

The WaveTherm conduction-cooled thermal load-board module is a cost-effective solution for thermal testing of rugged or mil-spec enclosures and systems using wedge locks. The PCB design permits your choice of either primary or secondary side wedglock positioning for compatibility with systems using either wedglock configuration.



INCLUDES

- Host Heat Frame
- Type T Thermocouples (x2)
- PCB Load Board (x2 for 6U)
- SolidWedge™ Retainers
- Fully Assembled

FEATURES

- Complies to VPX Standards
- Customizable Heat Plates
- 115W Dissipated at 12/24/48 Volts

Type T thermocouples embedded in heat frame with leads accessible to user

SPECIFICATIONS

- IEEE 1101.2
- VITA 48.2
- CompactPCI

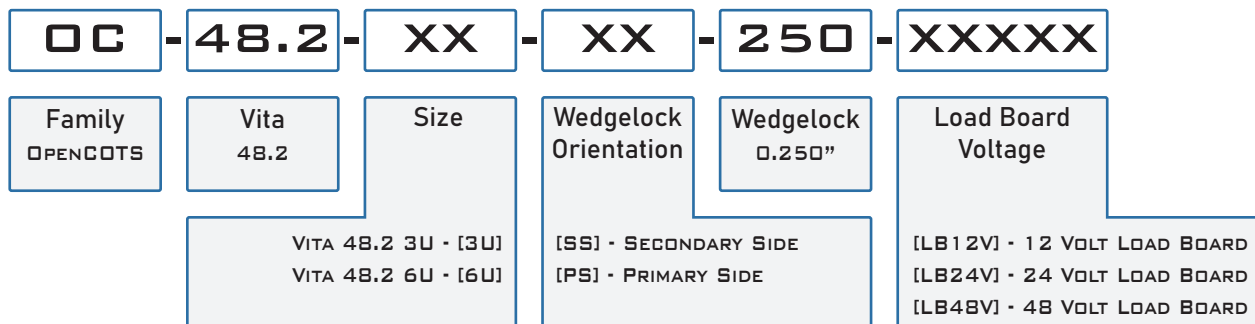
3D MODELS

(3U): <https://a360.co/3vN5GpF>
(6U): <https://a360.co/3Sw7rAv>



The WaveTherm Conduction-Cooled Thermal Load Board Module is part of the OpenCOTS portfolio of products intended for accelerated product design and real-world qualification testing of 3U and 6U conduction-cooled single board computers. WaveTherm's OpenCOTS products facilitate faster time to market, reduce engineering allocations, and minimize production fabrication costs.

PART NUMBER BUILDER



3U



6U

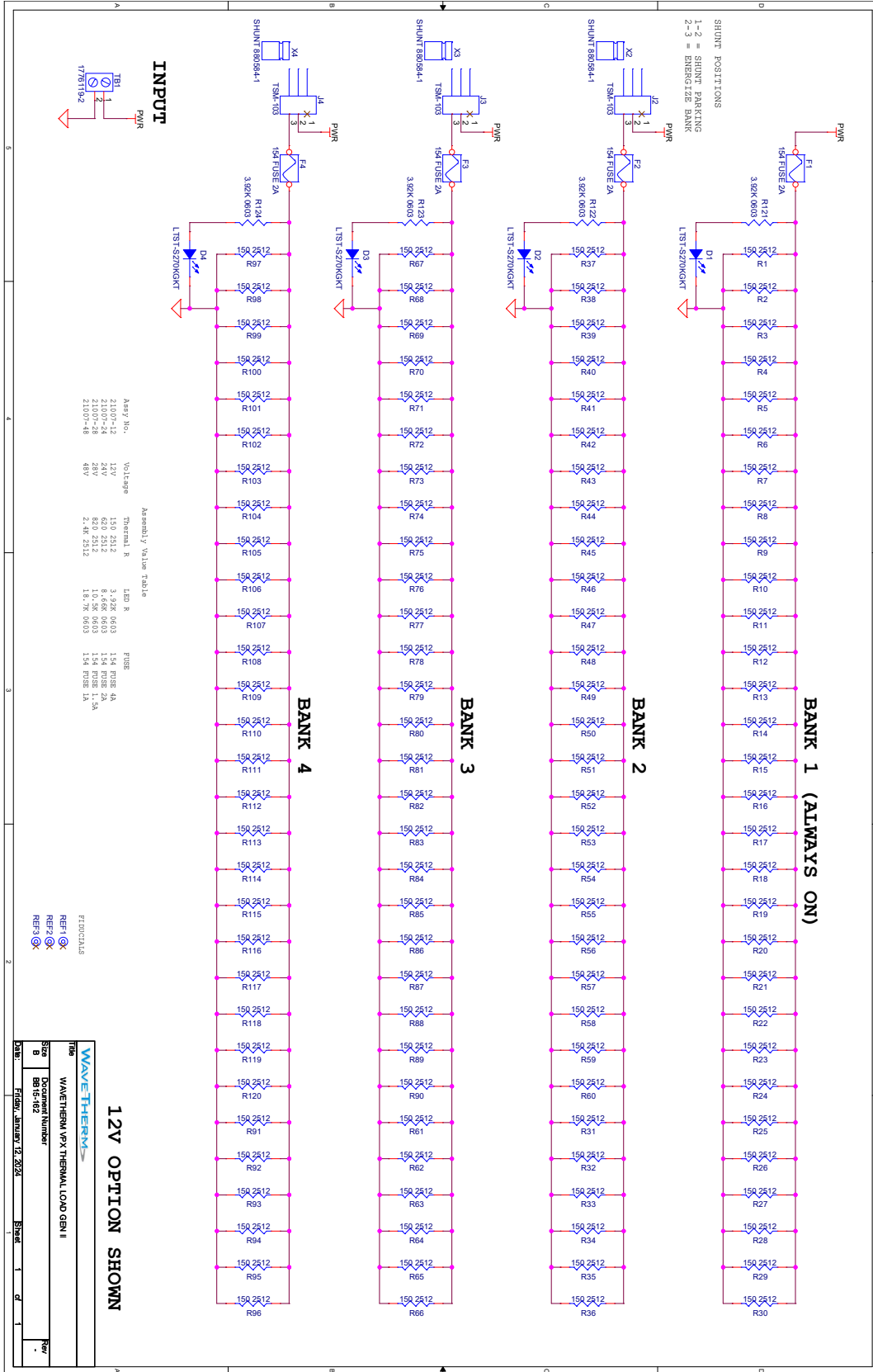


Note: 6U Assembly has two separate PCBs that should be wired independently.

LOAD BOARD OVERVIEW

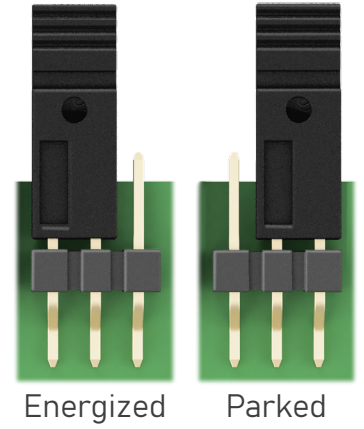
There are three standard versions designed for voltages of 12 VDC, 24 VDC, 48 VDC, and each PCB dissipates up to 115 Watts at the stated voltage. The applied voltage may be reduced using a variable power supply to obtain the exact power dissipation required to meet the testing requirements of your system.

The load board lacks an electrical connection to the backplane, but is equipped with VPX alignment sockets. Power is supplied to the board through a single terminal block located at the front of the PCB. Jumpers / shunts at the front of the board provide flexibility to power from one to all four of the resistor banks on the board. These resistors are evenly distributed across the board's surface, ensuring that any chosen combination of banks will evenly dissipate energy. The board is designed with specific resistor values to support standard voltages of 12, 24, or 48 VDC. When operated at the designated voltage, the board can dissipate 115 Watts of power. Additionally, the board can be used with variable voltages up to its nominal rated voltage, allowing for precise adjustment of the heat load applied to the unit under test. Each powered bank is indicated by a green LED, and power to each bank is protected by a slow-blow fuse, safeguarding the board against potential damage from incorrectly applied higher voltages.



WIRING

SHUNT POSITION



TERMINAL:

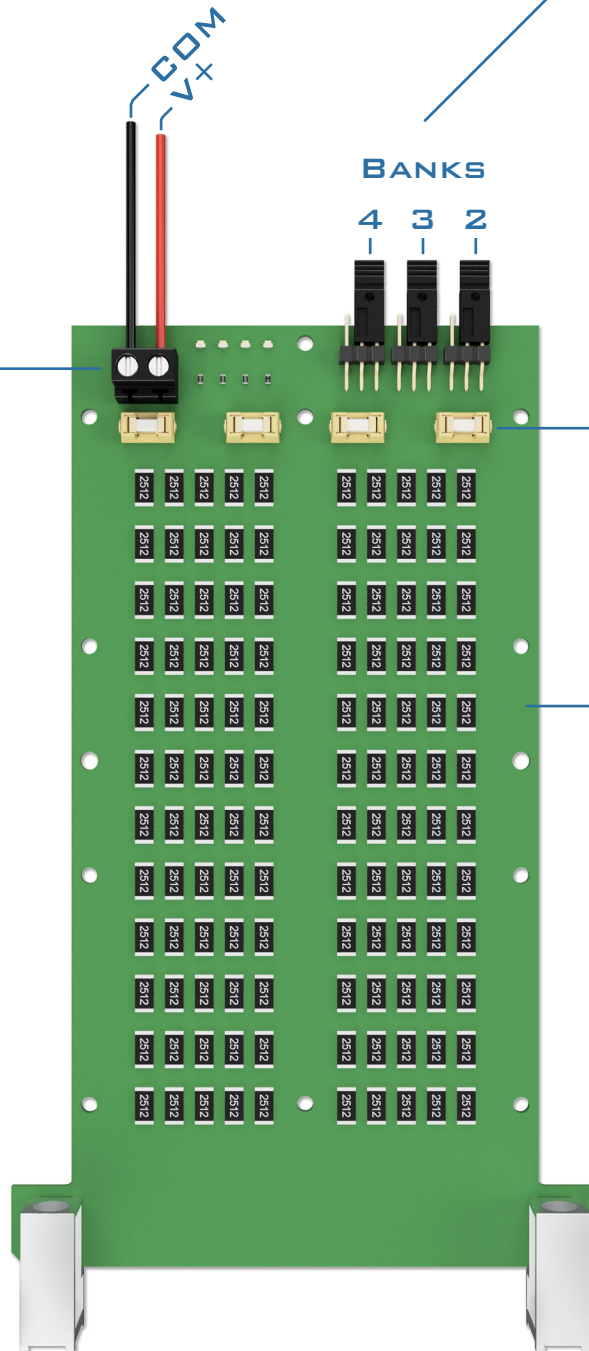
TE - 1776119-2 Max 10 Amps

NOTES:

All PCB assemblies are voltage specific. Order PCB based on DC voltage.

All common terminals are electrically connected on the board and requires only a single common wire.

6U assembly will have two load boards



FUSE (X4)

Littelfuse
12V - 154 Fuse 4A
24V - 154 Fuse 2 A
48V - 154 Fuse 1A

RATED POWER:

12V - 115 WATTS
24V - 115 WATTS
48V - 115 WATTS

DC input terminals are independent of other terminals.

Power is controlled via Jumpers / Shunts.

Common terminals are electrically connected on PCB.

Note: Each shunt/jumper 1/4 of max load