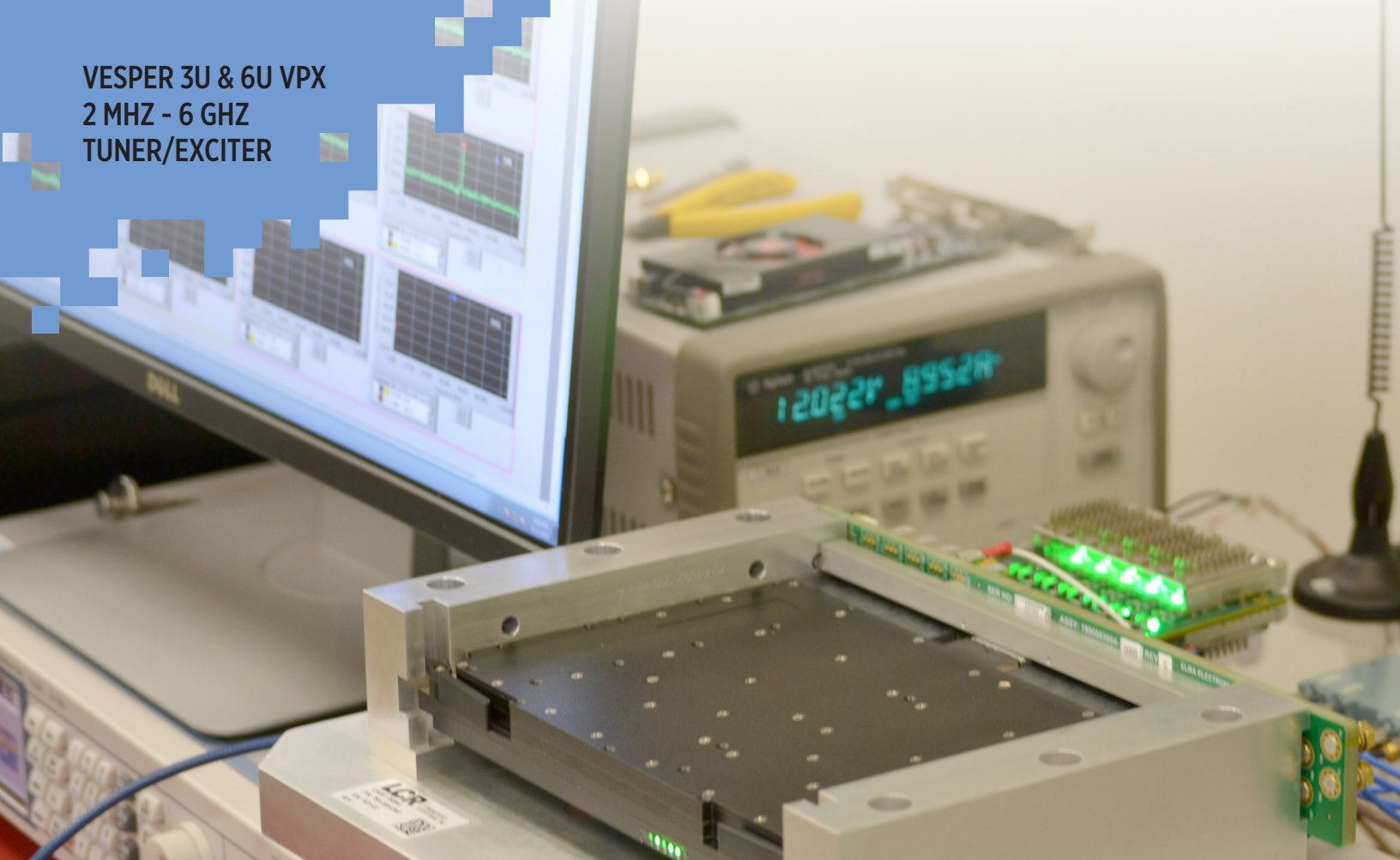


VESPER 3U & 6U VPX
2 MHz - 6 GHz
TUNER/EXCITER



A SIGNIFICANT ADVANCEMENT IN RF PERFORMANCE & DENSITY FOR MODULAR, OPEN SYSTEM ARCHITECTURES

LEADING THE WAY IN RF EXCELLENCE.

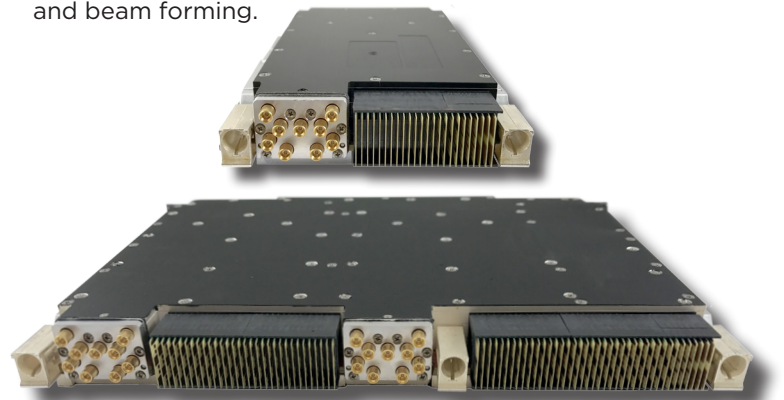
The Vesper product line can be flexibly configured to support multiple customer requirements, and packs more features in a small, standard form factor than any other solution available today. Equipped with **exceptional RF signal fidelity, low spurious content and high dynamic range**, critical missions can be confident that weak signals will be detected and not masked by spurious artifacts in congested signal environments.

Vesper's **modular and open architecture design** is a low-risk approach when integrated into a system's final design. Vesper employs VITA 67.3 blindmate connectors for reduced mean time to repair and improved modularity. Vesper's compliance of VITA standards allows it to be **easily integrated** into larger systems.

Our commitment to open architecture standards results in low-risk solutions for our customers. We serve as committee chairman for multiple VITA standards and are leading participants of the CMOSS, HOST and SOSA

efforts. This critical involvement ensures our products are interoperable across all military branches, program offices, and commercial entities.

Vesper can be easily integrated into systems performing military and commercial operations such as **SIGINT, ESM, EW, spectrum monitoring, spectrum analysis and test and measurement**. Vesper is optimal for operations requiring high channel density, such as direction finding and beam forming.



VESPER 3U & 6U VPX 2 MHz - 6 GHz TUNER/EXCITER

HIGHLIGHTS

Performance Specifications

- RF Tuner and Transmit channels each with 2 MHz to 6 GHz frequency range
- 100 MHz digitized IF per channel
- Each channel can operate independently or phase coherently within a Vesper card or in a system comprised of multiple Vesper cards
- Phase coherency supports up to 54 channels from six 6U VPX cards and up to 16 channels from four 3U VPX cards
- Phase coherency by LO and reference distribution
- Improved phase noise performance of +10 dB in coherent channel operation for the 6U VPX card
- Multiple IF bandwidth options and HF bypass mode
- Optional DDC & DUC loads
- Multiple slot profile supports
- Aurora and 10GBASE-KR data transfer protocols

Mechanical Characteristics

- Dense channel packaging of multiple channels with high performing features allows for less hardware on platforms
- Modular, configurable and open architecture design greatly simplifies and extends a current system's viability
- Scalable architecture with a variety of tuner/exciter channel mixes possible

VESPER 6U VPX PRODUCT LINE

NOMENCLATURE	DESCRIPTION
SI-9173/CC-2	Eight receive channels
SI-9173/CC-3	Nine receive channels and one transmit channel
SI-9173/CC-5	Nine receive channels
SI-9173/CC-6	Eight receive channels and one transmit channel
SI-9173/CC-7	Six receive channels and one transmit channel
SI-9173/CC-8	Six receive channels
SI-9173/CC-11	Seven receive channels

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EASY SYSTEM INTEGRATION

3U or 6U VPX 1-inch pitch form factor:

- VITA 65 compliant
 - SLT6-PAY-2F1D1H2U2T1H-10.6.1-n
 - SLT3-PAY-1F1U1S1S1U1U1F1H-14.6.11-n
 - SLT3-PAY-1F1U1S1S1U1F2U1H-14.6.12-n
- VITA 67.3 backplane blind mate antenna inputs
- VITA 48.2 conduction cooled
- Multiple external timing reference modes via VPX backplane input: 1PPS, 10 MHz, 100 MHz, GPS

Standardized control and data networking:

- 1 Gigabit Ethernet primary control interface
- Digitized IF packetized in accordance with VITA-49 VRT standard



Vesper phase coherency by reference distribution. Built in LO distribution also available.

No additional VPX card required to achieve phase coherency. Phase coherency between channels is achieved by precision Reference Distribution. The image reflects phase coherency between Vesper 6U VPX cards. Phase coherency between Vesper 3U VPX cards is achieved similarly.

VESPER 3U VPX PRODUCT LINE

NOMENCLATURE	DESCRIPTION
SI-9172/CC-1	Four receive channels
SI-9172/CC-2	Four receive channels and one transmit channel
SI-9172/CC-4	Two receive channels and one transmit channel

Contact Leonardo DRS for additional 3U VPX and 6U VPX product instantiations.