

NEXT-GEN SD-WAN EDGE APPLIANCE

SD-WAN AI Edge

A compact desktop and rack-ready branch appliance that unites intelligent SD-WAN routing, next-gen security, local AI processing and industrial I/O on a quad-core 10G platform.



4 × A73

Quad-core Arm Cortex-A73 at 1.8 GHz, MediaTek Filogic 880

8 GB

DDR4 memory, 8 GB eMMC and 256 MB SPI-NAND

10G uplink

SFP+ / RJ45 combo plus 8 × RJ45 in a 2 × 4 bank

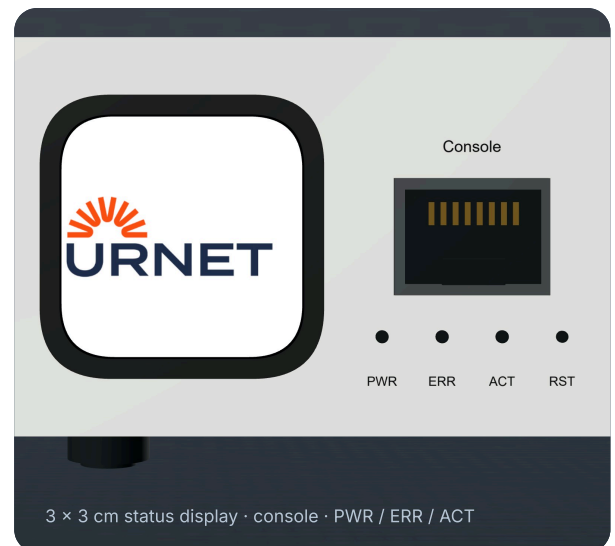
26 GPIO

Pico I/O incl. 3 ADC, plus RS-485 for field devices

Intelligent connectivity for every branch

Hermes Network SD-WAN AI Edge connects branches, stores and remote sites to the network and keeps them running. It steers each application over the best available path and processes data at the edge, close to where it is created.

The wired edition uses fixed-line and fibre WAN only. A 10G uplink and eight RJ45 ports cover the WAN side and the local network. There are no cellular radios or antenna connectors, which suits sites with dependable wired circuits and strict RF policies. Every unit is provisioned, monitored and updated from the Hermes Orchestrator.



AI-driven path selection

Measures latency, jitter and loss on every link in real time and moves critical traffic to the healthiest path before users notice a problem.



Application-aware QoS

Identifies voice, video, POS and cloud apps and applies business policy, so the traffic that matters gets bandwidth first.



Secure by design

Encrypted overlay between sites, next-gen firewall, IDS/IPS and segmentation keep branch traffic separate and protected.



Edge AI inference

Runs analytics and anomaly detection on the device, so sites send insights to the cloud instead of raw data.



Zero-touch deployment

Ship the unit to site, plug it in and it provisions itself from the Orchestrator. No engineer has to visit.



Industrial & IoT ready

RS-485 and a 26-pin Pico GPIO header with ADC inputs connect sensors, meters and controllers directly.

Built for distributed operations

Retail & QSR

POS, digital signage and guest services on one secure edge.

Branch offices

Reliable SaaS, voice and video over multiple wired links.

Industrial sites

Collect Modbus / RS-485 and sensor data close to the machines.

Smart buildings

Monitor building systems and run local automation logic.

A 10G network processor with room to grow

The appliance is built on the MediaTek Filogic 880 (MT7988A) network processor: four Arm Cortex-A73 cores at 1.8 GHz, 8 GB of DDR4 and dedicated hardware engines that move packets without loading the CPU.

Forwarding, NAT and tunnelling are offloaded to silicon, which leaves the CPU free for security inspection, application identification and on-device AI workloads. Three tiers of flash keep the operating system, the recovery image and local data on separate media.

1.8 GHz

4 × Cortex-A73 cores

8 GB

DDR4 system memory

PPE + TOPS

Hardware packet & tunnel offload

PCIe 3.0

NVMe, Wi-Fi and accelerator expansion

SOFTWARE & SERVICES STACK

Hermes Orchestrator (cloud)

Multi-tenant management, zero-touch provisioning, Digital Twin, firmware lifecycle, alerts and reporting

SD-WAN overlay

Encrypted tunnels, dynamic path selection, link bonding and failover

Security

Next-gen firewall, IDS / IPS, threat intelligence, segmentation

Visibility

Application discovery, per-app QoS and traffic analytics

Edge AI

Anomaly detection, traffic classification, sensor & video analytics

Hardened Linux edge OS

Dual-image A/B firmware with rollback, containerised services, signed updates

HARDWARE PLATFORM

CPU complex

MediaTek MT7988A · 4 × Cortex-A73 @ 1.8 GHz

Offload

Packet Processing Engine (routing / NAT) · TOPS tunnel offload · crypto engine

Memory

8 GB DDR4

Boot & recovery

256 MB SPI-NAND

Operating system

8 GB eMMC, dual image

Local data

Micro SD · 2 × M.2 M-key
NVMe (PCIe 3.0 ×1)

I/O MCU

Pico I/O controller · 26 GPIO · 3 × ADC · RS-485

Wi-Fi 7 option

2 × mini PCIe (PCIe 3.0 ×2) for tri-band Wi-Fi 7 NICs

Cellular option

3 × M.2 B-key (USB 3.2) for LTE / 5G modules

AI accelerator option

M.2 M-key slot for a PCIe AI inference module

Dashed items are factory or field options. The Case C wired edition ships with the radio and cellular slots unpopulated and no antenna connectors.

Wire-speed forwarding

The Packet Processing Engine handles routing and NAT flows in hardware once a session is classified, so 10G uplinks stay at line rate.

Tunnel offload

The Tunnel Offload Processor System (TOPS) accelerates overlay tunnel encapsulation, keeping SD-WAN overhead off the CPU.

Resilient firmware

A/B images on eMMC with a recovery image on SPI-NAND: a failed update rolls back on its own.

Every port where you need it

Network ports, console and status display are on the front panel. Power, expansion and industrial I/O are on the rear, so installed cabling stays tidy.

Front panel

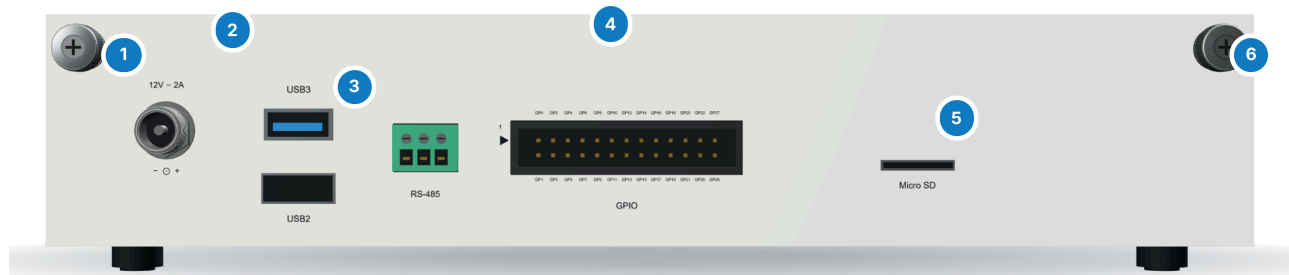
NETWORK & MANAGEMENT



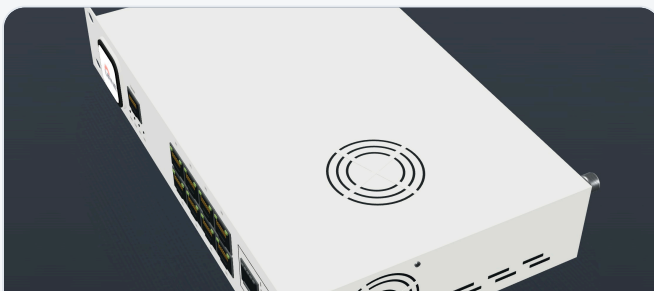
- 1 Status display**
3 × 3 cm module, ~2.4 × 2.4 cm glass
- 2 RJ45 console**
Out-of-band CLI management
- 3 PWR · ERR · ACT · RST**
Status LEDs and reset button
- 4 P1-P8 Ethernet**
8 × RJ45 in a 2 × 4 bank
- 5 10G combo**
SFP+ (left) and 10GBASE-T RJ45 (right)
- 6 Mounting ears**
Rack or wall installation

Rear panel

POWER, EXPANSION & I/O



- 1 12 V DC input**
Locking DC5521 barrel connector
- 2 USB 3.2 + USB 2.0**
Storage, LTE dongles, peripherals
- 3 RS-485**
3-pin pluggable terminal block
- 4 26-pin GPIO**
Keyed, Pin 1 marked, 2.54 mm pitch
- 5 Micro SD**
Local logs, models and images
- 6 Thumbscrews**
Tool-free, knurled, 8 mm head



Cooling for continuous operation

PWM-controlled fan behind top and side grilles, plus slotted vents, keeps the unit cool when it runs 24/7 in a cabinet.



Clean, antenna-free chassis

The wired edition has no antenna connectors and no upper rear vents, leaving a sealed, flat profile for dense racks.

Technical specifications

PROCESSING

Processor	MediaTek Filogic 880 (MT7988A)
CPU	4 × Arm Cortex-A73, 1.8 GHz
Hardware offload	Packet Processing Engine (routing, NAT), TOPS tunnel offload, hardware crypto engine
Memory	8 GB DDR4

STORAGE

System flash	8 GB eMMC (dual-image OS)
Boot / recovery	256 MB SPI-NAND
Removable	Micro SD card slot
NVMe	2 × M.2 M-key, PCIe 3.0 ×1 (internal)

NETWORKING

Ethernet	8 × RJ45 (P1-P8), 2 rows × 4, WAN / LAN assignable
10G uplink	Combo: 1 × SFP+ or 1 × 10GBASE-T RJ45
Cellular WAN	None in wired edition; 3 × M.2 B-key (USB 3.2) for LTE / 5G on radio builds
Wi-Fi	None in wired edition; 2 × mini PCIe (PCIe 3.0 ×2) for Wi-Fi 7 NICs

MANAGEMENT

Console	RJ45 serial console, front panel
Display	3 × 3 cm status module (~2.4 × 2.4 cm glass), scrolling branding and status
Indicators	PWR, ERR, ACT LEDs · recessed RST button
Clock	Battery-backed RTC

EXPANSION & I/O

USB	1 × USB 3.2 Gen 1, 1 × USB 2.0 (rear, stacked)
Serial	RS-485, 3-pin pluggable terminal block
GPIO	26-pin, 2 × 13, 2.54 mm pitch (~40 × 9 mm): GP0-GP22, GP26-GP28
Analog inputs	3 × ADC (GP26-GP28 = ADC0-ADC2)

PHYSICAL & POWER

Dimensions	210 × 135 × 40 mm (W × D × H), excl. ears, feet and connectors
Mounting	Desktop on rubber feet, or rack and wall via integrated ears
Power input	12 V DC, locking DC5521 barrel; 2 A wired edition, up to 5 A with NVMe / radio modules
Cooling	PWM fan, top and side grilles, slotted side vents

SOFTWARE & SERVICES

SD-WAN	Encrypted overlay, dynamic per-application path selection, link failover and bonding, application-aware QoS
Security	Next-gen firewall, next-gen IDS / IPS, AI-driven threat intelligence, segmentation, Hermes 360 Guard integration
Visibility	Application discovery, per-site and per-app analytics
Edge AI	On-device anomaly detection and traffic classification; sensor analytics over GPIO / RS-485
Management	Hermes Orchestrator: zero-touch provisioning, multi-tenant, Digital Twin, A/B firmware with rollback
Commercials	Purchase or Network-as-a-Service (hardware, licences, monitoring and refresh in one monthly fee)

Software features depend on licence tier and firmware release. Radio, cellular, NVMe and accelerator options are build-to-order.

Pico GPIO header map

Rear mating face, Pin 1 upper left. All 26 contacts carry GPIO; the header has no power or GND pins, so the adapter needs a separate common ground.

1 GP0	3 GP2	5 GP4	7 GP6	9 GP8	11 GP10	13 GP12	15 GP14	17 GP16	19 GP18	21 GP20	23 GP22	25 GP27
2 GP1	4 GP3	6 GP5	8 GP7	10 GP9	12 GP11	14 GP13	16 GP15	18 GP17	20 GP19	22 GP21	24 GP26	26 GP28

Blue pins are ADC-capable: GP26, GP27 and GP28 map to ADC0, ADC1 and ADC2.

Typical I/O uses

- ✓ Door, tamper and cabinet-open contacts
- ✓ Temperature, humidity and leak sensors (analog)
- ✓ Relay outputs for sirens, lights and HVAC interlocks
- ✓ Modbus RTU meters and PLCs over RS-485



Case C variants

	CASE C	WITHOUT 5G
Rear antenna connectors	4 × gold	None
Upper rear vent holes	8	None
Cellular / Wi-Fi modules	Fitted	Slots unpopulated
Front panel, I/O, size	Identical	Identical

Take your branch network to the edge.

Talk to our team about pilots, volume pricing and NaaS bundles for the Hermes Network SD-WAN AI Edge.



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