# OpenVPX Reference Platform Handles High-bandwidth, Intense Computing Reqs

Elma Electronic Inc. now offers the VPX-300, an OpenVPX reference platform designed to ensure interoperability among 3U VPX boards used within high performance, compute intensive applications. The OpenVPX backplane profile provides two separate clusters through a data and control plane switch, handling Gigabit Ethernet and PCIe links, respectively. The clusters are designated Front End, which contains a processor board and the FPGA elements, and Back End, which contains another processor board, graphics and a GPGPU (general purpose computation on a graphics processing unit) element. The 3U VPX development platform is targeted at applications requiring an FPGA front end and supporting pipelined high speed processing for demanding implementations such as radar signal processing, image processing and other applications that require high bandwidth signal processing and data communications. Elma's new fully-integrated VPX system is designed around a Virtex-6 FPGA based front end processor (FEP) card and uses a 7-slot backplane profile per VITA 65 BKP3-CEN07-15.2.3-n. The front end FPGA cluster performs incoming digital signal processing coupled via fabric to a back end data cluster. The two processing segments in the architecture feature a 5-slot FPGA front end processing cluster and a 3-slot back end compute cluster. The system also features a Core2 Duo single board computer (SBC), high performance graphics card and storage module.

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