			
Line 5 Cal Gas	NONE			
Line 5 MFC Size	NONE			
Line 6 Process Gas	HCL			
Line 6 Cal Gas	HCL			
Line 6 MFC Size	3 SLM			
Line 7 Process Gas	MIX DOP 1 & 2			
Line 7 Cal Gas	H2			
Line 7 MFC Size	300 SCCM			
Line 8 Process Gas	HCL			
Line 8 Cal Gas	HCL			
Line 8 MFC Size	1 SLM			
Line 9 Process Gas	SIHCL3 (TCS)			
Line 9 Cal Gas	H2			
Line 9 MFC Size	30 SLM			
Line 10 Process Gas	AUX DOP			
Line 10 Cal Gas	H2			
Line 10 MFC Size	30 SCCM			
Line 11 Process Gas	NOT APPLICABLE			
Line 11 Cal Gas	NOT APPLICABLE			
Line 11 MFC Size	NOT APPLICABLE			
Chamber Inject Type	INNER/OUTER			

<u>Pallet (B) - Pronto Atmospheric</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Line 1 Process Gas	H2			
Line 1 Cal Gas	H2			
Line 1 MFC Size	20 SLM N/O	Part of 40289252-00	Chamber slit purge 40SLM	
Line 2 Process Gas	H2			
Line 2 Cal Gas	H2			
Line 2 MFC Size	100 SLM N/O			
Line 3 Process Gas	HCL			
Line 3 Cal Gas	HCL			
Line 3 MFC Size	20 SLM			
Line 4 Process Gas	NONE			
Line 4 Cal Gas	NONE			
Line 4 MFC Size	NONE			
Line 5 Process Gas	NONE			
Line 5 Cal Gas	NONE			
Line 5 MFC Size	NONE			
Line 6 Process Gas	HCL			
Line 6 Cal Gas	HCL			
Line 6 MFC Size	3 SLM			
Line 7 Process Gas	MIX DOP 1 & 2			
Line 7 Cal Gas	H2			
Line 7 MFC Size	300 SCCM			
Line 8 Process Gas	HCL			
Line 8 Cal Gas	HCL			
Line 8 MFC Size	1 SLM			
Line 9 Process Gas	SiHCL3 (TCS)			
Line 9 Cal Gas	H2			
Line 9 MFC Size	30 SLM			
Line 10 Process Gas	AUX DOP			
Line 10 Cal Gas	H2			
Line 10 MFC Size	30 SCCM			
Line 11 Process Gas	NOT APPLICABLE			
Line 11 Cal Gas	NOT APPLICABLE			
Line 11 MFC Size	NOT APPLICABLE			
Chamber Inject Type	INNER/OUTER			

<u>Pallet (C) - Pronto Atmospheric</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Line 1 Process Gas	H2			
Line 1 Cal Gas	H2			
Line 1 MFC Size	20 SLM N/O	Part of 40289252-00	Chamber slit purge 40SLM	
Line 2 Process Gas	H2			
Line 2 Cal Gas	H2			
Line 2 MFC Size	100 SLM N/O			
Line 3 Process Gas	HCL			
Line 3 Cal Gas	HCL			
Line 3 MFC Size	20 SLM			
Line 4 Process Gas	NONE			
Line 4 Cal Gas	NONE			
Line 4 MFC Size	NONE			
Line 5 Process Gas	NONE			
Line 5 Cal Gas	NONE			
Line 5 MFC Size	NONE			
Line 6 Process Gas	HCL			
Line 6 Cal Gas	HCL			
Line 6 MFC Size	3 SLM			
Line 7 Process Gas	MIX DOP 1 & 2			
Line 7 Cal Gas	H2			
Line 7 MFC Size	300 SCCM			
Line 8 Process Gas	HCL			
Line 8 Cal Gas	HCL			
Line 8 MFC Size	1 SLM			
Line 9 Process Gas	SiHCL3 (TCS)			
Line 9 Cal Gas	H2			
Line 9 MFC Size	30 SLM			
Line 10 Process Gas	AUX DOP			
Line 10 Cal Gas	H2			
Line 10 MFC Size	30 SCCM			
Line 11 Process Gas	NOT APPLICABLE			
Line 11 Cal Gas	NOT APPLICABLE			
Line 11 MFC Size	NOT APPLICABLE			
Chamber Inject Type	INNER/OUTER			

Mainframe

<u>Loadlock</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Loadlock Type	WIDE BODY			
Wafer Mapping	BASIC			
Cassette Platform Type	UNIVERSAL			
Cassette Type	FLUOROWARE PA182-60MB-06XX			
Front Panel	PAINTED			
WIDE BODY OPTIONS				
Auto Rotation	YES			
WBLD Equalization	YES			
Integrated Cassette Sensor	YES			
NARROW BODY OPTIONS				
Cassette Present Sensor	NOT AVAILABLE			
Wafer Out of Cassette Sensor	NOT AVAILABLE			
<u>Common Chamber Options</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Variable Speed Blower	YES			
Lamps Type	USHIO BNA6			
Thickness Control Options	ACCUSETT 2			
Recipe Control Software	SERIAL			
Lift Pin Type	HOLLOW SILICON CARBIDE			
Pump Isolation Valve	NOT APPLICABLE			
Gold Reflective Plating	STANDARD			
Recipe Offset Table	NO			
<u>Facilities</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Mainframe Cooling Water	OUT THE BACK			
<u>Transfer Chamber</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Wafer Sensing	ON THE FLY CENTERFINDING			
* Robot	HP+ ENP			
Xfer Ch Purge Restrictor Size	15 SLM			
Clear Blank Off Plates	NO			
<u>Fab Interface</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Software Release	LATEST RELEASE			
Factory Automation	NONE			
SMIF Robot Type	NOT APPLICABLE			
SMIF Interface Type	NOT APPLICABLE			
Robot Supplied By	NOT APPLICABLE			
<u>Status Light Tower</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Panel Mount	RYG			
Light Tower	RYG LED			

Remotes

<u>System Controller</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Computer Type	VITA CONTROLLER			
Standard GEM Interface	YES			
Controller Plexiglass Cover	NO			

<u>Vacuum Pumps</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Pumps Provided by	CUSTOMER			
Loadlock Chamber Pump	EDWARDS IQDP40	40289251-00	pumps Ebara A70W	
Transfer Chamber Pump	NONE			
Chamber A Pump	NONE			
Chamber B Pump	NONE			
Chamber C Pump	NONE			
Chamber D Pump	NONE			

<u>Heat Exchangers</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
SICONI HX OPTIONS				
LID AND CHAMBER HEAT EXCHANGER				
H2000 DI EG	NOT APPLICABLE			
PEDESTAL HEAT EXCHANGER				
H2000 DI	NOT APPLICABLE			
Heat Exchanger Interface	NOT APPLICABLE			

<u>System Monitors</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Monitor Type	FLAT PANEL DISPLAY			
Monitor 1	THRU THE WALL			
Monitor 1 Cables	50 FOOT			
Monitor 2	STAND ALONE			
Monitor 2 Cables	50 FOOT			
Monitor 3	NONE			
Monitor 3 Cables	NONE			

<u>Cable Lengths (Effective)</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
EFFECTIVE LENGTH IS DISTANCE BETWEEN EQUIPMENT				
Controller to Mainframe	75 FT TOTAL (63 FT EFFECTIVE)			
* Wafer Susceptor Lift Cable	75 FT TOTAL (63 FT EFFECTIVE)			
Controller to Pump	83 FT TOTAL (80 FT EFFECTIVE)			
Heat Exchanger Cable Length	NOT APPLICABLE			
Heat Exchanger Hose Length	NOT APPLICABLE			

Additional Options

<u>Tools and Kits</u>	<u>Selected Option</u>	<u>Part# or NSR#</u>	<u>Part or NSR Description</u>	<u>Note #</u>
Maintenance Purge Box	YES			
First in Fab	NO			
Fab Tool Kit	NO			
Calibration Tool Kit	NO			
Centura HT Standard Tool Kit	NO			
Centura HT Temp Profiling Kit	NO			
Upper Dome Centering Ring Kit	NO			
Robot Calibration Tool	NO			