

SPIRE/PACS (CEA-SBT)	Monthly Report – May 2006	Date: June 2 nd , 2006
--------------------------------	----------------------------------	--

SPIRE-SBT-REP-002667

Work Package: Cooler

1. Subsystem Progress Since Project Inception		
FM SPIRE and PACS delivered.		
2. Subsystem Progress This Month		
<ul style="list-style-type: none"> - FM1 (SPIRE) and FM2 (PACS) : Delivered. Undergoing tests (RAL and SAP). - Heat switches : 4 heat switches finally selected for the FS coolers. Their thermal performances are compliant with the requirements/predictions (including OFF to ON kinetic). However two of them will require an adapting plate: I remind you that two brazing processes have been used for the production of these new switches (the original process (5 units) and a new process involving different brazing temperatures (5 units)). For both process a tooling is used to guarantee the parallelism of the titanium and copper plate I/F. Which by the way is not required anymore as flexible links are now used to connect the switches I/F to the level 0 straps. Anyway as the second process involves an additional brazing phase it turns out the two plates are parallel but the overall switch is not fully straight: the switch end is shifted by several hundred microns. This is not regarded as a major problem (obviously the switches went thru their dedicated qualification program), however an adapting plate will be needed to heighten the switches (2 of them). We are already using a 150 µm Kapton sheet to provide the electrical isolation, thus one solution would be to pile up additional sheets - or to machine a small stainless steel (or Titanium) plate. This is to be decided with the PACS and SPIRE project. - PACS – Level 0 Interface : A complete set of straps have been delivered to MPE. The thermal characterisation was successfully carried out. Conductances of about 200 mW/K and 80 mW/K at 2K were measured for the level 0 straps respectively routed to the evaporator switch strap I/F and pump switch strap I/F. - FS PACS and SPIRE: Integration of heat switches in progress. 		
3. Problem Areas		Remedial Action
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 – decision on solution for the heightening of two switches		
9. Status of Previous Actions		
None		
10. Activities Yet to be Achieved		
11. Milestones		Status
Spring 2006	FS final assembly	On going (90% done)
Summer 2006	FS acceptance program	
Autumn 2006	FS delivery	
12. Schedule Changes		
13. Joke of the Month		
<p>A poet and a scientist were traveling together on a plane. The scientist was bored and said to the poet, "Hey, you, do you want to play a game? I'll ask you a question, and if you get it wrong, you give me 5 €. Then, you ask me a question, and if I can't answer it, I'll give you 5 €." The poet thought about this for a moment, but he decided against it, seeing that the scientist was obviously a very bright man. He politely turned down the scientist's offer.</p> <p>The scientist, who was really bored, tried again. "Look, I'll ask you a question, and if you can't answer it, you give me 5 €. Then you ask me a question, and if I can't answer it, I'll give you 50 €."</p> <p>The poet agreed. "Okay," the scientist said, "what is the exact distance between the Earth and the Moon?"</p> <p>The poet, obviously not knowing the answer, didn't stop to think about the scientist's question. He took a 5 € bill out of his pocket and handed it to the scientist.</p> <p>The scientist happily accepted the bill and promptly said, "Okay, now it's your turn."</p> <p>The poet thought about this for a few minutes, then asked, "All right, what goes up a mountain on three legs, but comes down on four?"</p> <p>The bright glow quickly vanished from the scientist's face. He thought about this for a long time, taking out his notepad and making numerous calculations. He finally gave up on his notepad and took out his laptop, using his Multimedia Encyclopedia. As the plane was landing the scientist gave up. He reluctantly handed the poet a 50 € bill.</p> <p>The poet accepted it graciously, getting ready to stand up. "Wait!" the scientist shouted, "you can't do this to me! What's the answer?"</p> <p>The poet looked at the scientist and calmly put a 5 € bill into his hand</p>		