XMM Optical Monitor

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XMM-OM DECLARED PROCESSES LIST

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CHANGE RECORD

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01	23 March 1995	All New	
02	30 March 1995	2,4,5,9	American information added
03	17 March 1997	All	Latest updates

CONTENTS

1. INTRODUCTION

This document identifies the processes that will be used in the XMM-OM instrument.

2. REFERENCE DOCUMENTS

XMM-OM/MSSL/SP/0031	Product Assurance Plan
XMM PX-RS-0017	Product Assurance Requirements for XMM Experiments
ESA PSS-01-70	Materials and Process Selection and Quality Control
ESA PSS-01-700	The Technical Reporting and Approval Procedure for Materials and Processes

3. QUALITY LEVELS

Processes shall be defined on the relevant detail drawings.

4. TABLE DESCRIPTION FOR THE DECLARED PROCESSES

The format of the processes table is broadly as described in ESA PSS-01-700, The Technical Reporting and Approval Procedure for Materials and Processes.

4.1 Categories

Only non-critical processes are applied to the Optical Monitor.

4.2 Column Description

1. Item number
2. Process
3. Specification
4. Description/identification
5. Use and location
6. User code
7. Associated DML items
8. Criticality of process
9. Approval status
10. ESA comments

4.3 Abbreviations

CYF = C Y Finishes.
I & G = Ingram and Glass
TBA = To be advised
SNL = Sandia National Laboratories

Issue No 3	**DECLARED PROCESSES LIST**	**XMM-OM/MSSL/SP/0029**

PROJECT: **X-RAY MULTIMISSION (XMM)**
EXPERIMENT: **OPTICAL MONITOR**
EXPERIMENTERS: **MULLARD SPACE SCIENCE LABORATORY (MSSL)**
DEPT OF PHYSICS, UNIVERSITY OF CALIFORNIA, SANTA BARBARA (UCSB)
CENTRE SPATIAL DE LIEGE (CSL)
PREPARED BY: **A P Dibbens**

Itm No	Process	Specification	Description/ identification	Use and location	User code	Associated DML items	Criticality of process	Approval Status	ESA Comments
1.	Alocrom 1200	MOD 03-18	Chromating - Commercial process	Various	MSSL	01-01,02, 01-03 06-04	Non-critical		
2.	Anodising	DEF STAN 0324	Chromic acid process	Gear - dichroic assembly	I & G	01-03 12-02	Non-critical		
3.	Chemglaze Z 306, L300 & Z307	ESA PSS-01-725 & SS-R16205A	Black paint polyurethane non-conducting	Blue Module	CYF & SNL	01-01,02, 01-03, 10-05	Non-critical		
4.	Araldite	AV100/HV100 Q-NT-0123 ESA-PSS-01-701	Epoxy adhesive 2 part 1:1 cure 4 hrs @ 60 C	Secure magnets Dichroic assy Telescope structure	MSSL	10-01	Non-critical		
5.	Hand soldering	ESA PSS-01-708	Mechanical & electrical securing of components	All PCB’s and cables used in OM	MSSL, CSL & SNL	07-01	Non-critical		

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Itm No	Process	Specification	Description/ identification	Use and location	User code	Associated DML items	Criticality of process	Approval Status	ESA Comments
6.	Repair and modification of PCB's	ESA PSS-01-728	Re-working PCB's for design changes or faults	Any PCB in the OM	MSSL	15-01	Non-critical		
7.	Crimp connections	ESA PSS-01-726	Fabrication of wiring harnesses	Internal and external wiring harnesses	MSSL	19-01	Non-critical		
8.	Soldering surface mount components	ESA PSS-01-738	Hi-Rel soldering for surface mount and mixed technology pcb's	High density pcb's	MSSL	07-01	Non-critical		
9.	Bonding with Solithane 113	Q-NT-0121 ESA-PSS-01-701	2 part 100:73 cure 7 days @ 25 C or 4 hrs @ 65 C	Locking screws	MSSL	10-02	Non-critical		

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Itm No	Process	Specification	Description/ identification	Use and location	User code	Associated DML items	Criticality of process	Approval Status	ESA Comments
10.	Heat Treatment T 73	Mil-H-6088-F	Thermal treatment	Treatment for aluminium	SNL	01-01	Non-critical		
11.	Alodine	Mil-C-5541C	Chromate coating	Various, in DEM	SNL	01-05	Non-critical		
12.	PCB Assembly & Repair	Mil-Std-2000 rev A	Hand soldering	PCB's in DEM	SNL	15-01	Non-critical		
13.	Conformal Coating	SS346233 iss H	Coating for PCB's & signs	PCB's & signs in DEM	SNL	10-07	Non-critical		
14.	Conformal coating	CV 1152	Coating for PCBs.	PCBs in OM 1	MSSL	10,03	Non-critical		