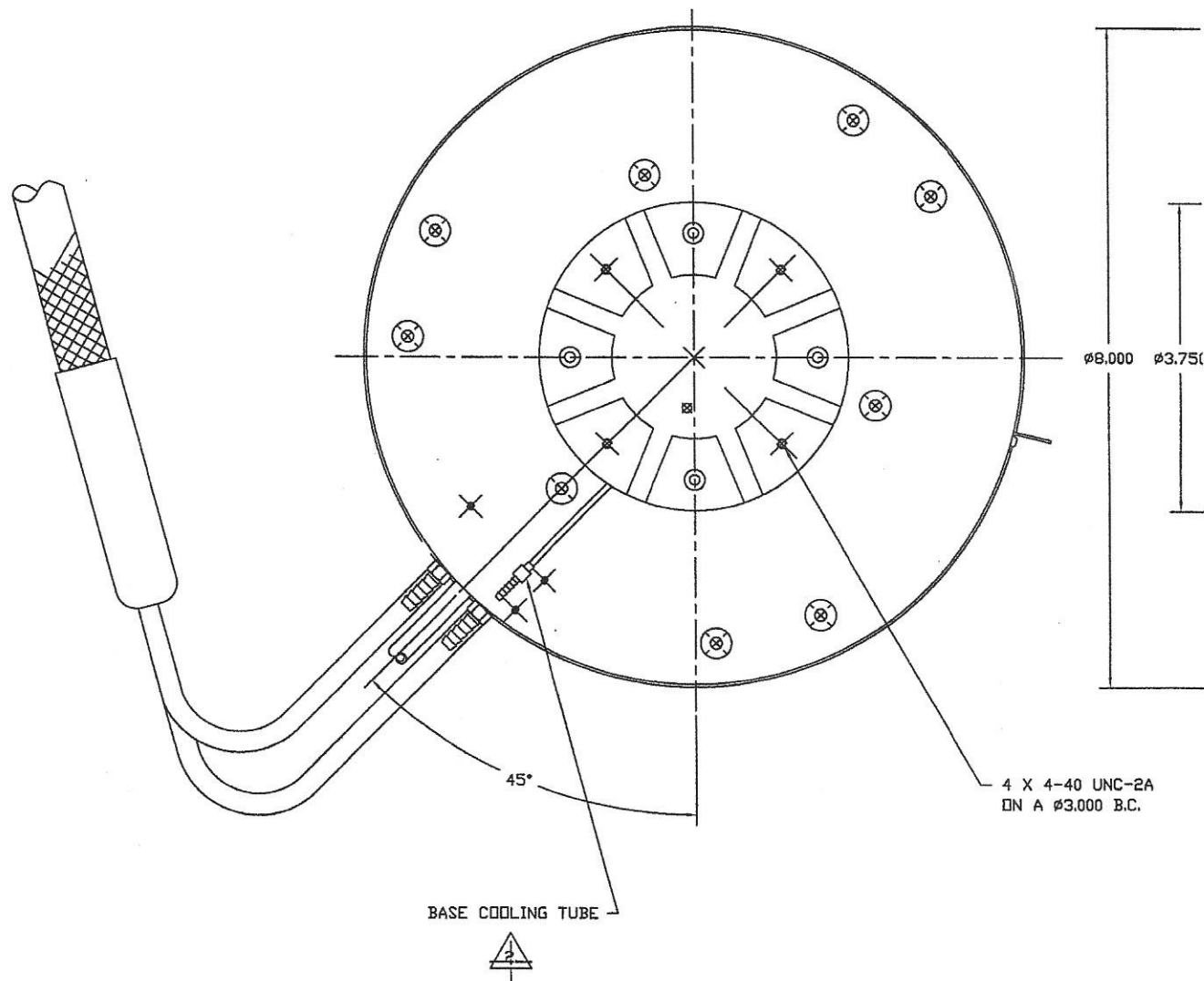


□//A .001



# THERMOPILES

TEMP RANGE

FLATNESS/PARALLELISM

SURFACE/GRND ISOLATION

SURFACE/GRND CAP

2 TO PREVENT HEAT RADIATION TO PROBER AT ELEVATED OPERATING TEMPERATURES, SUPPLY 50 PSI OF AIR TO BASE COOLING TUBE USING 1/16 I.D. SILICONE TUBING SUPPLIED.

1. INTERPRET DRAWING PER DDD-STD-100.

GENERAL NOTES: (UNLESS OTHERWISE SPECIFIED)

10010

1 A

ALL A INITIAL RELEASE PER 10010A

05-25-94

A .001

VACUUM FEED

15°

15°

BIAS LUG

45°

0.688

POWER CABLE

## K SPECIFICATIONS

TP03010A	TP03010B
AMBIENT TO 130°C	15°C TO 200°C
AMBIENT TO 200°C	15°C TO 130°C
< 0.001" TIR UP TO 100°C	
< 0.002" TIR UP TO 200°C	
> 1 X 10 <sup>9</sup> Ω @500 VDC	
<1000 pF	

		1/32	.030 .010	1"	N/A				
		N/A			G.ESPINDLA	05-25-94			
		N/A							
					D.BUTCHER	05-25-94	111	1 OF 2	
							N/A	10010	A

CONFIG. CONTROL  
Ø8.0 CM



## CX0803A2SCMBG1

### TEST DATA SHEET

#### History Revisions

Rev. #	Date	Revision Description	Author	Signature
A	3/6/02	Released	Gates	
B	7/16/02	Change Chuck p/n from CZ0803A2SCMBN1 to CX0803A2SCMBN1 module change	Butcher	
C	8/12/03	Added base flatness spec (SHT 4)	Butcher	

\*\*\*THIS TEST TO BE CONDUCTED BY TRAINED TECHNICIANS ONLY\*\*\*

\*\*\*ENGINEERING SIGNATURE REQUIRED WHERE TEST DATA IS OUTSIDE OF SPECIFIED LIMITS\*\*\*

## THERMO-CHUCK INFORMATION

CUSTOMER:

CMI

SALES ORDER #:

24356

THERMO-CHUCK PART NO:

SA163040

THERMO-CHUCK SERIAL #:

CHS12675T

CHUCK SURFACE CONFIGURATION

N/A

TEMPERATURE RANGE (tested):

-65 °C to +200 °C

TEST TECHNICIAN:

Patrick Chin

DESIGN ENGINEER:

Dana Butcher

DATE:

12-21-06

FINAL QUALITY INSPECTION:

G. Chin

## ELECTRICAL VERIFICATION TESTS

### ISOLATION TEST INSTRUMENT

MAKE AND MODEL #:

1864 MEGOHMMETER

SERIAL #:

1864-9700-HW 3084

CALIBRATION DATE:

08-08-06

CALIBRATION EXPIRATION DATE:

08-08-07

BASE TO SURFACE:

=  $200 \times 10^5 \Omega$

@ 500 VDC ( $1 \times 10^9 \Omega @ 500 \text{VDC MIN}$ )

MODULES (pin 7) TO BASE:

=  $100 \times 10^5 \Omega$

@ 500 VDC ( $1 \times 10^9 \Omega @ 500 \text{VDC MIN}$ )

MODULES (pin 7) TO SURFACE:

=  $200 \times 10^5 \Omega$

@ 500 VDC ( $1 \times 10^9 \Omega @ 500 \text{VDC MIN}$ )

RTD TO SURFACE:

=  $500 \times 10^5 \Omega$

@ 500 VDC ( $1 \times 10^9 \Omega @ 500 \text{VDC MIN}$ )

### MULTIMETER TEST INSTRUMENT

MAKE AND MODEL #:

SIMPSON 260

SERIAL #:

TEMP97401

CALIBRATION DATE:

08-08-06

CALIBRATION EXPIRATION DATE:

08-08-07

### MEASUREMENTS TAKEN AT CHUCK CABLE END

RTD RESISTANCE:

110  $\Omega$

PINOUT: PIN # 2 TO PIN # 4 ( $110/90 \Omega$ )

RTD RESISTANCE:

110  $\Omega$

PINOUT: PIN # 3 TO PIN # 5 ( $110/90 \Omega$ )

MODULE RESISTANCE:

3  $\Omega^*$

PINOUT: PIN # 7 TO PIN # 8

\* Note this measurement is taken after entire chuck is at ambient with no power applied.

\*\* Note verify modules are potted.

**CAPACITANCE TEST INSTRUMENT**

MAKE AND MODEL #:

830 AUTORANGE CAPACITANCE METER

SERIAL #:

72-39163

CALIBRATION DATE:

03-28-06

CALIBRATION EXPIRATION DATE:

03-28-07

MODULES (pin 7) TO SURFACE: = 828 pf (<950 pf)

BASE TO SURFACE: = 454 pf (<950 pf)

**MECHANICAL VERIFICATION**

**MECHANICAL TEST INSTRUMENT**

MAKE AND MODEL #:

STARRETT HGC 2018-16

SERIAL #:

B-1311

CALIBRATION DATE:

03-10-06

CALIBRATION EXPIRATION DATE:

03-10-07

**AMBIENT CONDITIONS**

AMBIENT TEMP. : 23.0 °C

AMBIENT HUMIDITY: 40 % RH

**FLATNESS VERIFY**

TIR @ AMBIENT: <.0005

0.001" MAXIMUM

**BASE FLAT. VERIFY**

TIR @ AMBIENT: .00019

0.0004" MAXIMUM

**PARALLELISM VERIFY**

TIR @ AMBIENT: .00041

0.001" MAXIMUM

**PLATING SPECIFICATION**

**(note: chuck model number must be verified for proper plating specification)**

GOLD



### VACUUM VERIFICATION

VACUUM PORTS VERIFIED WITH PIN GAGE:

☒

VACUUM PORTS VERIFIED WITH AIR:

☒

THREE VACUUM PORT FITTINGS INSTALLED:

☒

#### ***ALL VACUUM PORTS VERIFIED BY VACUUM TEST \****

VACUUM PORT 1 READING: = 500 MM HG\* ( $\geq -450$  mmHg)

VACUUM PORT 2 READING: = 499 MM HG\* ( $\geq -450$  mmHg)

VACUUM PORT 3 READING: = 498 MM HG\* ( $\geq -450$  mmHg)

\* Tested with wafer on surface, applied vacuum 500 mm hg, measured with manometer

### FUNCTIONAL VERIFICATION TESTS

VERIFY BASE COOLANT TUBE INSTALLED:

☒

VERIFY BASE COOLANT TUBE AIR PRESSURE TESTED:

☒

VERIFY COOLANT TUBES INSTALLED:

☒

VERIFY COOLANT TUBES TESTED WATER TIGHT:

☒

VERIFY ALIGNMENT OF COOLANT TUBES:

☒

VERIFY CHUCK EXTENSION CABLES TESTED AND PROPERLY CODED:

☒

**SYSTEM FINAL QUALITY INSPECTION**

CHUCK S/N ENGRAVED ON CABLE CONNECTOR:

☒

CHUCK S/N STAMPED ON HEATSINK:

☒

GROUND LUG INSTALLED & VERIFY ORIENTATION:

☒

ALL REQUIRED SET SCREWS INSTALLED:

☒

CHUCK BAND INSTALLED:

☒

CHUCK CABLE IS CLEAN:

☒

CHUCK SURFACE IS CLEAN:

☒

CHUCK COVER INSTALLED:

☒

COSMETIC APPEARANCE:

☒

VERIFY ALL P-LEVEL MATERIAL PRESENT AND LABELED:

☒

DESICCANT PACK PLACE IN CHUCK CONTAINER:

☒

SERVICE PACKAGE:

☒

**COMMENTS :**

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