

SPIRE/PACS (CEA-SBT)	Monthly Report – September 2003	Date: October 1 st , 2003
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Work Package: Cooler

SPIRE-REP-SBT-001844

1. Subsystem Progress Since Project Inception		
Detailed design of the coolers (CQM, STM, PFM & FS) done. Manufacturing of 2 CQM + 2 STM done. Manufacturing of new large test cryostat done (“standard” test cryostat available). Product Assurance plan implemented. STM units delivered. CQM units : SPIRE delivered – PACS : additional thermal tests for investigation purpose		
2. Subsystem Progress This Month		
<ul style="list-style-type: none"> - CQM PACS : Wires on pump heat switch thermometer fixed (re-solder). Investigation on cold tip did not reveal any problem; subsequent thermal test of cooler indicated a major parasitics (500 μW). After investigation it turns out this problem was due to the strap (displaced during previous opening, and lack of flexibility after gold plating). Problem fixed (new strap not gold plated) : cooler back to normal (still with 8 μW extra). Additional tests on going to try to discriminate between switch, titanium and Kevlar (8 μW extra load). - 2 members of the technical staff are now ESA certified for wires soldering. - Kevlar characterisation campaign : On going (new set of tests with dummy suspension system) – New tensioning procedure available soon. - FM fabrication phase review held at SBT Sept. 30th : waiting for board comments. 		
3. Problem Areas		Remedial Action
Peculiar behaviour of Kevlar / additional thermal load on cooler		Under investigation
4. Engineering Activities		
5. Design Changes		
6. PA/QA Activities		
General QA management.		
7. Subsystem Management Issues		
None		
8. Actions Requiring Immediate Attention		
SBT documents approval by SPIRE and PACS projects		
9. Status of Previous Actions		
None		
10. Activities Yet to be Achieved		
11. Milestones		
		Status
Winter 00-01	Coolers Detailed Design	Completed
May 17 th 2001	Coolers DDR (PACS & SPIRE)	Completed
June 26 th 2001	Subcontractor selection for machining	Completed
October 2001	Parts Delivery	Completed
Spring 2003	CQM Coolers assembling	Completed
Nov/Dec 2001	STM Coolers Assembling and Vtest	Completed
Nov. 2002	STM Coolers delivery	Completed
Spring 2003	CQM Coolers Qualification	Completed for SPIRE and PACS. Additional investigation with PACS CQM
Autumn 2003	CQM Coolers Delivery	Completed for SPIRE
12. Schedule Changes		