EMBEDDED & EDGE AI

REGIMENT SERIES

Imperium TGB-7393

12th/13th Gen Rugged AI PC

Built for AI inference, machine learning and deep learning at the edge: five PCIe slots for dual GPUs, 12th/13th Gen Intel Core CPUs, up to 64 GB DDR5 and hot-swappable storage in a rugged wall-mount chassis.



Core i3 to i9	5× PCIe slots	64 GB DDR5	2× 2.5GbE LAN	9–48 VDC	-40 to 70°C
12th/13th Gen	Dual GPU, Gen4	4800 MHz, ECC option	10× USB, 4× COM	Wide-range input	Operating (-40–158°F)

KEY FEATURES

- 12th/13th Gen Intel Core i3 to i9, Celeron, Pentium, Intel R680E
- 2× DDR5 4800 SO-DIMM, up to 64 GB (non-ECC/ECC)
- 5 PCIe slots incl. x16 Gen4, dual-GPU ready
- 4 hot-swappable drive trays (2× 2.5", 2× 3.5"), RAID 0/1/5/10
- HDMI 2.0b, DisplayPort 1.4, VGA, dual 2.5GbE
- 10× USB, 4× COM, 32-bit DIO, 6× antenna holes
- 9–48 VDC input, optional vehicle ignition card
- MIL-STD-810H vibration and shock

APPLICATIONS

Edge AI and machine vision
Run vision and inference models on one or two GPUs at the edge

Machine learning and deep learning
Harness the power of dual GPUs to train and run large models

Vehicles and mobile sites
Optional ignition card and 9–48 VDC input for in-vehicle installs

Industrial automation
32-bit DIO and 4× COM for control, SCADA and IIoT projects

CERTIFICATIONS

CE FCC

SYSTEM	
Processor	12th/13th Gen Intel Core i3/i5/i7/i9, Celeron, Pentium
Chipset	Intel R680E
Memory	2× DDR5 4800 MHz SO-DIMM, up to 64 GB (non-ECC/ECC)
Graphics	Intel UHD Graphics
Storage	1× M.2 M-Key slot (2280/2260/2242) 1× M.2 B-Key slot (2280/2260/2242) 2× 2.5" SATA SSD trays (hot-swappable) 2× 3.5" SATA SSD trays (hot-swappable) 1× mSATA slot 1× CFast slot Supports RAID 0/1/5/10 with up to 7 SATA drives
Security	TPM 2.0
OS support	Windows 10 / 11 64-bit; Linux on request

POWER	
Input range	9–48 VDC
Input port	2× 4-pin terminal block (dual input)
Ignition	Optional vehicle ignition card, 12 V / 24 V, selectable power on/off timing
Power supplies	Optional 24 V / 300 W AC adapter or 48 V / 1000 W external power supply; customer-provided DC power supported up to 1500 W

ENVIRONMENTAL	
Operating	35 W CPU: -40 to 70°C (-40 to 158°F) 65 W CPU: -40 to 60°C (-40 to 140°F) No GPU; 0.7 m/s airflow, wide-temp memory/storage Dual GPU cards: max. -10°C
Storage	-40 to 85°C (-40 to 185°F)
Humidity	Storage: 10–95% at 85°C (185°F), non-condensing
Vibration	MIL-STD-810H 514.8 C-I, Cat. 4 (truck)
Shock	MIL-STD-810H 516.8 Proc. I, 20 G, 11 ms

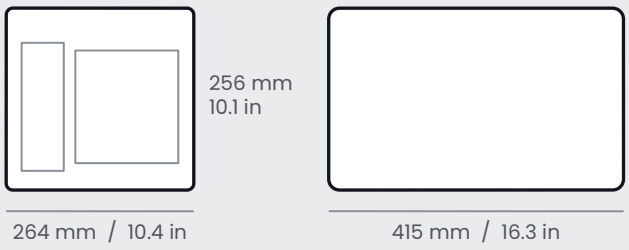
I/O PORTS	
USB	8× USB 3.2 on front (4× Gen 2, 4× Gen 1); internal 1× USB 3.2 Gen 1, 1× USB 2.0
Serial	3× RS-232, 1× RS-232/422/485
LAN	2× RJ45 2.5GbE (Intel I225-LM, I225-V)
Video	1× HDMI 2.0b, 1× DisplayPort 1.4, 1× VGA
Audio	1× line-out, 1× mic-in
DIO	32-bit DIO (DB37)
Antenna	6× SMA holes with rubber caps
Other	2-pin terminal block remote power on/off

EXPANSION	
PCIe slots	Slot 1: x16 (Gen4); slots 2–3: x4 in x16 connector (Gen4); slot 4: x8 in x16 connector (Gen4); slot 5: x1 open-ended (Gen3)
M.2 / Mini PCIe	1× M.2 B-Key 3052/3042/2242/2260/2280 (USB 3.0, SATA III, PCIe x1); 1× M.2 M-Key 2230/2242/2260/2280 (PCIe x4 NVMe, SATA III); 1× M.2 2230 E-Key (CNVi, PCIe x1, USB 2.0); 2× full-size Mini PCIe
SIM	4× SIM slots (2× M.2 B-Key, 2× Mini PCIe)

ENCLOSURE AND MECHANICAL	
Material	Aluminum alloy top cover; steel bezel and chassis
Mounting	Wall mount (bracket included)
LEDs	Power, HDD
Buttons	Power button
Speaker	Buzzer
Cooling	Fan
Dimensions	264 × 415 × 256 mm (10.4 × 16.3 × 10.1 in), W × D × H

CERTIFICATION AND WARRANTY	
Certifications	CE, FCC
Warranty	Up to 5 years

DIMENSIONS



GPU READY

Add third-party graphics cards for AI inference, machine learning and deep learning.

- Two GPU slots (slot 1 and slot 4), PCIe Gen4
- Slot 4: Gen4 x8 = Gen3 x16 bandwidth
- Optional 48 V / 1000 W external power supply
- Ask sales about operating temperatures with GPU cards

FRONT PANEL



1. 6× SMA antenna holes
2. 4× COM (RS-232; 1× RS-232/422/485)
3. Power button, power/HDD LEDs
4. Remote power on/off (2-pin)
5. Line-out and mic-in
6. 2× USB 2.0
7. 4× USB 3.2
8. 2× LAN (2.5GbE)
9. DisplayPort 1.4
10. HDMI 2.0b
11. 4× USB 3.2
12. VGA
13. 5× PCIe expansion slots
14. 32-bit DIO (DB37)

Front panel I/O can be customized; ask your sales rep about custom I/O configurations.

REAR AND SIDE PANELS



1. 2× 4-pin terminal block power input (9–48 VDC)
2. 4× SIM slots (2× M.2 B-Key, 2× Mini PCIe)
3. CFast slot
4. 2× 2.5" hot-swappable drive trays
5. 2× 3.5" hot-swappable drive trays
6. Vehicle Ignition Card Slot

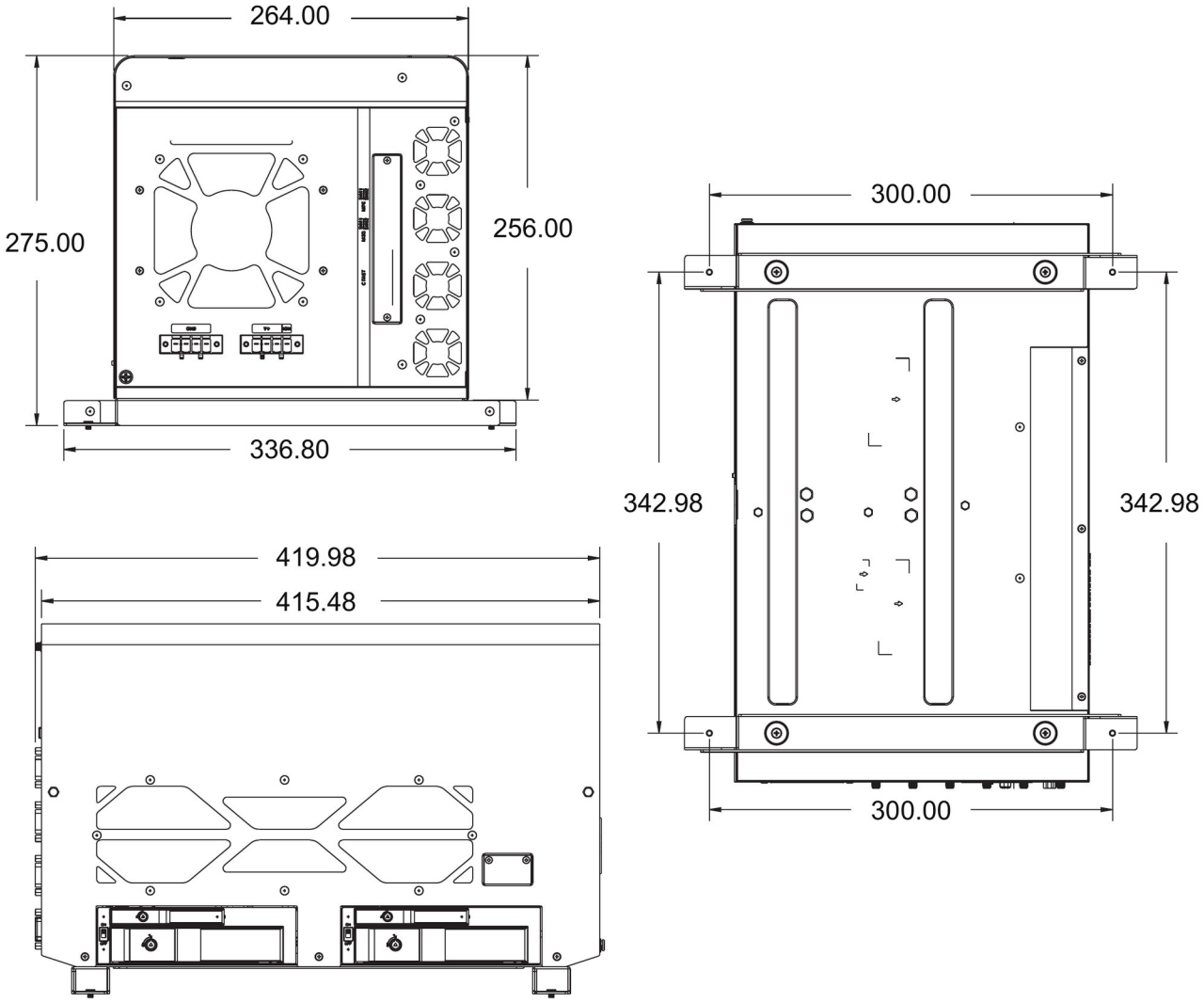
PCIE EXPANSION SLOTS

- **Slot 1 (GPU)**
  PCIe x16, Gen4
- **Slots 2 and 3**
  PCIe x4 in x16 connector, Gen4
- **Slot 4 (GPU)**
  PCIe x8 in x16 connector, Gen4 (Gen3 x16 bandwidth)
- **Slot 5**
  PCIe x1 in open-ended connector, Gen3

OPTIONAL ACCESSORIES

- **Vehicle ignition card**
  12 V / 24 V, selectable power on/off timing
- **24 V / 300 W AC adapter**
  With EU and US AC power cords
- **48 V / 1000 W power supply**
  External; DC-to-DC cable and EU and US AC power cords

DIMENSIONS (MM)



264 × 415 × 256 mm

10.4 × 16.3 × 10.1 in

Overall W × D × H

336.8 × 420 × 275 mm

13.3 × 16.5 × 10.8 in

With wall-mount bracket

300 × 342.98 mm

11.8 × 13.5 in

Mounting hole spacing

CONTACT US

Let's talk about your project

Pricing, samples, custom configurations or a demo unit: send us a note through the contact form and a Teguar engineer will get back to you.

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