

"Frequency Agile RF Technologies for Commercial and Defense Applications - A Contrast in Requirements???"

This workshop will be held on January 15th in conjunction with the SDR Forum's General Meeting in Tampa, Florida. The goal of the workshop is to explore the requirements for radio systems supporting operation over a wide range of spectrum bands in both the commercial and defense markets and to define the state of the art in RF and IF technologies that address those requirements. Included in this workshop will be presentations by vendors in focus areas that include RF Integrated Circuits, broadband A to D and D to A devices, agile RF and IF filtering technologies as well as radio system providers delivering agile RF solutions. The workshop will further explore whether agile RF technologies developed for commercial markets can be leveraged into defense applications, and vice versa.

The agenda for this workshop is as follows:

- 8:30 to 8:45 Opening remarks – Bruce Fette, Chief Scientist of General Dynamics C4S and Chair of the SDR Forum Technical Committee
- 8:45 to 9:30 Defense Keynote, "Why Agile RF Should be the Next Great Thing" - Preston Marshall, Program Manager at DARPA
- 9:30 to 10:15 Commercial Keynote, "Frequency-Agile RF Technologies in Commercial Communications", Fred Martin, Motorola
- 10:15 to 10:30 Coffee Break
- 10:30 to 10:50 "High Performance RF Front Ends for SDR Platforms and Systems", Phil Rezin, Softronics Ltd.
- 10:50 to 11:10 "Transceiver API Support for Agile RF Technologies", Eric Nicollet, Thales
- 11:10 to 11:30 "Design & Manufacturing Issues Associated with an Agile Military Software Radio", Alan Hand, Hand Technologies
- 11:30 to 12:15 Morning Panel Discussion – "What will be the market demand for frequency agile RF technologies in the various commercial and defense markets".
- Moderator – Lee Pucker, SDR Forum
 - Preston Marshall, DARPA
 - Joe Mitola, DARPA
 - Eric Nicollet, Thales Communications
 - Fred Martin, Motorola
 - Joy Lasker, Georgia Tech
- 12:15 to 1:45 Networking Luncheon – During lunch there will be table top displays and demonstrations from the following companies:
- Terocelo
 - Softronics
 - Paratek
 - Hypres
 - DataSoft
 - Hand Technologies
- 1:45 to 2:30 Afternoon Keynote, "Multi-standard Base Stations Enabled by Cognitive Radio Modules" – Andreas Pascht, Alcatel-Lucent Research and Innovation, Stuttgart
- 2:30 to 2:50 "Continuously Tunable RF Front End Technologies", Joseph Gentile, Paratek
- 2:50 to 3:10 "Frequency Agile Transceivers – To Be or Not To Be", Oleg Panfilov, Terocelo
- 3:10 to 3:30 "The All Digital Base Station using Digital RF and SDR technology", Richard Hitt, Hypres

- 3:30 to 3:45 Coffee Break
- 3:45 to 4:05 “The Softransceiver RFIC, a Programmable Transceiver Platform for Commercial Wireless Applications”, Russel Cyr, Bitwave Semiconductor
- 4:05 to 4:25 “Miniaturized Frequency Agile Filters”, Roger Paulsen and Matt Spencer, DataSoft
- 4:25 to 4:45 “Antennas for Fixed and Mobile Agile and Cognitive RF Systems”, Marshall Cross, Megawave
- 4:45 to 5:30 Closing Panel Discussion – “What frequency agile RF technologies have the ability to address the market demand in both commercial AND defense spaces?”
- Moderator – Bruce Fette, General Dynamics
 - Jim Shea, Paratek
 - Russel Cyr, Bitwave Semiconductor
 - Richard Hitt, Hypres
 - Oleg Paniflov, Terocecelo

The Forum plans to use this workshop to provide input to a technology report being developed by SDR Forum representatives defining state of the art in agile RF technologies. This report will be used by the Forum’s markets and regulatory committees to advance their agendas in the upcoming year.