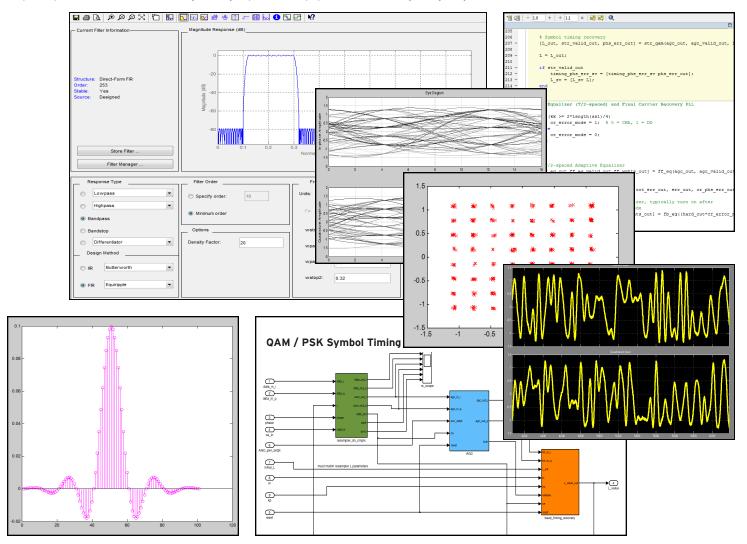


## **DSP Design Services**

FPGA-based design and development for DSP and digital communications

EDT offers full FPGA-based design, development, and integration services for digital signal processing (DSP) and digital communications systems. Applications include multirate, multichannel designs; wideband / multichannel software-defined radio (SDR); high-speed filtering; adaptive signal processing; and real-time signal acquisition and analysis. Contact us!

The figures below depict just a sampling of EDT DSP design capabilities. In a counterclockwise spiral from top right, they show: M-code; FDATool GUI; LPF impulse response plot; implementable model for QAM timing recovery loop; 16-QAM scope plot; constellation diagram; eye diagram.



## Services

- Analysis, modeling, and FPGAbased implementation of digital communication systems
- Algorithm development
- DSP IP development / integration

## Tools

- MathWorks Matlab / Simulink
- Altera DSP Builder
- Xilinx System Generator
- Xilinx Vivado HLS (C to HDL)
- C, M-code, Verilog, VHDL

## Custom Functions

- Multirate filters
- Up / down converters
- Arbitrary resamplers
- Adaptive equalizers
- Timing / carrier recovery loops