

**D0 SILICON TRACKER  
H-DISK**

**HALF WEDGE #** \_\_\_\_\_  
**HALF WEDGE TYPE ("C" or "E")** \_\_\_\_\_

**Active (Outer) sensor #** \_\_\_\_\_

**Passive (Inner) sensor #** \_\_\_\_\_

**HDI #** \_\_\_\_\_

**Half wedge grade ("A" or "B" or "C")** \_\_\_\_\_

**Depletion voltage  
(from "laser test")** \_\_\_\_\_ V

**Operation voltage** \_\_\_\_\_ V

**Date started** \_\_\_\_\_

**Date completed** \_\_\_\_\_

**WEDGE #** \_\_\_\_\_







**H-half wedge electrical tests checklist.**

**Laser test**

Half wedge # \_\_\_\_\_

Final Rating \_\_\_\_\_

OPERATION	DATE	COMMENTS			BY
<b>Visual inspection (include any fixes that are needed)</b>					
<b>Short electrical test #1</b> Ped and noise (100 evts) at low bias					
<b>Bias current curve</b>		<b>Leakage current _____ @ _____ V</b> ( from "Keithley485" pAmpermeter !!!)			
<b>Laser Depletion voltage</b>		<b>Active sensor:</b> <b>Passive sensor:</b>			
<b>Short electrical test #2</b> Pedestal and noise (100 evts) at full depletion		<b>Value of pedestal in "call inject"</b> <b>Mode _____ (ADC counts)</b>			
<b>Laser scan:</b>		<b>R/O chip 0</b>	<b>R/O chip 1</b>	<b>R/O chip 2</b>	
<b>Bad channels Active</b>  Average pedestal _____ Average laser signal _____ <b>MIN. level of signal for dead channels</b> _____					
		<b>R/O chip 3</b>	<b>R/O chip 4</b>	<b>R/O chip 5</b>	
<b>Bad channels Passive</b>  Average pedestal _____ Average laser signal _____ <b>MIN. level of signal for dead channels</b> _____		<b>R/O chip 0</b>	<b>R/O chip 1</b>	<b>R/O chip 2</b>	
		<b>R/O chip 3</b>	<b>R/O chip 4</b>	<b>R/O chip 5</b>	

**H-half wedge electrical tests checklist.**

**Burn-in test**

**Half wedge #** \_\_\_\_\_

**Final Rating**\_\_\_\_\_

<b>Burn-in #1</b>	<b>AVDD (V)</b>	<b>DVDD (V)</b>	<b>V_bias</b>	<b>Temperature Sensor test</b>	
	<b>Duration</b> _____				
<b>Burn-in #2</b>	<b>AVDD (V)</b>	<b>DVDD (V)</b>	<b>V_bias</b>	<b>Temperature Sensor test</b>	
	<b>Duration</b> _____				

# H-DISK HALF WEDGE

## MICRO BONDING CHECKLIST-2 SVX to Pitch adapter

Half Wedge Serial Number: \_\_\_\_\_ H.Wedge type ("C" or "E"): \_\_\_\_\_

HDI Serial Number: \_\_\_\_\_

Operator: \_\_\_\_\_

Bonding Machine Used: \_\_\_\_\_

Date: \_\_\_\_\_

Time Started: \_\_\_\_\_

Temperature: \_\_\_\_\_

Time Finished: \_\_\_\_\_

Humidity: \_\_\_\_\_

SVX to Pitch adapter					
Inner BOND			Outer BOND		
LHT (Loop Height)			LHT (Loop Height)		
USG POWER SET	On chip	On jumper	USG POWER SET	On chip	On jumper
Bond Inspector:					
Comments:					

**H-DISK HALF WEDGE**  
**ACTIVE (OUTER) SENSOR INSTALLATION**

**Keystone Be checklist**

**HDI number and type** \_\_\_\_\_

**Inspection of Keystone Beryllium part #** \_\_\_\_\_

Type of Inspection	Value	Class	Date	Inspected By	OK / NOT
Visual	—				
Thickness/flatness drop through test					
Size test					

**Outer Sensor Gluing Checklist**

Operator \_\_\_\_\_ Date \_\_\_\_\_

Control person \_\_\_\_\_

Outer det. # \_\_\_\_\_

Part	Results	Grade	Date
Glue type			
Alignment			
Check glue run out			
Resistance between Be-keystone and back plane of sensor	<b>Ohm</b>		
<b>Comments</b>			

# H-DISK HALF WEDGE ACTIVE (OUTER) SENSOR INSTALLATION

## MICRO BONDING CHECKLIST-3 PITCH ADAPTER TO OUTER SENSOR BONDS

Half Wedge Serial Number: \_\_\_\_\_ H.Wedge type ("C" or "E"): \_\_\_\_\_

HDI Serial Number: \_\_\_\_\_

Outer Det. Number \_\_\_\_\_

Operator: \_\_\_\_\_

Bonding Machine Used: \_\_\_\_\_

Date: \_\_\_\_\_

Time Started: \_\_\_\_\_

Temperature: \_\_\_\_\_

Time Finished: \_\_\_\_\_

Humidity: \_\_\_\_\_

<b>p. adapter to outer sensor</b>					
<b>Inner BOND</b>			<b>Outer BOND</b>		
<b>LHT</b> (Loop Height)			<b>LHT</b> (Loop Height)		
<b>USG POWER SET</b>	On adapter	On sensor	<b>USG POWER SET</b>	On adapter	On sensor
<b>Bond Inspector:</b>					
<b>Comments:</b>					

<b>"GND of sensor"-pad on HDI to bias line on outer sensor</b>		
<b>LHT</b> (Loop Height)		
<b>Power</b>	On HDI :	On sensor:
<b>Bond Inspector:</b>		
<b>Comments:</b>		

**Functional test of HDI with Active(Outer) sensor.**

HDI # \_\_\_\_\_

OPERATION	DATE	COMMENTS	BY
<b>Bias current curve</b>		<b>Leakage current</b> _____ @ _____ V ( from "Keithley485" pAmpermeter !!!)	
<b>Functional test</b> Pedestal and noise at operation voltage, in "call inject" mode !!!		<b>Noise (sigma pedestal)</b> _____ (ADC counts)  <b>Value of pedestal in "call inject"</b> <b>Mode</b> _____ (ADC counts)	
<b>Comments</b>			

**H-DISK HALF WEDGE**  
**PASSIVE (INNER) SENSOR INSTALLATION**

**Inner Sensor Gluing**

**HDI number and type** \_\_\_\_\_

Operator \_\_\_\_\_ Date \_\_\_\_\_

Control person \_\_\_\_\_

Inner Det. # \_\_\_\_\_

<b>Part</b>	<b>Results</b>	<b>Grade</b>	<b>Date</b>
Glue type			
Alignment			
Check glue run out			
Resistance between Be-keystone and back plane of sensor	<b>Ohm</b>		
<b>Comments</b>			

# H-DISK HALF WEDGE PASSIVE (INNER) SENSOR INSTALLATION

## MICRO BONDING CHECKLIST-4 OUTER SENSOR TO INNER SENSOR BONDS

Half Wedge Serial Number: \_\_\_\_\_ H.Wedge type ("C" or "E"): \_\_\_\_\_  
 HDI Serial Number: \_\_\_\_\_

Outer Det. Number \_\_\_\_\_ Inner Det. Number \_\_\_\_\_

Operator: \_\_\_\_\_

Bonding Machine Used: \_\_\_\_\_ Date: \_\_\_\_\_

Time Started: \_\_\_\_\_ Temperature: \_\_\_\_\_

Time Finished: \_\_\_\_\_ Humidity: \_\_\_\_\_

Outer sensor to Inner sensor					
Inner BOND			Outer BOND		
LHT (Loop Height)			LHT (Loop Height)		
<b>USG POWER SET</b>	On outer sensor	On inner sensor	<b>USG POWER SET</b>	On outer sensor	On inner sensor
<b>Bond Inspector:</b>					
<b>Comments:</b>					

Bias line of outer sensor to bias line on inner sensor		
LHT (Loop Height)		
<b>USG POWER SET</b>	On outer det.	On inner det.
<b>Bond Inspector:</b>		

## HDI electrical tests checklist

HDI # \_\_\_\_\_

Electrical rating \_\_\_\_\_

OPERATION	DATE	COMMENTS			BY
Visual inspection (include any fixes that are needed)					
Short functional test of bare HDI					
Short functional test of HDI with pitch adapter					
Data integrity check: 100 downloads 10000 events in calinject mode					
Burn-in #1		AVDD (V)	DVDD (V)	Temperature sensor test	
		Duration _____			
Burn-in #2		AVDD (V)	DVDD (V)	Temperature sensor test	
		Duration _____			
Short functional test of HDI with outer detector		Leakage current @ V			