

REVISIONS				
LTR.	ECN	DESCRIPTION	DATE	APPROVED
-	NA	Original Document	4/3/03	

SHEET REVISION STATUS

SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
REVISION	-	-	-	-	-													

CONTROLLED COPY DIST. LIST		THE UNIVERSITY OF WISCONSIN																									
1	15	SPACE SCIENCE & ENGINEERING CENTER MADISON, WISCONSIN																									
2	16	TITLE ICECUBE Digital Optical Module (DOM) Process Flow																									
3	17	ORIGINATOR				DATE				ENGINEER				DATE				DRAFTSPERSON				DATE					
4	18	Jim Haugen																									
5	19	CHECKER				DATE				PRODUCT ASSURANCE				DATE				PROJECT APPROVAL				DATE					
6	20																										
7	21	FILENAME								9000 - 0010								PROJECT NO.				9000					
8	22																										
9	23	DRAWING NO.								9000 - 0010								SCALE				SIZE	SHEET				1 of 5
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1.0 Purpose

Establish the process flow and nomenclature to be used when manufacturing Digital Optical Modules (DOM) which are to be used in the IceCube Project.

2.0 Scope

This document is to be used as the process flow reference for all DOM manufacturing facilities worldwide including PSL (Stoughton, WI) , DESY (Zeuthen, Germany) and the University of Stockholm (Stockholm, Sweden).

3.0 Reference Documents

Document #	Title of document

4.0 Terms and Definitions

None

5.0 Responsibilities

5.1 DOM Production Site Manager – Insure that the manufacturing area adheres to this spec.

6.0 Materials / Equipment / Tools Needed

None

7.0 Requirements / Information

7.1 Safety

7.2

8.0 Preparation / Set-up

None

9.0 Procedures

None

10.0 Forms / Appendices

Document #	Title of document	Page
9000-0100AA	DOM Process Flow	3 -5

11.0 Quality Records

Document #	Owner	Archive location	Retention time

Process Step	Incoming Materials / Subassembly	Documentation	Special Requirements
<p>1</p> <p>PMT Cap Mount</p>	<p>PMT</p> <p>PMT Cap</p> <p>High Voltage Base</p> <p>Incoming electrical test</p>	<p>XXXXXX</p> <p>XXXXXX</p> <p>XXXXXX</p> <p>XXXXXX</p> <p>XXXXXX</p>	<p>1. Example box</p>
<p>2</p> <p>HV Attach</p>		<p>XXXXXX</p>	
<p>3</p> <p>Assembly Clean</p>		<p>XXXXXX</p>	
<p>4</p> <p>Optical inspection</p>		<p>XXXXXX</p>	
<p>5</p> <p>Humiseal HV base</p>		<p>XXXXXX</p>	
<p>Go to page 2</p>			

	Process Step	Incoming Materials / Subassembly	Documentation	Special Requirements
6	From page 1	Benthos sphere	XXXXXX	
		Mu Metal shield	XXXXXX	
		Mu Metal Installation	XXXXXX	
7	PMT mount into jig		XXXXXX	
8	Mix gel		XXXXXX	
9	Pour gel into Benthos sphere		XXXXXX	
10	PMT placement into Benthos sphere		XXXXXX	
11	Partial gel cure		XXXXXX	
12	Full gel cure		XXXXXX	
		Main board	XXXXXX	
		Delay board	XXXXXX	
		Flasher board	XXXXXX	
	Go to page 3			

	Process Step	Incoming Materials / Subassembly	Documentation	Special Requirements
1 3	From page 2 ↓ PC Board Mount			
1 4	↓ Join DOM halves			
1 5	↓ DOM electronics test			
1 6	↓ Quad communication test			
1 7	↓ Seal DOM			
1 8	↓ Harness DOM	Harness kit 		
1 9	↓ Final Pack DOM	Hardigg Box 		
2 0	↓ DFL Test ↓ Move to Final Storage Area			