DATASHEET

LIQUID FLOW THROUGH (LFT) TEST AND DEVELOPMENT CHASSIS

VITA 48.4 DEVELOPMENT & DEMO PLATFORM

ELMA
Your Solution Partner

DESCRIPTION

The Liquid Flow Through (LFT) VITA 48.4 Test and Development Chassis is an advanced platform designed for 6U VPX cool plug-in cards with high power densities of 200W and up. Engineered in strict conformance with the VITA 48.4 mechanical standards, this chassis provides a rugged, modular design for rapid prototyping and testing of VPX systems that require very high performance payload cards, where air and conduction cooling aren't enough.

The chassis incorporates Elma's proven 101VPX606P-9X12R backplane for robust power and signal distribution. LFT connectors interface directly with VITA 48.4 plug-in cards to enable accurate evaluation of thermal and electrical performance in real-world conditions. An external Coolant Distribution Unit (CDU), supplied by others, is required for operation and integration into liquid-cooled test environments. Designed to work with all major manufacturers LFT Plug-in cards.

Front View

RearView

Angled view

Features

- Designed to accommodate 6U VPX payloads and RTMs in alignment with VITA 48.4 specifications for liquid cooling
- 101VPX606P-9X12R high-performance backplane for dependable power and signal routing across 6 payload slots
- Designed for high-performance thermal management through integrated liquid cooling channels. Note that an external CDU is required to operate the Liquid Flow Through cooling
- Enables rapid system configuration and testing with accessible front and rear panels and user-friendly module installation
- Includes an internal 1400w power supply
- Internal V46.11 chassis manager monitoring voltages and temperature

* Images shown with RTMs. RTMs are not included with base unit. Contact sales for customization options.

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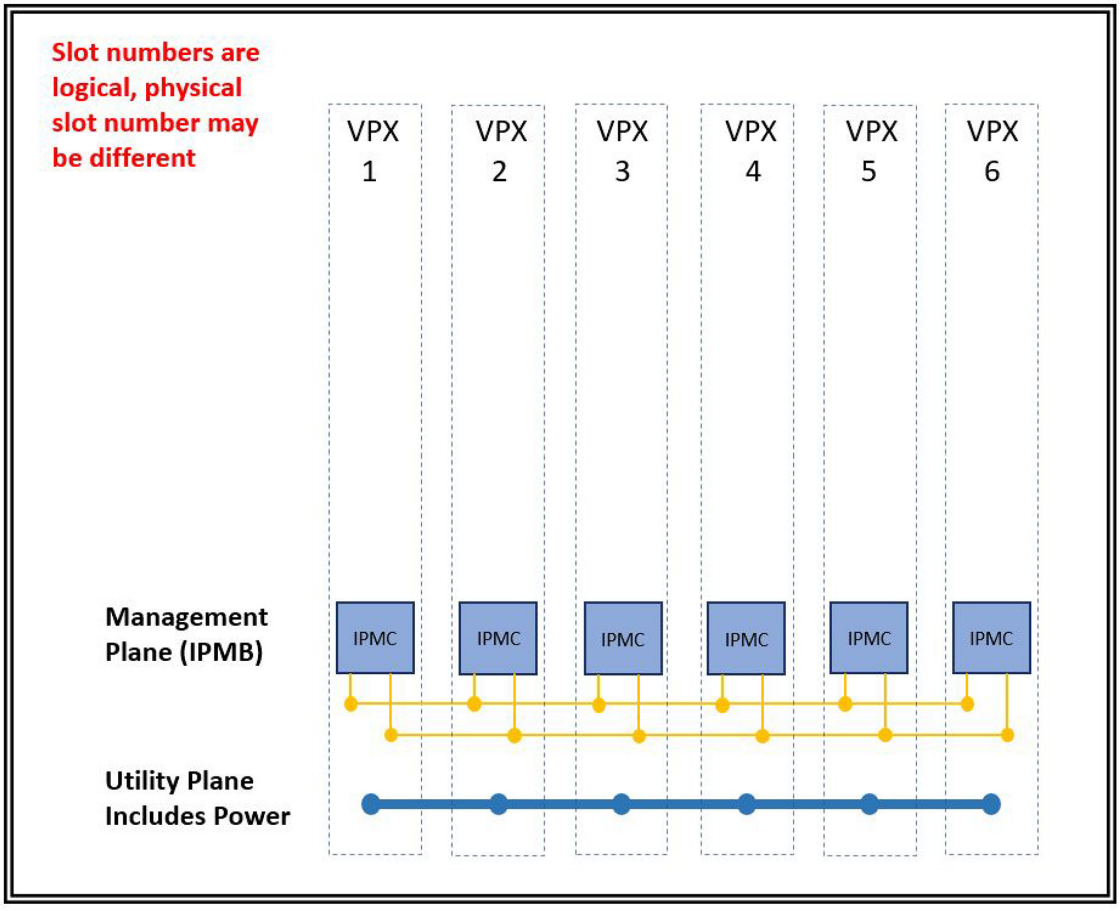
BACKPLANE FEATURES

- 101VPX606P-9X12R power and ground backplane
- Compliant to the latest VITA 46 / 65 specifications
- Max data rate is 10 Gbps
- 3.3V, 5V, 12V, 3.3V_AUX, +12V_AUX, and -12V_AUX power
- P0-P6 pins are user-defined
- NVMRO, SYSRESET#, SYSCON# and maskable reset are supported

BACKPLANE PROFILE



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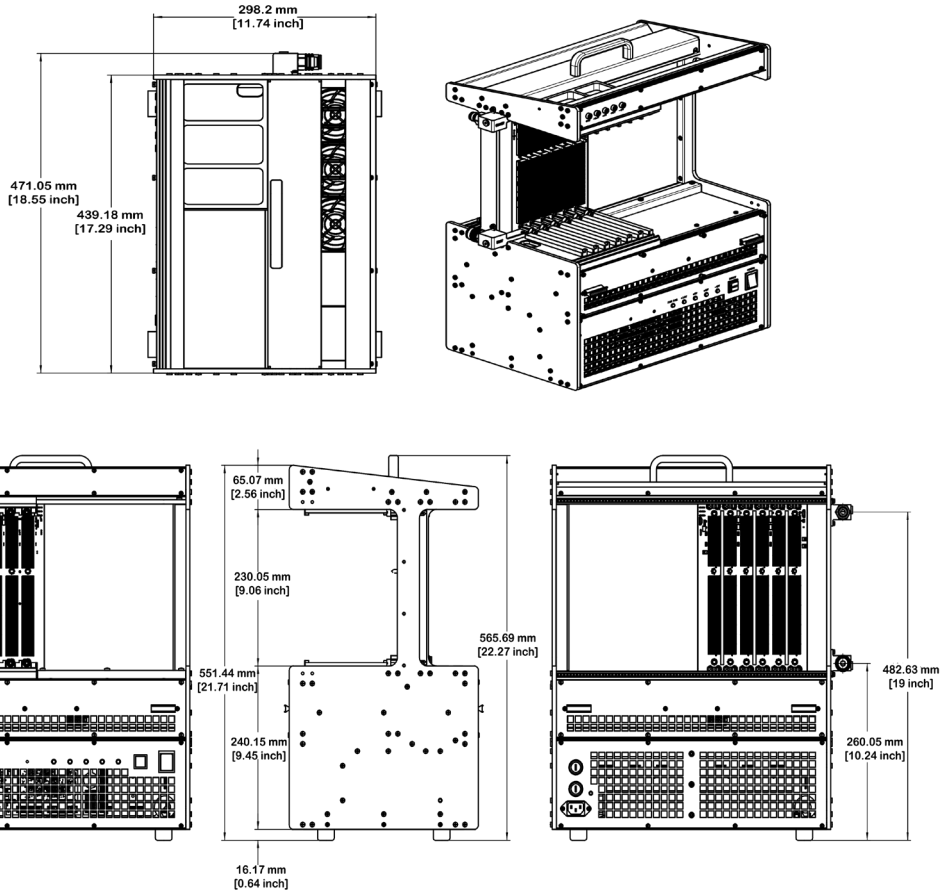
LINE DRAWING



APPLICATIONS:

This chassis is ideal for mission-critical systems, particularly in defense, Aerospace, and industrial applications, where high-performance cooling and modular test environments are necessary.

- Sensor payloads
- Electronic Warfare (EW)
- C5ISR
- Target tracking and display
- Navigation Systems

RELATED PRODUCTS

Elma's 48.4 Liquid Flow-Through ATR Platform is a deployable LTF chassis to transfer your LFT test and development configuration. A number of 6U LFT plug-in cards are available from major manufacturers.

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ELECTRICAL SPECIFICATIONS

Input Voltage	115 - 240 VAC
Input Current	10.0A - 15.0A max.
Input Frequency:	47 - 63 Hz

OUTPUT SPECIFICATIONS

Voltage	+5V	+12V	+3.3V	-12V
Max Load	36.0A	116.0A	31.0A	0.5A
Min Load	1.0A	2.0A	1.0A	0.0A
Peak Load	- - -	- - -	- - -	- - -
Regulation	±5%	±5%	±5%	±5%
Ripple & Noise	50mV	120mV	50mV	120mV

*Power module total output power of +5V and 3.3V not exceed 210W

*Power module total output power not exceed 1400W for 180~264V

*Power module total output power not exceed 1200W for 103~132V

*Power good signal: ON delay 100ms to 500ms, OFF delay 1ms, HOLD UP time: 17ms minimum at full

*Load & nomimal input voltage

ORDER INFORMATION

Height	Slots	Description	Model Number	Backplane Model #
6U	6-Slot	VITA 48.4 Liquid Flow Through Test and Development Chassis	39E6AVXC8YCNNB	101VPX606P-9X12R

Please contact Sales for customization options for this chassis.

Please contact our sales team for more details.

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