Companies building next-gen communication systems rely on complex digital signal processing (DSP) systems that transform and filter signals so other applications can respond.

DornerWorks helps those companies unlock the potential of their systems with expert DSP engineering services.

**VERSATILE DEVICE EXPERTISE**
- Zynq UltraScale+
- RFSoC
- Zynq 7000
- Artix
- Kintex
- Virtex
- RTG4
- ARRIA 10

**SIGNAL TRANSLATION**
- Transformation
- Filtering
- Windowing
- Radar Signal Processing

**SYSTEM MINIATURIZATION**
- Reduce the size, weight, and power (SWaP) of your advanced radar systems
- Direct signal conversion with RFSoC technology

**SPEED & TIMING**
Interface with different devices knowing your data will be processed and fused as needed, when needed.

**GROW YOUR BUSINESS WITH CONFIDENCE**
You can scramble to develop complex technology and meet market deadlines with a product that doesn’t work the way you want it to, or you can rely on the guidance of expert engineers who have been there before, and can bring clarity to your development.

DSP engineering services from DornerWorks will give you the freedom to focus on growing your business.

SCHEDULE A CONSULTATION
DornerWorks.com | +1.616.245.8369
A defense contractor wanted to miniaturize the SWaP-C and improve response time of their advanced radar systems that detected and mitigated oncoming airborne threats.

The design DornerWorks delivered was based on one of the first three Xilinx Zynq UltraScale+ RFSoC boards ever available. The RFSoC system helped the client receive and process data almost instantaneously:

- 12 direct digital synthesis modules drive 12 samples per AXI-Stream to RF data converter DAC
- Costas codes
- Software-controllable

ADC at 4 GSPS with complex output, decimation by 8, with one sample per AXI-stream at 500 MHz from RF data converter

DSP pipeline:
- FIR filter
- Equalizer
- Doppler FFTs
- Data timestamped at detection

Digital signal processing can be complicated, but it doesn’t have to slow you down. Contact us about DSP engineering services today and replace your worries with confidence!

DornerWorks is a professional, flexible, and an essential part of our team.

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