Tuesday 11th June 2013

0900-1000 ***Keynote Speaker***

Torbjörn Hult, SPACECRAFT AVIONICS ARCHITECTURES, ORDER OR CHAOS?

1000-1050 ***Standardisation 1 (Long Papers)***

(90) Steve Parkes, Chris McClements, Albert Ferrer, Alberto Gonzalez; SPACEFIBRE: MULTIPLE GBIT/S NETWORK TECHNOLOGY WITH QOS, FDIR AND SPACEWIRE PACKET TRANSFER CAPABILITIES

(51) Clifford Kimmery, Stephen Belvin; SPACEFIBRE QUALITY OF SERVICE AND NETWORK ROUTING

1110-1225 ***Standardisation 2 (Long Papers)***

(52) Evgeny Yablokov, Yuriy Sheynin, Elena Suvorova, Alexander Stepanov, Tatiana Solokhina, Yaroslav Petrichcovitch, Alexander Glushkov, Ilia Alekseev; GIGASPACEWIRE - GIGABIT LINKS FOR SPACEWIRE NETWORKS

(45) Sergey Gorbachev, Ludmila Koblyakova, Yuriy Sheynin, Alexander Stepanov, Elena Suvorova, Martin Suess; DISTRIBUTED INTERRUPT SIGNALLING FOR SPACEWIRE NETWORKS

(50) Clifford Kimmery; RUNNING DISPARITY MANAGEMENT FOR DC-BALANCING A 10-BIT CODE SET

1345-1525 ***Test & Verification 1 (Long Papers)***

(53) Roger Peel, Paul Walker, Barry Cook, David Jameux; DETERMINING THE BEHAVIOUR OF BLACK-BOX SPACEWIRE COMPONENTS

(22) Yuexing Li, Xiaojuan Li, Rui Wang, Yong Guan, Jie Zhang, Xiaoyu Song; PROBABILISTIC ANALYSIS OF SPACEWIRE COMMUNICATION PROCESSES

(84) Pete Scott, Alan Spark, Paul Crawford, Steve Parkes; MARGIN TESTING OF SPACEWIRE DEVICES

(23) Ping Luo, Xiaojuan Li, Yong Guan, Rui Wang, Jie Zhang, Xiaoyu Song; MODELING AND VERIFICATION OF SPACEWIRE INTERFACES BY TIMED AUTOMATA

1545-1700 ***Onboard Equipment & Software (Long Papers)***

(86) Bruce Yu, Steve Parkes, John Franklin, Chris McClements, Pete Scott, David Dillon; HIGH PROCESSING POWER DIGITAL SIGNAL PROCESSOR WITH SPACEWIRE AND SPACEFIBRE INTERFACES

(40) Mitsutaka Takada, Hiroaki Takada, Yang Chen, Takayuki Yuasa, Tadayuki Takahashi, Masaharu Nomachi; DEVELOPMENT OF SOFTWARE PLATFORM SUPPORTING A PROTOCOL FOR GUARANTEEING THE REAL-TIME PROPERTY OF SPACEWIRE

(71) Björn Osterloh, Andre Schäfer, Harald Michalik; ADVANCED SPACEWIRE CORE WITH EXTERNAL CLOCK RECOVERY PHY AND PROGRAMMABLE PROTOCOL PROCESSING

Wednesday 12th June 2013

0900-1055 Components 1 (Long Papers+1 short)

(69) Sandi Habinc, Jonas Ekergarn, Martin Simlastik, Fredrik Ringhage, Steven Redant, Geert Thys, Jagadeesa Das Arul Mahesh, Martin Suess; 18X SPACEWIRE ROUTER BASED ON THE DARE 180NM LIBRARY

(83) Nicolas Ganry; ATMEL'S NEW RAD-HARD SPARC V8 PROCESSOR EMBEDDING STATE-OF-THE-ART SPACEWIRE

(4) Jennifer Larsen, Rob Ciccariello; RELIABILITY STUDY OF OVER/UNDER VOLTAGE FOR LVDS PHYSICAL LAYER OF SPACEWIRE

(65) Fredrik Sturesson, Sandi Habinc, Jørgen Ilstad, Jan Wouters, Steve Redant; EUROPEAN LVDS TRANSCEIVER DEVELOPMENT

(48) Volodymyr Burkhay, André Rocke, César Boatella Polo, Gianluca Furano, Farid Guettache, Jørgen Ilstad, Giorgio Magistrati; RADIATION-TESTED EXTENDED COMMON MODE LVDS COMPONENTS

1115-1205 Components 2 (Long Papers)

(72) R. Trautner; NEW DSP BASED IP, DEVICES AND SYSTEMS FOR SPACE APPLICATIONS FEATURING SPW / SPFI INTERFACES

(88) Steve Parkes, Chris McClements, Albert Ferrer, Alberto Gonzalez, Ran Ginosar, Tuvia Liran, Dov Alon, Michael Goldberg, Gal Sokolov, Gennady Burdo, Nimrod Blatt, Paul Rastetter, Milos Krstic, Alberto Crescenzio; A RADIATION TOLERANT SPACEFIBRE INTERFACE DEVICE

1205-1235 Onboard Equipment & Software (Short Papers)

(17) Viacheslav Grishin, Petr Eremeev, Sergey Gorbunov, Tatiana Solokhina, Alexander Glushkov, Ilya Alekseev, Leonid Menshenin, Jaroslav Petrichkovich, Yuriy Sheynin, Suvorova Elena, Bernard Berne; PROTOTYPE OF ONBOARD MASS STORAGE DEVICE BASED ON SPACEWIRE AND SPACEFIBRE INTERFACES

(29) Michele De Meo, Giovanni Saldi, Guido Rosani, Wahida Gasti, Jeff Noyes, James Windsor, Joachim Poeckentrup, Reinhard Eilenberger; BEPICOLOMBO SOLID STATE MASS MEMORY EMPLOYING SPACEWIRE

1355-1510 Networks & Protocols (Short Papers)

(37) Dmitry Raszhivin, Yuriy Sheynin, Alexey Abramov; DETERMINISTIC SCHEDULING OF SPACEWIRE DATA STREAMS

(39) Qiang Wan, Baokang Zhao, Bo Liu, Chunqing Wu; A NETWORK DEVICE DRIVER FRAMEWORK FOR SPACEWIRE

(62) Alexey Syschikov, Elena Suvorova, Yuriy Sheynin, Nadezhda Matveeva, Boris Sedov, Dmitry Razhivin; TOOLSET FOR SPACEWIRE NETWORKS DESIGN AND CONFIGURATION

(13) Qiang Zhou, Chunming Zhang, Hengqing Lin; DELAY GUARANTEE FOR REAL-TIME MESSAGE IN SPACEWIRE-D NETWORK

(61) Nadezhda Matveeva, Elena Suvorova, Valentin Olenev, Irina Lavrovskaya; SPACEFIBRE QUALITY OF SERVICE FEATURES SUPPORT IN A NETWORK LEVEL

1510-1640 Poster Presentations

Thursday 13th June 2013

0900-0945 Standardisation (Short Papers)

(79) Mathias Nickl, Stefan Joerg, Thomas Bahls, Barry M. Cook; TOWARDS HIGH-SPEED SPACEWIRE LINKS

(30) Takahiko Masuzaki, Minoru Nakamura, Tetsuro Kato, Yasunori Ido, Toru Sasaki; IMPLEMENTATION AND INTEROPERABILITY TESTS OF SPACEFIBRE

(63) Yu Otake, Kohei Hosokawa, Yasuhiro Sota, Takahiko Tanaka, Hiroki Hihara; PERFORMANCE EVALUATIONS AND PROPOSAL TO IMPROVE NEXT-GENERATION SPACEFIBRE PROTOCOL

0945-1045 Test & Verification (Short Papers)

(6) G. Fernάndez Berzosa, P. Rodriguez Perochena, A. Pérez Gómez, R. Regada Álvarez, L. R. Berrojo Valero, L. Basanta Alonso; SPACEWIRE INTEROPERABILITY CHARACTERISATION

(66) Brice Dellandrea, David Jameux; MOST: MODELING OF SPACEWIRE TRAFFIC

(76) Stephen Mudie, Martin Dunstan, Steve Parkes; SPACEWIRE EGSE: REAL-TIME INSTRUMENT SIMULATION IN A DAY

(85) Albert Ferrer Florit, Alberto G. Villafranca, Chris McClements, Steve Parkes; STAR-FIRE: - SPACEFIBRE DIAGNOSTIC INTERFACE AND ANALYSER

1105-1235 Missions & Applications (Short Papers)

(54) Paul Norridge, David Pecover, Joachim Poeckentrup, Stefan Thürey, Wahida Gasti, James Windsor, Michele de Meo; SPACEWIRE IN SOLAR ORBITER

(16) Christophe Cara, Modeste Donati, Eric Doumayrou, Michel Lortholary, Frederic Pinsard; FAST READOUT CCD CAMERA WITH HIGH PERFORMANCE SPACEWIRE TO PCI EXPRESS ACQUISITION BOARD

(18) Toru Sasaki, Itao Shoji, Hisayoshi Kurosawa, Tetsuro Kato, Satoshi Ichikawa, Takashi Okamoto, Taeko Seki, Mami Abe; APPLICATION OF SPACEWIRE TO NON-VOLATILE DATA RECORDER

(35) Hiroki Hihara, Koutarou Moritani, Tetsuya Masuda, Ryu Funase, Hisashi Otake, Tatsuaki Okada; INTELLIGENT NAVIGATION SYSTEM WITH SPACEWIRE FOR ASTEROID SAMPLE RETURN MISSION HAYABUSA2

(73) Alain Girard; SPACEWIRE NETWORK IN MTG SATELLITES

(44) David Juliusson; THE SWIFT CODEC DEVELOPMENT

1355-1510 Components (Short Papers)

(75) Chris McClements, Steve Parkes, Albert Ferrer, Alberto Gonzalez-Villafranca; HIGH PERFORMANCE SPACEWIRE RMAP/DMA ENGINE FOR THE CASTOR MICROPROCESSOR

(70) Jonas Ekergarn, Jan Andersson, Andreas Larsson, Daniel Hellström, Magnus Hjorth, Roland Weigand; NEXT GENERATION MICROPROCESSOR FUNCTIONAL PROTOTYPE SPACEWIRE ROUTER VALIDATION RESULTS

(49) G. Baterina, Y.Moghe, P. Francois, A. Senior; GALVANIC ISOLATION OF SPACEWIRE LINKS

(41) Gilles Rouchaud, Nigel Kellet; LOW MASS SPACEWIRE AND COPPER BASED SPACEFIBRE LINKS

(91) Keir Boxshall, Alan Senior, Sanjay Sharma; A MODULAR CONNECTOR FOR SPACEWIRE BACKPLANES

1530-1710 Networks & Protocols (Long Papers)

(27) Valentin Olenev, Irina Lavrovskaya, Ilya Korobkov; SPACEWIRE-RT/SPACEFIBRE SPECIFICATION AND MODELING

(46) Carlos Quiroz, Sandra G. Dykes, Paul Wood, Allison Bertrand; OPNET MODELER® CO-SIMULATION FOR MODELING SPACEWIRE PLUG-AND-PLAY PROTOCOLS

(92) Martin Suess, Felix Siegle; SPACEWIRE TIME CODE LATENCY AND JITTER

(78) Sandi Habinc, Anandhavel Sakthivel, Martin Suess; SPACEWIRE – TIME DISTRIBUTION PROTOCOL

Poster Presentations

(2) Christophe Delay, Stephane Humbert; 1 TBITS OF DATA SERVICED BY SPW

(3) Fabien Vigeant; SPACEWIRE VALIDATION TEST PLAN & CONFORMANCE TEST BENCH PROTOTYPING

(7) Zhou Yuan, Li Li, Zhang Jian-hua, Cui Wan-zhao, Zhao Jun-yi; USING SPACEWIRE IN A INTELLECTUALIZED DATA PROCESSOR

(12) Qiang Zhou, Lan Zhang, Hengqing Lin; REAL-TIME PERFORMANCE SIMULATION OF SPACEWIRE ROUTER WITH POLLING ARBITRATION SCHEMES

(14) Chen Xiaomin, Guo Lin, Sun Huixian; THE GENERAL SITUATION OF SPACEWIRE RESEARCH IN CHINA

(15) Guo Lin, Sun Huixian, Chen Xiaomin; A LOW-POWER SPACEWIRE CODEC IP CORE

(19) Yupeng Zhang, Zhiping Shi, Yong Guan, Xiaojuan Li, Jie Zhang; FORMAL VERIFICATION FOR SPACEWIRE DECODING BY APPLING THEOREM PROVING

(20) Nadezhda Matveeva, Elena Suvorova; LATENCY JITTER ESTIMATION AND CONTROL IN SPACEWIRE NETWORKS

(24) Dmitri Skok, Sergey Kondratenko, Aleksey Zaicev, Alexander Glushkov, Tatiana Solokhina, Vladimir Gusev, Jaroslav Petrichkovich; PHY COMPONENTS FOR PERSPECTIVE SPACEWIRE-2 INTERFACE PROTOTYPING AND EVALUATING

(25) Takayuki Yuasa, Tadayuki Takahashi, Masaharu Nomachi, Iwao Fujishiro, Fumio Hodoshima; SPACEWIRE TRAFFIC GENERATOR: A HIGHLY-SCALABLE PACKET GENERATION DEVICE

(32) Yang Chen, Mitsutaka Takada, Ryo Kurachi, Hiroaki Takada; A SCHEDULING METHOD OF RMAP PACKETS FOR SPACEWIRE-D

(36) Satoko Kawakami, Yasuhiro Takeda, Hiroki Hihara, Tetsuya Masuda, Masatoshi Ebara, Ryu Funase, Takahiro Yamada; REAL-TIME DATA RECORDING SYSTEM WITH SPACEWIRE FOR ASTEROID SAMPLE RETURN MISSION HAYABUSA2

(47) Aleksey Sakharov, Dmitri Skok, Vladimir Gusev, Tatiana Solokhina, Jaroslav Petrichkovich, Yuriy Sheynin, Elena Suvorova; RADIATION TOLERANT SPACEWIRE REMOTE TERMINAL CONTROLLER ASIC (RMR-02P)

(57) Artur Eganyan, Elena Suvorova, Yuriy Sheynin Alexey Khakhulin, Igor Orlovsky; DCNSIMULATOR – SOFTWARE TOOL FOR SPACEWIRE NETWORKS SIMULATION

(58) Ronald Castillo, Javier Almena, Alberto Carrasco, Aaron Montalvo, Oscar Gutiérrez, Manuel Prieto, Sebastián Sánchez; IMPLEMENTATION AND USE OF SPACEWIRE IN THE EPD INSTRUMENT FOR SOLAR ORBITER

(59) Koblyakova Ludmila, Oleynikova Stanislava, Khramenkova Ksenia; NETWORK MANAGEMENT ALGORITHM FOR HIGH SPEED ONBOARD SYSTEMS

(64) Masaharu Nomachi, Shuhei Ajimura, Takayuki Yuasa, Tadayuki Takahashi, Iwao Fujishiro, Fumio Hodoshima; SPACEWIRE BACKPLANE FOR GROUND EQUIPMENT

(67) Adrian Belger, Frank Bubenhagen, Björn Fiethe, Harald Michalik, Holger Michel; A SOFTWARE SOCWIRE PROTOCOL HANDLER FOR NOC MANAGEMENT

(68) Sandi Habinc, Anandhavel Sakthivel, Jonas Ekergarn, Arvid Björkengren, Richard Pender, Sven Landström, Federico Cordero, Jose Mendes, Tra-Mi Ho, Kai Stohlmann; MASCOT ON-BOARD COMPUTER BASED ON SPACEWIRE LINKS

(77) S. Jörg, M. Nickl, T. Bahls. S. Strasser; SPACEWIRE-HS HOST ADAPTER – AN FPGA BASED PCI EXPRESS DEVICE FOR VERSATILE HIGH-SPEED CHANNELS

(81) David Jameux, Antonis Tavoularis; SPACEWIRE STANDARD REVISION

(82) Stuart Mills, Alex Mason, Chris McClements, David Paterson, Iain Martin, Steve Parkes; DEVELOPING SPACEWIRE DEVICES WITH STAR-DUNDEE TEST AND DEVELOPMENT EQUIPMENT