Herrick Technology Laboratories, Inc.  
Price List  
Effective September 2020

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General Information

Pricing and Orders:
Pricing provided in this document is “Most Favored Customer or U.S. Government” pricing. Additional discounts may be available for quantities greater than those listed. While every effort has been made to ensure the accuracy of this document, HTL reserves the right to change pricing, specifications, options and accessories without notice. Please contact your HTL representative or Marketing@herricktechlabs.com for a quotation and the latest technical data.

Delivery:
FOB Origin. Delivery of the products contained in this document is typically accomplished within 120 to 180 days after receipt and acceptance of an order. HTL recognizes that schedule requirements vary and in many cases is able to accommodate. Purchase of the optional SAASM GPS requires proof of having COMSEC/STARS account and demonstrable ability to handle SAASM devices at the time of delivery. Please contact your HTL representative or Marketing@herricktechlabs.com with your requirements.

Payment Terms:
As a small business, HTL requests performance-based payments per FAR-32-104(b)(c)(d). Payment schedules will be negotiated prior to award.

Warranty:
HTL warrants products to be free from defects in materials and workmanship for a period of two (2) years from the date of shipment.

Export:
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Fax: (301) 972-1299
Marketing@herricktechlabs.com

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HTLx Core Module; HTLx-U Overview
Miniature Quad Transceiver

**DESCRIPTION**
Small Form-Factor Multichannel HF/VHF/UHF/Microwave Transceiver
The HTLx is a 4 channel Software Defined Radio designed to support various ES and EA missions.

- Extended frequency range 2 MHz-18000 MHz
- 80 MHz IFBW (320 MHz total coverage)
- 80+dB SFDR
- 4 Phase-Coherent or Independently tuned Transceivers (remotely configurable)
- Integrated commercial GPS with INS, optional SAASM, low noise CSAC.
- High performance FPGA including integrated ARM9 cores with NEON coprocessors enable high performance signal processing applications against modern waveforms.
- 2x10GbE Ethernet ports for high speed data transfer.
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- Wideband recorder Interface port.
- Optional Removable Media Module (RMM)
- Open Architecture including an SDK with Board Support Package to enable rapid development of new capabilities.
- HTLx-U is the HTLx core integrated in the Universal tactical package, which is ideal for rugged mobile applications where IP67 water-immersion resistance is not required.

## HTLx Pricing and Options

### Miniature Quad Transceiver

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number / Option Number</th>
<th>Description</th>
<th>Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Miniature Quad VHF/UHF/Microwave Transceiver. Core Module without SAASM, Network boot ready</td>
<td>1 to 5 6 to 15 16 to 25</td>
</tr>
<tr>
<td>HTLx Core without SAASM unencrypted</td>
<td>HTLx-101150001</td>
<td></td>
<td>$93,500.00 $88,825.00 $86,955.00</td>
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<td>HTLx Core with SAASM unencrypted</td>
<td>HTLx-102150002</td>
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<td>HTLx-U without SAASM unencrypted</td>
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<td>$108,150.00 $102,742.50 $100,579.50</td>
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<table>
<thead>
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<th>Model</th>
<th>Description</th>
<th>Current Price</th>
<th>Previous Price</th>
<th>Export Price</th>
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<tr>
<td>HTLx-U with SAASM unencrypted</td>
<td>Miniature Quad VHF/UHF/Microwave Transceiver. Core Module mounted in the Universal Enclosure with SAASM. Network boot ready.</td>
<td>$114,650.00</td>
<td>$108,917.50</td>
<td>$106,624.50</td>
</tr>
<tr>
<td>HTLx-U without SAASM encrypted</td>
<td>Miniature Quad VHF/UHF/Microwave Transceiver. Core Module mounted in the Universal Enclosure with RMM and without SAASM</td>
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<td>$104,737.50</td>
<td>$102,532.50</td>
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<td>HTLx-U with SAASM encrypted</td>
<td>Miniature Quad VHF/UHF/Microwave Transceiver. Core Module mounted in the Universal Enclosure with RMM and with SAASM</td>
<td>$116,750.00</td>
<td>$110,912.50</td>
<td>$108,577.50</td>
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<tr>
<td>HTLx-U/RMM</td>
<td>Removable Media Module for HTLx-U</td>
<td>$2,100.00</td>
<td>$2,100.00</td>
<td>$2,100.00</td>
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</table>

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**HTLx-T2 Overview**

**Miniature Quad Transceiver**

**DESCRIPTION**

**Small Form-Factor Multichannel VHF/UHF Transceiver**

The HTLx-T2 is a 4 channel Software Defined Radio designed to support various ES and EA missions in the tactical environment.

- Extended frequency range 2 MHz-18000 MHz
- 80 MHz IFBW (320 MHz total coverage)
- 80+dB SFDR
- 4 Phase-Coherent or Independently tuned Transceivers (remotely configurable)
- Integrated commercial GPS with INS, optional SAASM, low noise CSAC

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- High performance FPGA including integrated ARM9 cores with NEON coprocessors enable high performance signal processing applications against modern waveforms
- 2x10GbE Ethernet ports for high speed data transfer
- Wideband recorder Interface port
- Optional Removable Media Module (RMM)
- Open Architecture including an SDK with Board Support Package to enable rapid development of new capabilities
- Environmentally rugged electronics enclosure qualified for IP67 water immersion at 1 meter for 30-minute duration

**HTLx-T2 Pricing and Options**

**Miniature Quad Transceiver**

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number / Option Number</th>
<th>Description</th>
<th>Unit Price</th>
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</thead>
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<td></td>
<td>1 to 5</td>
</tr>
<tr>
<td>HTLx-T2 without SAASM</td>
<td>HTLx-T2101100006</td>
<td>Tactical Miniature Quad VHF/UHF Transceiver 2 MHz to 18 GHz with RMM without SAASM</td>
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<td>6 to 15</td>
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<td>$111,321.00</td>
</tr>
<tr>
<td>HTLx-T2 with SAASM</td>
<td>HTLx-T2102100004</td>
<td>Tactical Miniature Quad VHF/UHF Transceiver 2 MHz to 18 GHz with RMM, with SAASM</td>
<td>$126,200.00</td>
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<td>HTLx-T2/RMM</td>
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<td>Removable Media Module for HTLx-T2</td>
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<td>6 to 15</td>
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<td>$2,000.00</td>
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Effective September 2020
DF1/DF2 Overview
Switched 4 Element 20 MHz-6 GHz DF Antenna

DESCRIPTION
Switched 4 Element 20 MHz-6 GHz DF Antenna
- 20 MHz – 6 GHz Coverage
- DF Accuracy < 5 degrees
- 2 Channels: 1 Switched 4 Element + 1 Omni
- Low SWAP
- Supports On-the-Move (OTM), At-the-Halt (ATH), and Fixed-Mount Collection & Geolocation
- Quick-Connect single connector and coupling nut mating

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### DF1/DF2 Pricing and Options

**Switched 4 Element 20 MHz-6 GHz DF Antenna**

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<th>Part Number / Option Number</th>
<th>Description</th>
<th>Unit Price</th>
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<td><strong>DF1</strong> Switched 4 Element 20MHz-6GHz DF Antenna with Carrying Case</td>
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<td><strong>6 to 15</strong></td>
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<td>$37,952.50</td>
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<td><strong>16 to 25</strong></td>
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<td><strong>DF2</strong> Switched 4 Element 20MHz-6GHz DF Antenna with improved EW protection with Carrying Case</td>
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<td>$37,153.50</td>
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<td>DF2 with aluminum bottom plate</td>
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<td>Assembly, Antenna, DF2, w/ Al Bottom-Mount Plate (w/ 4 SMA &amp; Circ-CTRL) with Carrying Case</td>
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<td>$39,950.00</td>
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<td>$37,153.50</td>
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<tr>
<td>Monopod 6'</td>
<td>910-00046-001</td>
<td>Telescopic Monopod, integrated 6’ (OAL) radio-DF interface cable (RF, Power, &amp; Control)</td>
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<td>Monopod 12'</td>
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<td>Telescopic Monopod, integrated 12’ (OAL) radio-DF interface cable (RF, Power, &amp; Control)</td>
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<td>Fixed-Mount 6'</td>
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<td>$5,719.50</td>
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<td>Fixed Mount 12'</td>
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<td>Assy, DF Interface, Fixed-Tube, 1/4-20 Mounting, 12’</td>
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<td>Breakout Cable</td>
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<td>Breakout (MIL-CIRC) to SMA Cable Kit to be used with HTLx-U</td>
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HPACK-T2 Overview
Quad Transceiver Manpack System

DESCRIPTION
HPACK System: Modular and expandable system of soldier-worn, portable, rugged SIGINT system components which can be configured to meet various Manpack system mission requirements.

- Next generation manpack SIGINT Transceiver System is centered around the HTLx-T2 which is based on the HTLx small SWaP-C Software Defined Radio (SDR) wideband transceiver.
- Manpack System is designed to meet the rugged tactical and environmental demand of dismounted and true OTM missions.
- Manpack System provides everything needed to perform Collection and Geolocation missions in a single package for standalone operations or as part of distributed a processing system
- Manpack (one man carry) for OTM and ATH operation

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- Full SIGINT mission support, including:
  - Detection, Identification, Copy and Dissemination of TAS and TCS
  - Electronic Support (ES) and capable of Special Purpose Electronic Attack (SPEA)
- Geolocation
  - Single sensor DF, OTM and ATH
  - Contributor to TNG network by acting as JICD 4.2 TDOA/FDOA collector node or by providing complete geo solutions within a network of cooperative sensors
- Primary user interface is Getac T800, rugged Windows tablet
  - Optional Android GOTS open framework ATAK interface
- Interoperable with COTS MANET and GOTS COMMs devices

**HPACK-T2 Pricing**

Quad Transceiver Manpack System

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number / Description</th>
<th>Unit Price</th>
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</thead>
<tbody>
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<td></td>
<td>1 to 5</td>
</tr>
<tr>
<td>HPACK-T2</td>
<td>HPACK-102200003-2 HTL Tactical Manpack ESM System</td>
<td>$194,500.00</td>
</tr>
</tbody>
</table>

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**DR-4 Overview**

**Small Form-Factor Wideband Recorder**

**DESCRIPTION**

Small Form-Factor Wideband Recorder

The DR-4 is an SSD array which is interoperable with multiple HTL radio transceivers to support a variety of recorder-based ConOps.

- Interoperable with HTLx & HTLw based systems to provide RF record/RF playback capability from 2 MHz to 18 GHz
  - HTLx: Record/playback one to four 80 MHz channels
  - HTLw: Record/playback one 1000 MHz channel
- Recorded data is precision time-stamped
- Low SWaP recorder: 2U, 3.47”H x 5.65”W x 9.5”D, 3.4 lbs. (with SSDs), 50W typical

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- Four removable COTS 2.5” PCIe NVMe SSDs
- Selectable Recording Bandwidth:
  - HTLx: 80, 70, 60, 50, 40, 30, 20, 18, 10, 5 and 1.25 MHz
  - HTLw: 1000, 500, 250, and 100 MHz
- Thunderbolt 3.0 Data Offload

## DR-4 Pricing and Options
Small Form-Factor Wideband Recorder

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number / Option Number</th>
<th>Description</th>
<th>Unit Price</th>
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<tr>
<td>DR-4</td>
<td>DR4-2000001</td>
<td>Small Form Factor Wideband Recorder Chassis only. Does not include SSD’s. Qty 4 SSD’s required (see SSD options below).</td>
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<td>DR-4/SSD3.84TB</td>
<td>911-00064-001</td>
<td>Lot of 4 SSD’s. 3.84 TB Commercial Temp mounted in removable trays.</td>
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<td>DR-4/SSD7.6TB</td>
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<td>Lot of 4 SSD’s. 7.6 TB Commercial Temp mounted in removable trays.</td>
<td>$15,860.00</td>
</tr>
</tbody>
</table>

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**HTLw Core Module, HTLw-U Overview**

Miniature Quad Transceiver

![HTLw Core Module](image1)  
*Shown with Apple iPhone 6*

![HTLw with Universal Enclosure (HTLw-U)](image2)

**DESCRIPTION**

Small Form-Factor Multichannel Microwave Transceiver

The HTLw is a 4 channel Software Defined Radio designed to support various missions.

- Extended frequency range 2 MHz-18000 MHz
- 1 GHz instantaneous BW / channel, 4 GHz total.
- 80+dB SFD
- 4 Phase-Coherent or Independently Tuned Transceivers (remotely configurable). Multi-unit coherency support
- Integrated commercial GPS with INS, optional SAASM, low noise CSAC.

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- High performance FPGA including integrated ARM9 cores with NEON coprocessors enable high performance signal processing applications against modern waveforms.
- 2x10GbE Ethernet ports for high speed data transfer.
- Wideband recorder Interface port.
- Optional Removable Media Module (RMM)

- Open Architecture including an SDK with Board Support Package to enable rapid development of new capabilities.
- HTLw-U is the HTLw core integrated in the Universal tactical package, which is ideal for rugged mobile applications where IP67 water-immersion resistance is not required.

## HTLw Pricing and Options

**Miniature Quad Transceiver**

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number / Option Number</th>
<th>Description</th>
<th>Unit Price 1 to 5</th>
<th>6 to 15</th>
<th>16 to 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTLw core without SAASM unencrypted</td>
<td>HTLw-101150001</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver. Core Module. Without SAASM, Network boot ready</td>
<td>$131,650.00</td>
<td>$125,067.50</td>
<td>$122,434.50</td>
</tr>
<tr>
<td>HTLw core with SAASM unencrypted</td>
<td>HTLw-102150002</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver. Core Module. With SAASM, Network boot ready</td>
<td>$138,150.00</td>
<td>$131,242.50</td>
<td>$128,479.50</td>
</tr>
<tr>
<td>HTLw core without SAASM encrypted</td>
<td>HTLw-101100001</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver. Core Module. Without SAASM, RMM ready</td>
<td>$131,650.00</td>
<td>$125,067.50</td>
<td>$122,434.50</td>
</tr>
<tr>
<td>HTLw core with SAASM encrypted</td>
<td>HTLw-102100002</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver. Core Module. With SAASM, RMM ready</td>
<td>$138,150.00</td>
<td>$131,242.50</td>
<td>$128,479.50</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number / Option Number</th>
<th>Description</th>
<th>Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTLw-U without SAASM unencrypted</td>
<td>HTLw-U101150001</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver mounted in the Universal Enclosure w/ Commercial Front Panel. With SAASM, Network boot ready</td>
<td>$139,800.00</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>$132,810.00</td>
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<td></td>
<td></td>
<td>$130,014.00</td>
</tr>
<tr>
<td>HTLw-U with SAASM unencrypted</td>
<td>HTLw-U102150002</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver mounted in the Universal Enclosure w/ Commercial Front Panel. With SAASM, Network boot ready</td>
<td>$146,300.00</td>
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<tr>
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</tr>
<tr>
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<td></td>
<td></td>
<td>$136,059.00</td>
</tr>
<tr>
<td>HTLw-U without SAASM encrypted</td>
<td>HTLw-U101100003</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver mounted in the Universal Enclosure w/ Commercial Front Panel. Without SAASM, with RMM</td>
<td>$141,900.00</td>
</tr>
<tr>
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<td>$134,805.00</td>
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<td></td>
<td></td>
<td>$131,967.00</td>
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<tr>
<td>HTLw-U with SAASM encrypted</td>
<td>HTLw-U102100004</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver mounted in the Universal Enclosure w/ Commercial Front Panel. With SAASM, with RMM</td>
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<td>$140,980.00</td>
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<td>$138,012.00</td>
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<tr>
<td>HTLw-U/RMM</td>
<td>911-00048-001</td>
<td>Removable Media Module for HTLw-U.</td>
<td>$2,100.00</td>
</tr>
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<td></td>
<td></td>
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<td>$2,100.00</td>
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<td></td>
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<td>$2,100.00</td>
</tr>
</tbody>
</table>
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**HTLx3 Core Module, HTLx3-U Overview**

**Miniature Quad Transceiver**

![HTLx3 with Universal Enclosure (HTLx3-U)](image)

**DESCRIPTION**

**Small Form-Factor Multichannel Microwave Transceiver**

The HTL3 is a 4 channel Software Defined Radio designed to support various missions.

- Extended frequency range 2 MHz-20,000 MHz
- 100 MHz instantaneous BW / channel, 400 MHz total.
- 80+dB SFDR
- 4 Phase-Coherent or Independently Tuned Transceivers (remotely configurable). Multi-unit coherency support
- Integrated commercial GPS with INS, optional SAASM, low noise CSAC.
- High performance FPGA including integrated ARM9 cores with NEON coprocessors enable high performance signal processing applications against modern waveforms.
- 2x40GbE Ethernet ports for high speed data transfer.

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- Wideband recorder Interface port.
- Optional Removable Media Module (RMM)
- Open Architecture including an SDK with Board Support Package to enable rapid development of new capabilities.
- HTLx3-U is the HTLx3 core integrated in the Universal tactical package, which is ideal for rugged mobile applications where IP67 water-immersion resistance is not required.

### HTLx3 Core, HTLx3-U Pricing and Options

**Miniature Quad Transceiver**

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number / Option Number</th>
<th>Description</th>
<th>Unit Price</th>
</tr>
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<tbody>
<tr>
<td>HTLx3 core without SAASM unencrypted</td>
<td>HTLx3-101150001</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver. Core Module. Without SAASM, Network boot ready</td>
<td>$103,700.00</td>
</tr>
<tr>
<td>HTLx3 core with SAASM unencrypted</td>
<td>HTLx3-102150002</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver. Core Module. With SAASM, Network boot ready</td>
<td>$110,200.00</td>
</tr>
<tr>
<td>HTLx3 core without SAASM encrypted</td>
<td>HTLx3-101100001</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver. Core Module. Without SAASM, RMM ready</td>
<td>$103,700.00</td>
</tr>
<tr>
<td>HTLx3 core with SAASM encrypted</td>
<td>HTLx3-102100002</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver. Core Module. With SAASM, RMM ready</td>
<td>$110,200.00</td>
</tr>
<tr>
<td>HTLx3-U without SAASM unencrypted</td>
<td>HTLx3-U101150001</td>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver mounted in the Universal Enclosure w/ Commercial Front Panel. With SAASM, Network boot ready</td>
<td>$118,000.00</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Product Description</th>
<th>HTLx3-UU102150002</th>
<th>HTLx3-UU101100003</th>
<th>HTLx3-UU102100004</th>
<th>Price Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver mounted in the Universal Enclosure w/ Commercial Front Panel. With SAASM, Network boot ready</td>
<td>$124,500.00</td>
<td>$118,275.00</td>
<td>$115,785.00</td>
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</tr>
<tr>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver mounted in the Universal Enclosure w/ Commercial Front Panel. Without SAASM, with RMM</td>
<td>$120,100.00</td>
<td>$114,095.00</td>
<td>$111,693.00</td>
<td></td>
</tr>
<tr>
<td>Miniature Quad VHF/UHF/Microwave Wideband Transceiver mounted in the Universal Enclosure w/ Commercial Front Panel. With SAASM, with RMM</td>
<td>$126,600.00</td>
<td>$120,270.00</td>
<td>$117,738.00</td>
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<tr>
<td>Removable Media Module for HTLx3-U.</td>
<td>$2,100.00</td>
<td>$2,100.00</td>
<td>$2,100.00</td>
<td></td>
</tr>
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</table>

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**HTLv-1, HTLv-13 Overview**

3U VPX Quad Transceiver Module

**DESCRIPTION**

3U OpenVPX Quad Channel HF/VHF/UHF Transceiver Module

The HTLv-1 is a multichannel Software Defined Radio packaged as a 3U REDI/VITA 67.3 conduction-cooled VPX module designed to support various missions.

- Extended Frequency range 2 MHz – 6 GHz
- 80 MHz IFBW (320 MHz total coverage)

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- 80+dB SFDR
- 4 Phase-Coherent or Independently tuned Transceivers (remotely configurable)
- Pluggable Unit-to-Unit Coherency Via OpenVPX Backplane VITA 67.3
- High performance FPGA including integrated ARM9 cores with NEON coprocessors enable high performance signal processing applications against modern waveforms.
- Processors Linked together through SERDES Transceivers and Hybrid Memory Cube
- Platform enables high performance signal processing applications against modern waveforms.
- Open Architecture including an SDK with Board Support Package to enable rapid development of new capabilities.

**HTLv-1, HTLv-13 Pricing and Options**

**3U VPX Quad Transceiver Module**

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number / Option Number</th>
<th>Description</th>
<th>Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3U VPX Quad Transceiver Module, 2 MHz to 6 GHz. SOSA Snapshot 2 aligned</td>
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<tr>
<td>HTLv-1</td>
<td>910-00074-002</td>
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<td>$46,350.00</td>
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<td></td>
<td></td>
<td>$43,105.50</td>
</tr>
<tr>
<td>HTLv-13</td>
<td>910-00282-001</td>
<td>3U VPX Quad Transceiver Module, 2 MHz to 6 GHz. SOSA Snapshot 3 aligned</td>
<td>$47,750.00</td>
</tr>
<tr>
<td></td>
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<td>$45,362.50</td>
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<td></td>
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<td></td>
<td>$44,407.50</td>
</tr>
</tbody>
</table>
HTLv-2, HTLv-23 Overview
3U VPX Dual Transceiver Module

DESCRIPTION
3U OpenVPX Dual Channel HF/VHF/UHF/Microwave Transceiver Module
The HTLv-2 is a multichannel Software Defined Radio packaged as a 3U REDI/VITA 67.3 conduction-cooled VPX module designed to support various missions.

- Extended Frequency range 2 MHz – 20 GHz
- 80 MHz IFBW (320 MHz total coverage)
- 80+dB SFDR

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- 2 Phase-Coherent or Independently tuned Transceivers (remotely configurable)
- Pluggable Unit-to-Unit Coherency Via OpenVPX Backplane VITA 67.3
- High performance FPGA including integrated ARM9 cores with NEON coprocessors enable high performance signal processing applications against modern waveforms.
- Processors Linked together through SERDES Transceivers and Hybrid Memory Cube
- Platform enables high performance signal processing applications against modern waveforms.
- Open Architecture including an SDK with Board Support Package to enable rapid development of new capabilities.

## HTLv-2, HTLv-23 Pricing and Options

### 3U VPX Dual Transceiver Module

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number / Option Number</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>1 to 5</td>
</tr>
<tr>
<td>HTLv-2</td>
<td>910-00075-002</td>
<td>3U VPX Dual Transceiver Module, 2 MHz to 20 GHz. SOSA Snapshot 2 aligned</td>
<td>$48,900.00</td>
</tr>
<tr>
<td>HTLv-23</td>
<td>910-00283-001</td>
<td>3U VPX Dual Transceiver Module, 2 MHz to 20 GHz. SOSA Snapshot 3 aligned.</td>
<td>$50,367.00</td>
</tr>
</tbody>
</table>

Effective September 2020
PNTRv, PNTRv-3 - Overview

3U VPX Reference Module

PNTRv, 3U VPX Reference Module

DESCRIPTION

3U OpenVPX Precision Navigation and Timing Reference Module
The PNTRv design requirements were derived from the Joint Airborne SIGINT Architecture (JASA) specification. The key specifications of interest for the design of the PNTR from the JASA specification follow. It should be noted that JASA defines a Threshold and an Objective set of requirements.

- Provides low noise 100 MHz reference using Low Noise Chip Scale Atomic Clock (LNCSAC)
- Integrated inertial navigation system (INS) with GPS
- Optional SAASM GPS available with RS232 key fill connectivity
- 100 MHz outputs
- Programmable 250 MHz outputs
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- Output 1 PPS synchronous to 100MHz
- On board antenna switching to devices
- 1 GbE Control Interface to OpenVPX Backplane

**PNTRv, PNTRv-3 – Pricing and Options**

**3U VPX Reference Module**

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number / Option Number</th>
<th>Description</th>
<th>Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNTRv without SAASM</td>
<td>910-00076-001</td>
<td>3U VPX Precision Navigation and Reference Module without SAASM. SOSA Snapshot 2 aligned</td>
<td>$37,500.00</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>1 to 5 $35,625.00 6 to 15 $33,131.25</td>
</tr>
<tr>
<td>PNTRv with SAASM</td>
<td>910-00076-002</td>
<td>3U VPX Precision Navigation and Reference Module with SAASM. SOSA Snapshot 2 aligned</td>
<td>$44,000.00</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>1 to 5 $41,800.00 6 to 15 $38,874.00</td>
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<tr>
<td>PNTRv3 without SAASM</td>
<td>910-00076-003</td>
<td>3U VPX Precision Navigation and Reference Module without SAASM. SOSA Snapshot 3 aligned</td>
<td>$38,600.00</td>
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<td>1 to 5 $36,670.00 6 to 15 $34,103.10</td>
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<tr>
<td>PNTRv3 with SAASM</td>
<td>910-00076-004</td>
<td>3U VPX Precision Navigation and Reference Module with SAASM. SOSA Snapshot 3 aligned</td>
<td>$45,125.00</td>
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<td>1 to 5 $42,868.75 6 to 15 $39,867.94</td>
</tr>
</tbody>
</table>
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HTLv-C Overview

DESCRIPTION
The HTLv-C is a 3U VPX reference chassis, designed per Technical Standard for Sensor Open Systems Architecture (SOSA™) Available aligned to Snapshot 2 and Snapshot 3 versions as well as different number of slots:

- 19-Slot and 11-slot, 3U VPX Chassis
- Designed per Technical Standard for Sensor Open Systems Architecture (SOSA™)
- Available with infrastructure modules.
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19 Slot Snapshot 2 aligned
Backplane

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11 Slot Snapshot 3 aligned
Backplane
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**HTLv-C Pricing and Options**

**3U VPX Chassis**

<table>
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<th>Model</th>
<th>Part Number / Option Number</th>
<th>Description</th>
<th>Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTLv-C-19</td>
<td>HTLv-C-19</td>
<td>3U VPX Chassis and Backplane, includes chassis manager and system support module. Snapshot2 aligned</td>
<td>$149,500.00 $142,025.00 $139,035.00</td>
</tr>
<tr>
<td>HTLv-C3-19</td>
<td>HTLv-C3-19</td>
<td>3UVPX 19 slots Snapshot3 aligned chassis</td>
<td>$154,000.00 $146,300.00 $143,220.00</td>
</tr>
<tr>
<td>HTLv-C3-11</td>
<td>HTLv-C3-11</td>
<td>3UVPX 11 slots Snapshot3 aligned chassis</td>
<td>$135,000.00 $128,250.00 $125,550.00</td>
</tr>
<tr>
<td>3UVPX Power Supply 650W</td>
<td>300-00028</td>
<td>Module 3U VPX Power Supply (VITA62) 650W, 48.2 cond Cooled. Snapshot2 aligned</td>
<td>$5,900.00 $5,605.00 $5,487.00</td>
</tr>
<tr>
<td>3UVPX Power Supply 700W</td>
<td>300-00039</td>
<td>3UVPX Power Supply 700W Module 3U VPX Power Supply (VITA62) 700W, 48.2 cond Cooled with IMPI. Snapshot3 aligned</td>
<td>$6,650.00 $6,317.50 $6,184.50</td>
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<tr>
<td>3UVPX Ethernet Switch</td>
<td>300-00025</td>
<td>Module 3U VPX Ethernet Switch, 12 port Victory-Compliant, 48.2. Snapshot2 aligned</td>
<td>$36,000.00 $34,200.00 $33,480.00</td>
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<tr>
<td>40GigEthernet Switch</td>
<td>300-00038</td>
<td>Module 3U VPX 40Gig Ethernet Switch, 12 port Victory-Compliant, 48.2. Snapshot3 aligned</td>
<td>$36,950.00 $35,102.50 $34,363.50</td>
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<tr>
<td>100GigEthernet Switch</td>
<td>300-00043</td>
<td>Module 3U VPX 100Gig Ethernet Switch, 12 port Victory-Compliant, 48.2. Snapshot3 aligned</td>
<td>$85,000.00 $80,750.00 $79,050.00</td>
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<tr>
<td>3UPCIE Switch</td>
<td>300-00029</td>
<td>Module 3U,PCIE Switch</td>
<td>$11,000.00 $10,450.00 $10,230.00</td>
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<tr>
<td>Gen4 PCIe Switch</td>
<td>300-00042</td>
<td>3UVPX Gen4 PCIe System Switch</td>
<td>$13,200.00 $12,540.00 $12,276.00</td>
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<tr>
<td>HTLv-PCIE-GPGPU</td>
<td>300-00041</td>
<td>3UVPX PCIe-GPGPU</td>
<td>$25,950.00 $24,652.50 $24,133.50</td>
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<td>HTLv-GPGPU</td>
<td>300-00040</td>
<td>3UVPX Payload Slot GPGPU</td>
<td>$25,800.00 $24,510.00 $23,994.00</td>
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<tr>
<td>3UVPX IO SBC</td>
<td>910-00183-001</td>
<td>IO SBC</td>
<td>$43,000.00 $40,850.00 $39,990.00</td>
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</tbody>
</table>

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**HTL44E Overview**

Ultra-Wideband Up/Down Converter

**DESCRIPTION**

- Ruggedized, man-portable, high-performance frequency up/down converter
- Extends any HTL tuner’s frequency coverage up to 44 GHz for both Rx and Tx
  - 2 MHz to 6 GHz I/O to/from Tuner
  - Optionally available with 2 MHz to 18 GHz I/O to/from Tuner
  - 2 MHz to 44 GHz I/O to/from Antennas
- Integrated Rx/Tx distribution

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- 4 channels capable of independent or phase coherent operation
- 45 W power consumption
- Fast blanking
- 50 us tuning
- Add-On system compliments tried-and-true HTL Radio SIGINT/Geolocation Systems
- HTL44E designed to be mounted at the antenna aperture; located up to 25 meters from the Radio

## HTL44E Pricing

### Ultra-Wideband Up/Down Converter

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number/Option Number</th>
<th>Description</th>
<th>Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTL44E</td>
<td>HTL44E-0002</td>
<td>1MHz to 44 GHz Up/Down Converter</td>
<td>$110,000.00 $104,500.00 $102,300.00</td>
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Effective September 2020