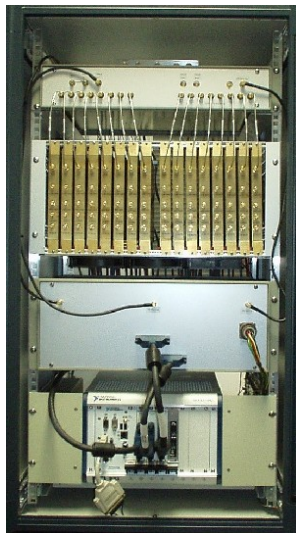


Matrix Channel Measurement System (MCMS)

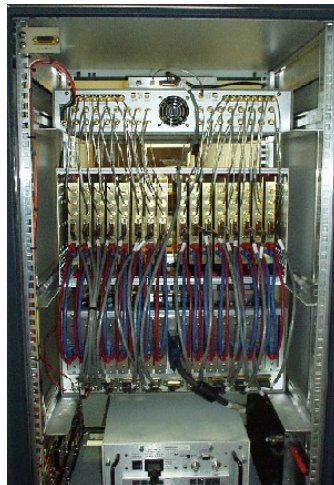
NSF Major Research Instrumentation (MRI) Project

Designed for MIMO Channel Measurements & MIMO Communications System Testing

- 4 Independent Transmit Channels
- 16 Independent Receive Channels
- 250-6000 MHz Tuning Range



Multichannel Receiver (Front)



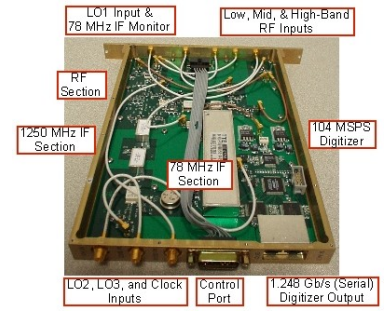
Multichannel Receiver (Back)



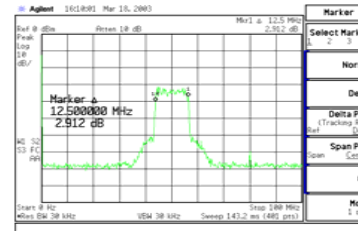
Portable & Battery Powered



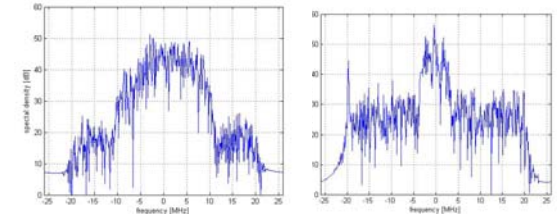
Multichannel Transmitter (Front)



Custom Downconverter/ Digitizer



Arb. waveform Generation



High Dynamic Range RF Signal Capture

- Novel serial bus (LVDS) data aggregation scheme
- 17 Altera Stratix-Class FPGAs
- Quad ADSP21160 “Hammerhead” DSP section

<http://www.ece.vt.edu/~swe/mcms>

