PLUS (CPR) Heater Block

Semiconductor Technology America Inc.

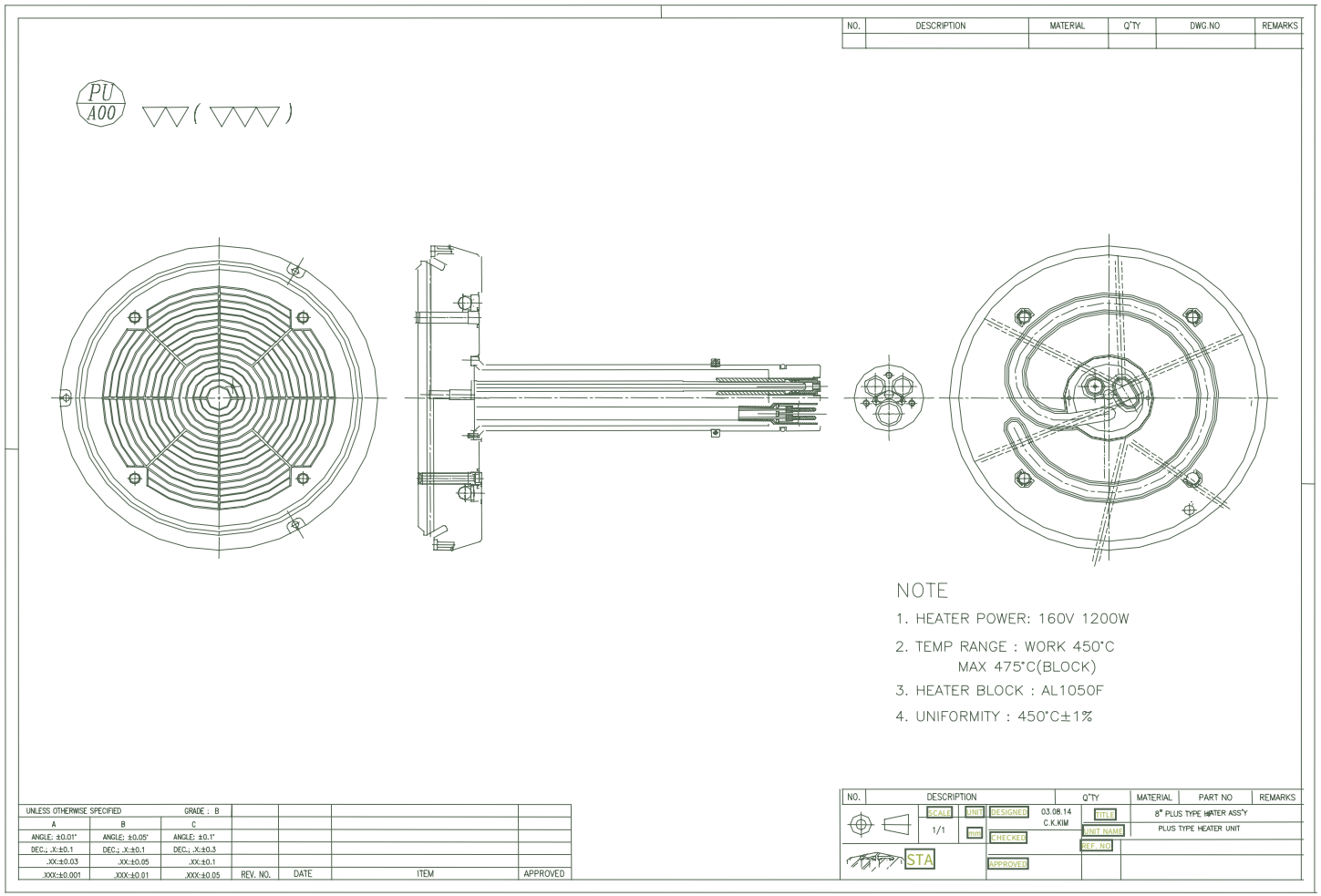
(Eugene, OR. USA)

Specifications

Product	PLUS
OEM part No	0010-04542
Equipment	P-5000
Maker	AMAT
Process	CVD-W deposition
Wafer	8-Inch
Warranty	One year
Connection	Connector-Type

Power	160V, 1200W
Heater resistance	21.3Ω
Sheath	Inconel
Block	Aluminum
Temp.	< 500℃
Temp. uniformity	< 1% (9-point)
Leak Rate	1×10^{-8} torr˚ℓ/sec
Surface Treatment	None

Drawings


NO. DESCRIPTION MATERIAL Q'TY DWG.NO REMARKS
PU A00
NOTE
1. HEATER POWER: 160V 1200W
2. TEMP RANGE : WORK 450°C
MAX 475°C(BLOCK)
3. HEATER BLOCK : AL1050F
4. UNIFORMITY : 450°C±1%
UNLESS OTHERWISE SPECIFIED GRADE : B
A B C
ANGLE: ±0.01° ANGLE: ±0.05° ANGLE: ±0.1°
DEC., .X:±0.1 DEC., .X:±0.1 DEC., .X:±0.3
.XX:±0.03 .XX:±0.05 .XX:±0.1
.XXX:±0.001 .XXX:±0.01 .XXX:±0.05
REV. NO. DATE ITEM APPROVED
NO. DESCRIPTION Q'TY MATERIAL PART NO REMARKS
SCALE 1/1
UNIT mm
DESIGNED 03.08.14 C.K.KIM
CHECKED
APPROVED
TITLE 8" PLUS TYPE HEATER ASS'Y
UNIT NAME PLUS TYPE HEATER UNIT
REF. NO
STA

Final Inspection Sheet and Heating Test

Issue #	Final Inspection sheet	Approval	Rev. by	Approved by
Q-0830-04				

1. General Items

Customer		SERIAL No.	PLUS08 - 408N005		
Product	PLUS Type CVDW HEATER BLOCK(Wxz)			Ship out	2004

2. Specification

Power	160V, 1200W
Use Temp.	475℃

3. INSPECTION RESULTS

	Detailed Items	SPEC	RESULT	remarks
Major Demension	A	211±0.1	210.84	Attached Drawing
	B	233.6±0.1	233.63	
	C	295.5±0.2	295.33	
	D	50.8 +0/ -0.1	50.80	
	E	6.40 +0/ -0.1	6.30	
	F	2.40 +0.1/ -0	2.47	
	G	0.0 +0/ -0.1	-0.1	
Electrical	Insulated Resitance(Power terminal	>= 40 MΩ	2000	MΩ
	Heater Resitance(Termial-Termmal)	21.3 ± 1 Ω	22.2	Ω
	Inner Voltage	More than 1 min at 1600V	O.K	JIS standard
Heating	Temp. uniformity	<= Unif 1%		425℃ set
LEAK	He Depresurizing	<= 10E-08	$7.6 * 10^{-9}$	Torr * ℓ/sec
Flatness	X, Y Axis scan	(Max - Min) < 0.05	0.03	
Rectangularity	A right Rod	Ver. < 0.05	0.01	
Inspection of shape	Surface Damage?	Excellent / Fine / Poor		
	Ceramic Bushing included?	Excellent / Fine / Poor		
	Bushing Fixed Ring?	Excellent / Fine / Poor		
	TC Setting and Fixed screw?	Excellent / Fine / Poor		
	The scale of Helico Coil and Its Setting?	Excellent / Fine / Poor		
	Power Connector setting?	Excellent / Fine / Poor		
	Bracket status?	Excellent / Fine / Poor		
	O-ring housing setting?	Excellent / Fine / Poor		

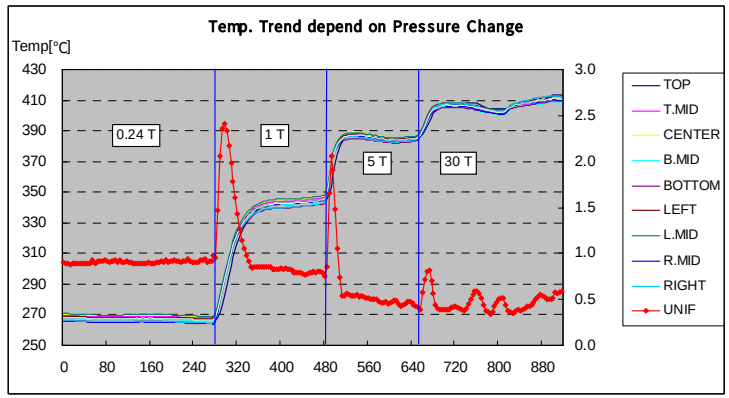
4. Conclusion

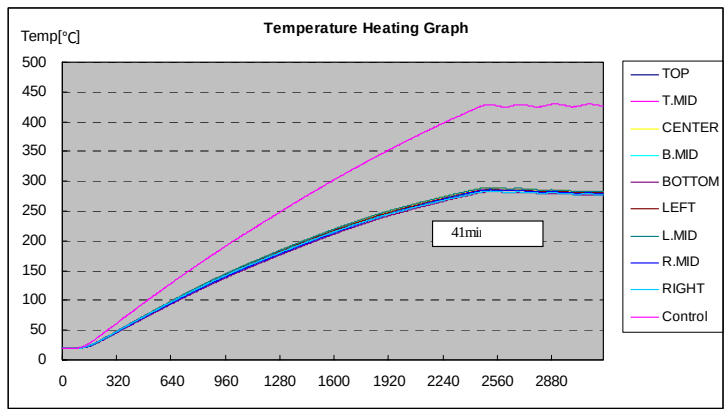
Date of Inspection	2004.08.30	Result	Pass / Fail
Discussion		Inspector	

5. Remarks

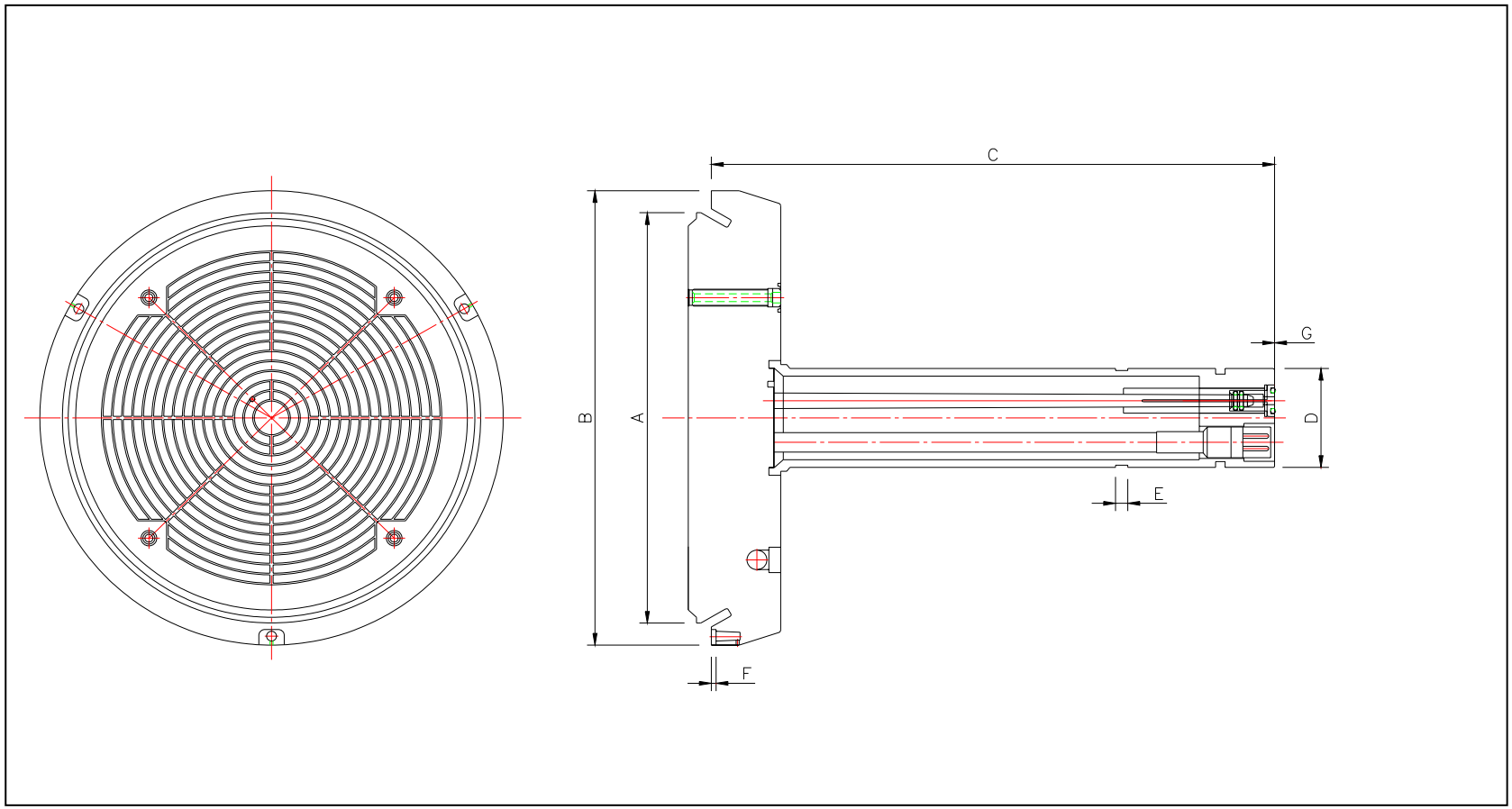
Heating Test results

Serial No. : PLUS08-403N006
Setting Temp : 425℃
T/C Wafer : 9 points
TEST Method : Variation of Cheamber Pressure (0.24T / 1.0T / 5.0T / 30T / 90T)





QC Drawing



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