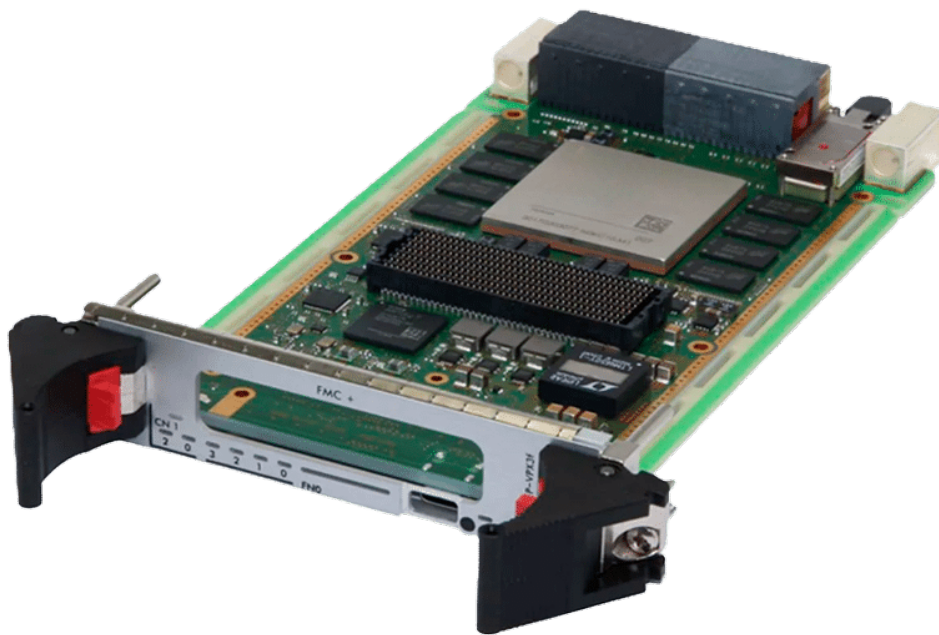


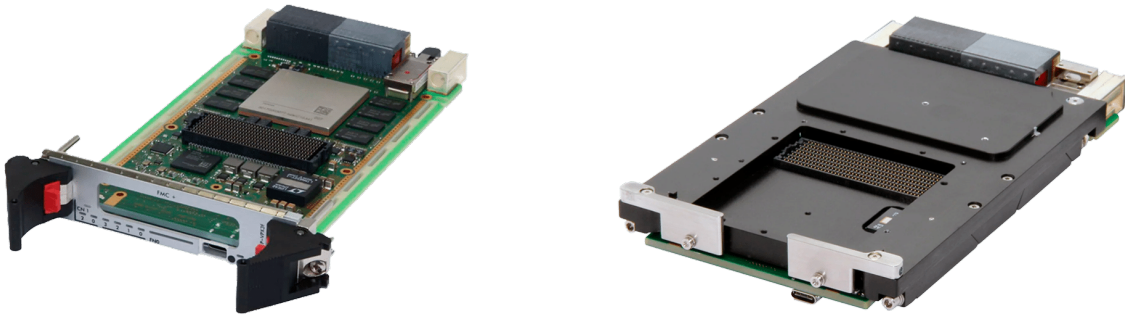
Blue Line 3U VPX FPGA board FEP-VPX3f



BLUE LINE
IT for Demanding Environments

Blue Line A/S | Kappa 8 | 8382 Hinnerup, Denmark
T +45 8678 5000 | www.blue-line.com

Blue Line 3U VPX FPGA board FEP-VPX3f



Highlights

Blue Line FEP-VPX3f is a rugged 3U VPX VITA 66.5 FPGA board with FMC+ site, based on the latest AMD 20nm FPGA family. The board enhances the front-end processing (FEP) product line of Blue Line, as one of the first VITA 66.5 compliant FPGA boards on the market today.

The AMD Kintex UltraScale FPGA provides a better performance/power consumption ratio compared to previous FPGAs, and makes the board the perfect solution for applications requiring DSP-intensive processing in a 3U VPX form factor.

The board and other Blue Line building blocks (Intel and PowerPC SBCs, Ethernet switches & routers, FMC) running our signal processing reference design, are ideal platforms for users wishing to streamline development and concentrate their efforts on core strategic tasks.

Reduce cost and time spending with our global partner model based on your specific requirements. Let Blue Line take responsibility for delivery on time. Blue Line's ultimate goal is to help our customers get peace of mind by handling all relevant details such as securing the right configuration, software setup, mounting, packaging, labeling, etc. Ask for references from your industry.

- 3U VPX FPGA board
- 3U VPX VITA 66.5 FPGA board with FMC+ site
- 1 x AMD Kintex UltraScale FPGA
- 2 x DDR4 banks (up to 4GB each)



BLUE LINE
IT for Demanding Environments

Blue Line A/S | Kappa 8 | 8382 Hinnerup, Denmark
T +45 8678 5000 | www.blue-line.com

Blue Line 3U VPX FPGA board FEP-VPX3f

- 1 x AMD Artix 7 control node
- 1 x FMC+ site (VITA 57.4)
- FMC connector: 24x GTH links, 80 or 160 differential pairs, clocks (LVDS diff)
- Wide temp -40 to 85°C
- JTAG ports for direct FPGA configuration through engineering kit
- The hardware platform is compatible with AMD development tools Vivado, Platform Cable, etc.
- Customization according to your requirements

Specifications

Model Type

3U VPX System

Cooling

Air cooled

Conduction cooled

Environment

Conduction cooled

-40°C to +85°C

Operating altitude

Up to 5G[20..2000]Hz, up to 40G[hock 1/2 Sin 11ms]

Humidity

5% - 90% RH (non-condensing)

Processor

AMD Kintex™ UltraScale™ KU060, KU85 or KU115

RAM

Two banks of DDR4: 64-bit wide, up to 4GB each

Storage



BLUE LINE
IT for Demanding Environments

Blue Line A/S | Kappa 8 | 8382 Hinnerup, Denmark
T +45 8678 5000 | www.blue-line.com

Blue Line 3U VPX FPGA board FEP-VPX3f

- 1 * 128 MBytes of QSPI flash (user data storage)
- 2 * 128 MBytes of QSPI flash (bitstreams storage)

Front Input / Output

FMC+ VITA 57.4 interfaces

- 6 * GTH x4 links
- 80 differential pairs
- 6 reference clocks

Rear Input / Output

P0 connector

- VS3, 3V3_AUX, VS1 (+12V for FMC)
- REF_CLK
- I2C bus, utilities (SYSRESET, NVMRO, GAX)

P0 + P1A connector

- 2 x 4-lane fabric ports
- PIC RS232

P1B + P2A connector

- 1 x 4-lane fabric port
- 28 GPIO's

P2B connector (VITA 66.5)

- LightConex™ LC 150G optical engine
- 12Tx + 12Rx @ 12.5 Gbps/lane
- 24 fiber Multimode interface

Input / Output



BLUE LINE
IT for Demanding Environments

Blue Line A/S | Kappa 8 | 8382 Hinnerup, Denmark
T +45 8678 5000 | www.blue-line.com

Blue Line 3U VPX FPGA board FEP-VPX3f

28 GPIOs from FPGA on P2, usable as single-ended or differential pairs

Operating System

Linux

VxWorks

Accessories Optional

Rear transition module & engineering kit

Warranty and After Sales Support

Standard 1 year (option for 3 years)



BLUE LINE
IT for Demanding Environments

Blue Line A/S | Kappa 8 | 8382 Hinnerup, Denmark
T +45 8678 5000 | www.blue-line.com