

2008 Summary of Research Reports

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Project: Broadband Cognitive Communications via Interleaved ADCs
Sponsor: NRL

Statement of Work:

This project will involve exploring the development of a low-cost, broadband software-defined/cognitive receiver capable of operating with greater than 100 MHz RF bandwidths and at data rates of up to 200 Mbps. The primary objective will be to determine the viability of interleaving two or more high sampling rate/high bit depth Analog-to-Digital Converters (ADCs) in order to directly digitize RF/high IF signals. A secondary objective will be to investigate interfacing the ADCs with a variable data rate processor in order to create a cognitive network which can custom-tailor the network resources to meet the specific needs of individual users.