

SPIRE ILT AOT Test Report K.J. King

1. INTRODUCTION

AOTs define the way in which the different types of SPIRE observations are implemented. They are defined using the Herschel Common Uplink System (CUS), which converts user input into a sequence of satellite and instrument commands with appropriate timing. These command sequences use both simple DRCU commands and Command Lists defined specifically for SPIRE observations. One purpose of these tests was to execute as many different AOT types as possible in order to determine if the command sequence and timing was correct, and to exercise the Command Lists used..

For each AOT tested the user inputs were taken from the relevant section of RD01 and the command sequence generated was executed by the instrument.

1.1 Scope

The purpose of this document is to record the current status of the AOT testing at the conclusion of the FM Instrument-Level Test programme. Subsequent testing will continue with

- Integrated System Tests the Reference Mission Scenario will execute a set of nominal observations
- FS Instrument-Level Test Programme
- FS additional cooldowns
- AVM Tests

1.2 Reference Documents

Ref	Document	Name	Version/Issue No.
RD01	SPIRE AOT Test Plan	SPIRE-RAL-DOC-002720	Issue 1.0
RD02	PFM3 AOT Test Report	SPIRE-RAL-REP-002719	Issue 1.0
RD03	PFM4 AOT Test Report	SPIRE-RAL-REP-002844	Issue 1.1

1.3 Change Record

Document	Change date		Changes	
Issue 1.0	26/09/07	First Version		



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2. SUMMARY OF AOT TEST STATUS

AOT	Operating Mode	Status	Outstanding SPRs	Comments
	POF1 (Chopping)	Not Tested		Non-baseline mode
Point Source Photometry	POF2 (7 point Jiggle map No nodding)	Not Tested		Non-baseline mode
	POF2 (7 point Jiggle map Nodding)	Successful		Multiple integrations not tested
Small Map Photometry	POF3	Successful		
Large Map	POF4	Not Tested		Non-baseline mode
Photometry	POF5	Successful		Restricted to no-source observations
	SOF1 (sparse spatial sampling)	Successful		
Spectroscopy	SOF2 (int/full spatial sampling)	Successful	SPR-0582	No BSM data generated
Single Pointing	SOF3 (sparse spatial sampling)	Not Tested		Non-baseline mode
	SOF4 (int/full spatial sampling)	Not Tested		Non-baseline mode
	SOF1 (sparse spatial sampling)	Not Tested		Cannot control telescope movement
Spectroscopy	SOF2 (int/full spatial sampling)	Not Tested		Cannot control telescope movement
Raster Map	SOF3 (sparse spatial sampling)	Not Tested		Non-baseline mode
	SOF4 (int/full spatial sampling)	Not Tested		Non-baseline mode