

## ESA PCB workshop programme: Future trends in PCB technologies for space applications 22<sup>nd</sup> -23<sup>rd</sup> of October 2009

**First day:**

**Location: ESTEC    Room: Newton 2**

Start	Stop	Company	Speaker		Presentation title
10h	10h15	ESA/ESTEC	Philippe	PEROL	ESA Welcome
10h15	10h30	ESA/ESTEC	Carole	VILLETTE	PCB Workshop objectives- ECSS-Q-ST-70-12 status- actual ESA and CNES studies
10h30	10h45	Astrium Satellites	Brigitte	BRAUX	Workshop program and rules

**First session            End users needs**

10h45	11h05	Astrium Satellites	Damien	BAUDET	ESA studies
11h05	11h 25	TAS	Norbert	VENET	Next generation of telecom payload and impact on PCB
11h25	11h45	RUAG	Per	ALLARD	RUAG Future trends for PCB designs in payload applications
11h45	12h05	Astrium Satellites	Wiefried	PFEFFER	Failure Prevention and Detection in HDI PCB's
12h05	12h25	Astrium Satellites	Andy	LEWIS	Astrium PCB Policy and Strategy overview
12h25	12h45	Astrium Space Transportation	Jens	WENDORFF	Customized PCB and Equipment Manufacturing at Astrium-ST
12h45	13h05	TAS	David	NEVO	Background and needs on RF Printed circuit Board at Thales Alenia Space

13h10    14h30    *Lunch break*            *Estec Cantine*

**Start Stop Company Speaker Presentation title**

**Second session PCB Manufacturers presentation**

14h30	14h50	SOMACIS	Giacomo	ANGELONI	Coupling effects in multimode buried channel waveguides arrays for printed circuit board optical interconnects
14h50	15h10	CISTELAIER	Andrea	QUEIROLO	PCB CISTELAIER- Beyond your expectations
15h10	15h30	ELCO	Philippe	FANALS	HDI laser $\mu$ via - Multilayers Sequential Build-up for $\mu$ BGA - Reliability - Controlled impedances - HF materials - Power PCB with high copper thickness or heatsink
15h30	16h00	TVR	Antonello	PRAMAGGIORE	TVR technical capabilities

16h00 16h30 *Coffee break*

16h30	16h50	TESAT	Thomas	MAIHOEFER	General information about Tesat PCB - production.
16h50	17h10	CIMULEC	Laurent	BODIN	Status and trends in RF and microwave PCB technologies and manufacturing
17h10	17h30	PRINTCA	Jan	NIELSEN	Non conductive filled cap plated PTH for reliable via in pad configurations
17h30	18h00	PRINTCA	Jan	NIELSEN	Use of Non Woven Aramide Materials (Arlon Thermount and first impression of the new Arlon 85XT thermount
18h00	18h20	TEKNOFLEX	Keith	NETTING	Flex circuit technologies for space applications- An overview of capabilities and requirements for the future.

**Start   Stop   Company   Speaker   Presentation title**

**Second day:**

**Location: ESTEC   Room: Newton 2**

**Third session   PCB Manufacturers presentation**

9h30	10h00	SYSTRONIC	Philippe	PERNOT	Existing capabilities, Quality controls, Development road map
10h00	10h30	CIRE	Pierre-Emmanuel	GOUTORBE	High Tech PCB's general Overview
10h30	11h00	PRINTCA	Jens	NIELSEN	PRINTCA capabilities

*11h00   11h30   Coffee break*

11h30	12h00	INVOTEC	Phil	PRICE	Invotec's technical/capabilities/roadmap presentation
12h00	12h30	GRAPHIC	Paul	COMER	A review of Graphic capabilities
12h30	13h00	CIMULEC	Francois-Xavier	LUCAS	CIMULEC Capabilities

*13h00   14h30   Lunch break   Estec Cantine*

**Fourth session   Synthesis - White book**

14h30	16h30	Round table			
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16h30		End of the Workshop		
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