



Barracuda CloudGen WAN

A global SASE service delivering SD-WAN, security, and networking built natively on Azure

Product Overview

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About Barracuda Networks

At Barracuda we strive to make the world a safer place. We believe every business deserves access to cloud-enabled, enterprise-grade security solutions that are easy to buy, deploy, and use. We protect email, networks, data and applications with innovative solutions that grow and adapt with our customers' journey. More than 200,000 organizations worldwide trust Barracuda to protect them – in ways they may not even know they are at risk – so they can focus on taking their business to the next level.

Barracuda's international headquarters are in the heart of northern California's Silicon Valley.



Barracuda CloudGen WAN for Azure

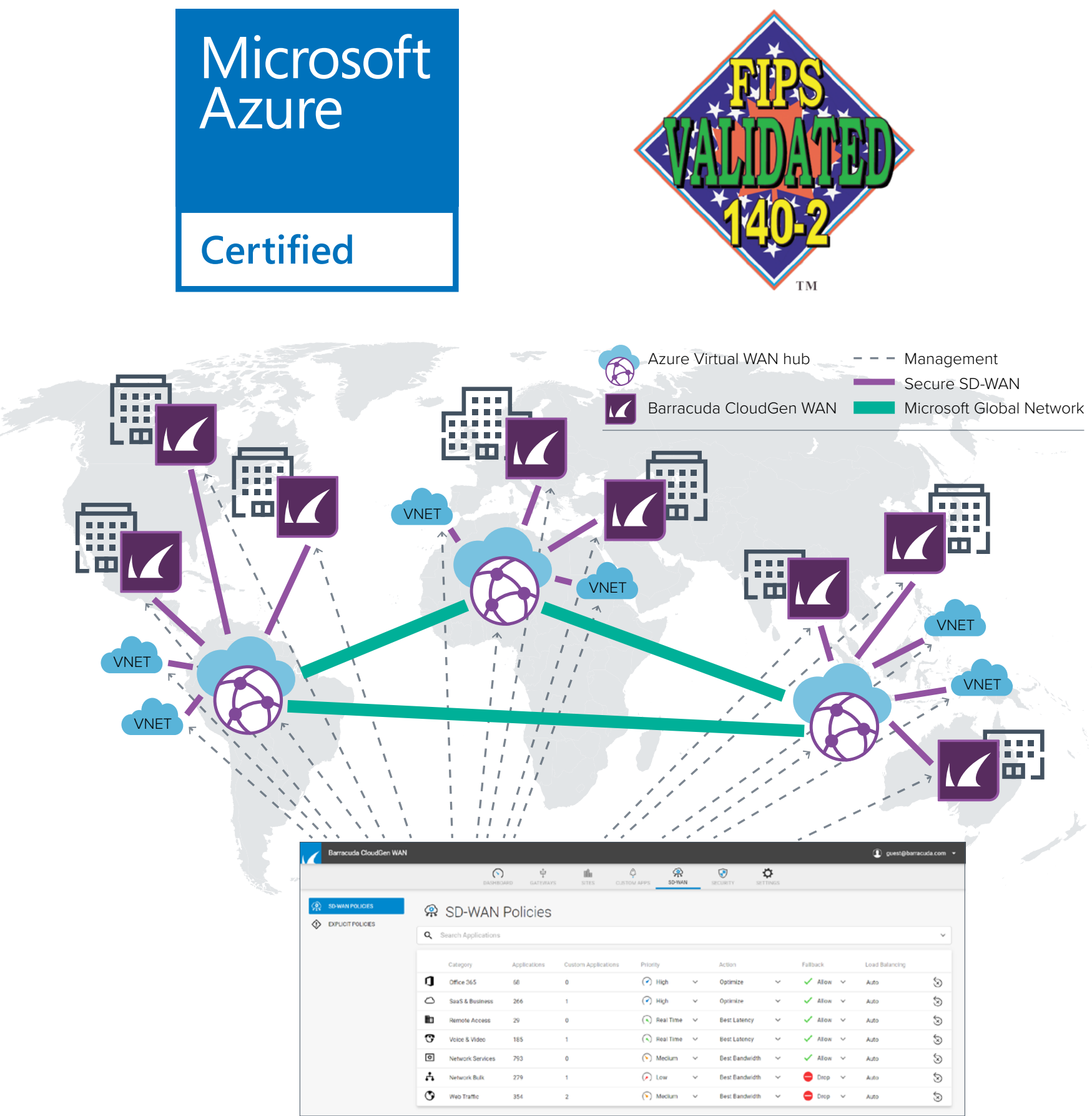
Barracuda CloudGen WAN is a global SASE service built natively on Azure. Running inside one or multiple regions in an Azure Virtual WAN (vWAN) hub, each branch connects to an CloudGen WAN gateway inside the vWAN hub. Hubs are interconnected via the Microsoft Global Network. The Azure backbone replaces costly inflexible MPLS circuits, and the entire network can be dynamically sized to match current traffic workload optimizing network performance while minimizing cost.

Deployed from the Azure Marketplace, administered from the CloudGen WAN portal for all regions, sites and remote clients, Barracuda CloudGen WAN is easy to set up and manage and does not require specialized IT skills. Smart configurations for common cloud applications and SaaS services, zero-touch deployment, and scalability to thousands of devices via the simple web user interface ensures it works out of the box. The Microsoft Global Network is automatically provisioned as the backbone for optimized connectivity and anywhere application access. This allows companies and service providers to create a pragmatic SASE solution in the public cloud they prefer, on their own terms.

Built on the same security technology as Barracuda CloudGen Firewall, Barracuda’s battle-tested enterprise network firewall, CloudGen WAN features a full set of industry leading next-generation security and connectivity capabilities. Advanced security functionality includes application control, IPS, content filtering and Barracuda’s Advanced Threat Protection with sandboxing. At the branches, CloudGen WAN can be deployed as an SD-WAN-only solution complementing an existing firewall or as secure SD-WAN with the option to consolidate all functions into a single device.

Customer benefits

- Deploy an SD-WAN network in a fraction of the time compared to existing solutions
- Scale up and down dynamically
- Quickly interconnect all branches and home offices
- Use the Microsoft Global Network as your high-performance WAN backbone
- Achieve best application experience in cloud apps and services, while maintaining high security
- Easily deploy alongside existing firewalls or replace your existing security device
- Optimize cloud access out of the box, with default settings for cloud and SaaS apps
- Enforce full security for branches lacking security solutions
- Enforce web access regulations
- Extend the WAN to Microsoft Azure seamlessly
- Optimize Microsoft 365 user experience
- Replace inflexible MPLS with Microsoft Global Network
- Benefit of monthly SaaS billings instead of long term lock-in



Reliable connectivity across your network

Ensuring connectivity is one of the key tasks of an organization today. Unfortunately, this can be a cumbersome task. Negotiating contracts with MPLS providers requires long-term planing and ends very often in delayed deployments, hard-limit bandwidth assignments, and long contract durations.

By utilizing Azure vWAN and Microsoft Global Network as connectivity backbone, an organization benefits from connectivity that is truely cloud-ready. Be it flexible

consumption-based pricing, or global service level agreements.

For hybrid deployment models, organizations that have certain geopolitical requirements or those that use applications that require an organization's IP address as the source IP address, CloudGen WAN devices can be deployed as a private enforcement node.

Secure the cloud

While protecting the digital assets of an organization on-premise is a quite easy task and literally a no-brainer, this changes the moment digital assets are moved to the cloud. And with the principle of "shared responsibilities" this has become a major challenge in any public-cloud agreement.

CloudGen WAN enforces full security with ACLs, application control, URL filtering, anti-virus, Advanced Threat Protection,

and enables network segmentation and control within Azure Virtual WAN. This eliminates the need for Security Groups, Azure Firewall or Azure Security Partners and replaces these with one flexible solution that is easy to use and more cost efficient. CloudGen WAN additionally provides unprecedented real-time visibility into all traffic entering as well as generated from inside Virtual WAN.

Deployment, administration, and maintenance was never easier

With zero-touch deployment, industry-proven default configurations, and an easy, intuitive management interface, Barracuda CloudGen WAN automates and simplifies all the tasks that traditionally make WAN management complex and challenging.

Barracuda CloudGen WAN delivers a complete set of industry-leading next-generation security capabilities while dramatically reducing IT resource overhead, saving you time and money.

The first firewall on Azure

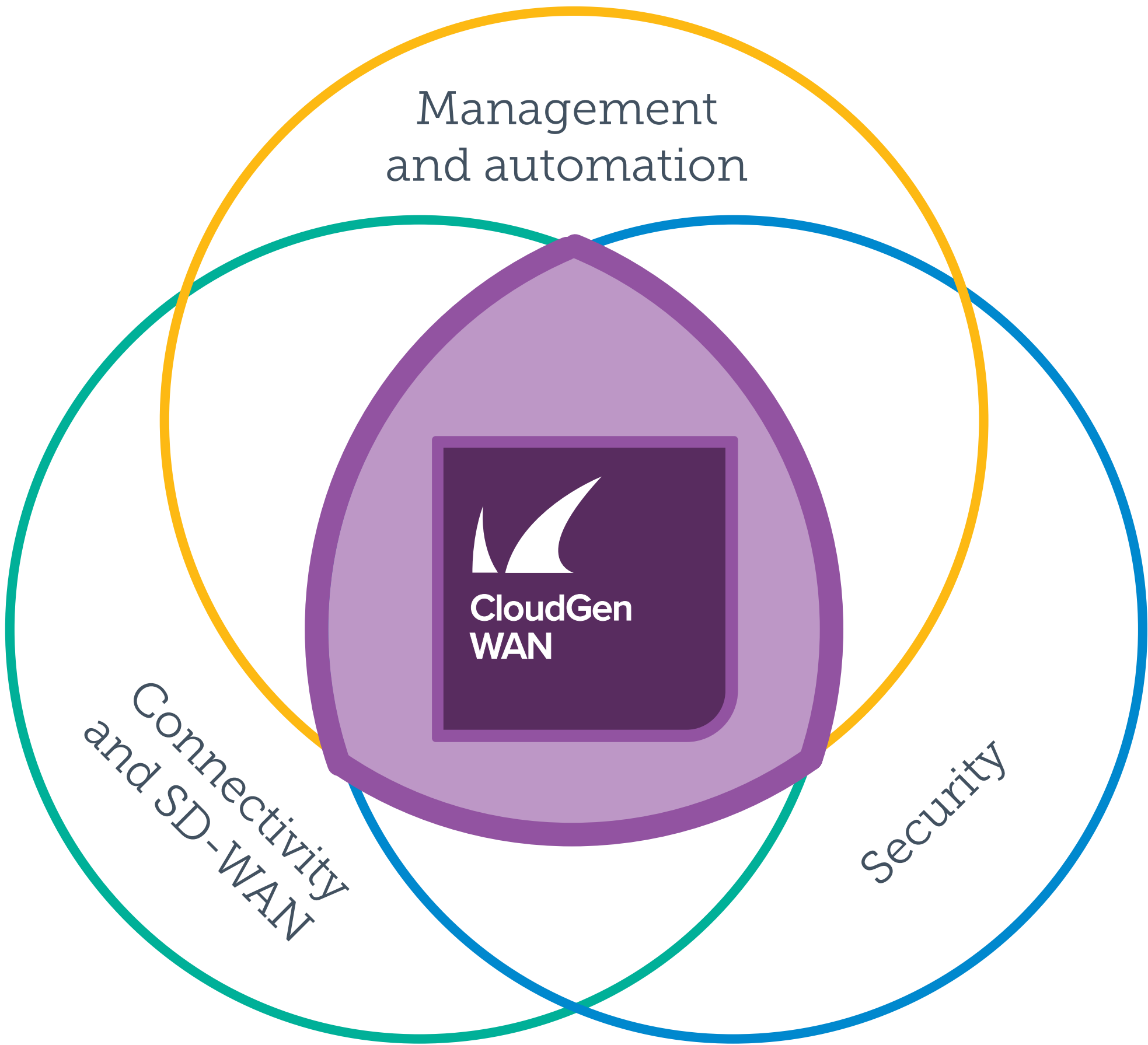
Barracuda CloudGen WAN is based on the same secure backend technology as Barracuda CloudGen Firewall, the first next generation firewall on Azure in 2014. As the first security vendor in the Azure Marketplace, Barracuda builds solutions in Azure and for Azure, achieving deep integration no other vendor can match. With eight current Microsoft Preferred solutions, and active joint development by Microsoft and Barracuda, we make it easy to secure your journey to the Azure cloud.



Barracuda CloudGen WAN Features

Now that we have scratched the surface on what Barracuda CloudGen WAN can do for always-on connectivity and security, let us have a look an how CloudGen WAN accomplishes the challenges.

In a nutshell, Barracuda CloudGen WAN combines industry-leading connectivity and SD-WAN features, enterprise-grade security, and massive management and automation capabilities in one product.



Connectivity and SD-WAN Features

CloudGen WAN brings full SD-WAN functionality to Azure Virtual WAN, Microsoft's native hybrid cloud service. Secure SD-WAN dynamically selects the most suitable uplink for each application in real time, based on traffic characteristics, available bandwidth, and latency between endpoints. This lets you replace MPLS lines by globally connecting your sites via the Microsoft Global Network, the world's fastest private network. Purpose-built for the cloud, CloudGen WAN provides seamless, automated access to your business-critical resources, leveraging a rich feature-set including:

Dynamic bandwidth and latency detection

To achieve the best possible user experience across the WAN, the CloudGen WAN site devices proactively measure the available bandwidths and quality of all internet uplinks and between VPN endpoints. The results are directly available to the security and SD-WAN policy engine to select the best suitable uplink per application or disqualify an uplink if the bandwidth or latency fall outside of acceptable limits.

Application-based routing

A unique combination of next-generation security and adaptive WAN routing technology allows Barracuda CloudGen WAN to dynamically assign available bandwidth, uplink, and routing information based on protocol, user, location, and content as well as application, application categories, and even web content categories. This keeps expensive, highly available lines free for business- and mission-critical applications, while significantly reducing response times and freeing up additional bandwidth.

For a complete list of applications and sub-applications that are covered by application-based routing, please check the [Online Application Explorer](#).

Adaptive session balancing

Barracuda CloudGen WAN uses dynamic bandwidth and latency detection to automatically balance existing sessions inside logical VPN tunnels across all available uplinks. This real-time balancing optimizes network efficiency and bandwidth usage at any given moment.

Adaptive bandwidth protection

If dynamic bandwidth & latency detection indicates that the measured bandwidth of an uplink is not sufficient to sustain the minimally required business-critical traffic (e.g., VoIP), Barracuda CloudGen WAN automatically shifts sessions for non-business-critical traffic to secondary links to free up bandwidth for critical traffic.

WAN compression and caching

Barracuda CloudGen WAN can significantly enhance the WAN performance of cloud-connected network environments by implementing enterprise-grade WAN acceleration features such as forward error correction, data deduplication, traffic compression and protocol optimization. This can significantly improve site-to-cloud WAN traffic and accelerate the delivery of business applications.

Forward Error Correction (FEC)

Secure SD-WAN connections with Barracuda CloudGen WAN are designed for high speed networking across lossy lines such as internet broadband or 4G/5G. The underlying forward error correcting code (FEC) technology to remediate packet loss is based on a new set of algorithms in the category of random linear network codes (RLNC). Algorithms based on RLNC codes react much faster to losses and remediate these faster on the fly, requiring less packet retransmissions and at the same time less overhead for the devices.

When utilizing inexpensive shared internet lines this effectively reserves more of the available bandwidth for

CloudGen WAN over other subscribers, resulting in more available bandwidth and faster application performance.

TINA VPN protocol

Secure SD-WAN between Barracuda Networks devices always utilizes an enhanced version of the IPsec protocol by default to overcome the inherent limitations of IPsec.

The TINA (Transport Independent Network Architecture) protocol allows the use of a combination of TCP, UDP, and ESP for high speed VPN connections, improving the VPN connectivity substantially. It also adds default endpoint-to-endpoint (not network-to-network) connectivity, built in NAT friendliness, built in HTTPS and SOCKS4/5 proxy compatibility, dynamic address support and better VPN tunnel quality via advanced dynamic tunnel heartbeat monitoring.

Personal security

Personal security with Barracuda CloudGen WAN describes the most convenient way to provide connectivity to workloads in Azure for endpoints. Personal security for CloudGen WAN enables remote users to access company resources in Azure over an encrypted connection directly from work-at-home environments or on the go. The underlying protocol is the high-performance TINA VPN protocol, allowing much more stable and resilient always-on connections from remote devices.

CloudGen WAN Personal security benefits compared to other client VPN to Azure solutions:

- No need to deploy additional VPN gateways or services. Personal security is using the existing CloudGen WAN Gateway infrastructure
- Fast and easy to use self-enrollment for end users with a maximum of 4 devices per user
- High-performance connectivity to cloud hosted resources via our TINA protocol - faster, more stable, and more resilient
- Integration with the customers' existing Azure Active Directory
- Lower cost compared to built-in Azure Virtual WAN point-to-site connectivity.

- Lower cost compared to dedicated VPN services - due to PAYG licensing only the actual usage per end user per hour will be charged.

Site authentication

Usually, the office network and web traffic generated by the user are protected by a CloudGen WAN site device. With site authentication, the identity of the user (and the associated privileges and valid log-ons) is preserved when switching from the remote use case with direct connection to Azure to the office network. The CloudGen WAN client will automatically detect the change and ask for re-authentication. This will update user information on the CloudGen WAN Gateway accordingly and allow user-based access control.

USB LTE modem

With the optional USB LTE modem, CloudGen WAN site devices can leverage 4G/LTE connectivity and the cellular infrastructure to provide broadband speeds either in failover or load-balancing configuration. For locations without wired broadband options but sufficient cellular connectivity the USB LTE modem may serve as the primary internet connection. The Barracuda USB LTE modem can even be used for zero-touch deployment of CloudGen WAN site devices in areas where wired internet connectivity is not yet available.

Security Features

CloudGen WAN is built on the same technology as CloudGen Firewall, Barracuda's battle-tested enterprise firewall ("Recommended" in NSS Labs NGFW Group Test 2019). Purpose-built for the cloud, CloudGen WAN provides advanced multi-layered security to protect your business-critical resources, leveraging a rich feature-set including:

URL filtering

The URL filtering feature of CloudGen WAN enables highly granular, real-time visibility into online activity broken down by individual users and applications, letting administrators create and enforce effective internet content and access policies. It protects user productivity, blocks malware downloads and other web-based threats, and enables compliance by blocking access to unwanted websites and servers, providing an important additional layer of security alongside application control.

Advanced Threat Protection

The malware protection functionality built into Barracuda CloudGen WAN shields the internal network from malicious content by scanning web content (HTTP and HTTPS), email (SMTP, POP3), and file transfers (FTP/SFTP) via integrated malware protection based on Barracuda Advanced Threat Protection. It covers viruses, worms, trojans, malicious java applets, and programs using known exploits on PDF, picture and office documents, macro viruses, and many more, even when using stealth or morphing techniques for obfuscation. Resource-intensive sandboxing is offloaded to the Barracuda ATP Cloud with its multiple datacenters in the Americas, mainland Europe, and the UK. A hash fingerprint of each file and the good/bad classification of all sandboxed files are stored and cached for future use, effectively speeding up processing and guaranteeing near instantaneous results.

SSL interception

Barracuda CloudGen WAN can apply IPS, virus protection, application control, URL filtering and even Advanced Threat Protection to SSL encrypted web traffic using the standard 'trusted man-in-the-middle' approach. SSL interception can be fine-tuned to exempt local networks, users/groups, URL filter categories or custom defined domains from SSL inspection.

Intrusion prevention

The Intrusion Prevention System (IPS) of CloudGen WAN strongly enhances network security by providing complete and comprehensive real-time network protection against a broad range of network threats, hacking, vulnerabilities, exploits, and exposures in operating systems, applications, and databases preventing network attacks such as:

- SQL injections and arbitrary code executions
- Access control attempts and privilege escalations
- Cross-site scripting and buffer overflows
- Denial of Service (DoS) and Distributed Denial of Service (DDoS) attacks
- Directory traversal and probing and scanning attempts
- Backdoor attacks, trojans, rootkits, viruses, worms, and spyware

As a result, Barracuda CloudGen WAN can identify and block advanced evasion attempts and obfuscation techniques that are used by attackers to circumvent and trick traditional intrusion prevention systems. Automatic signature updates are delivered on a regular schedule or on an emergency basis upon new vulnerabilities emerging to ensure that Barracuda CloudGen WAN is constantly up to date.

Azure AD two factor authentication

CloudGen WAN uses Azure AD as the default authentication service. CloudGen WAN User Connectivity, using Barracuda's remote access client, supports dual factor authentication where the user is required to confirm log-on via Microsoft's authenticator app.

Management and Automation Features

CloudGen WAN is easy to set up and does not require specialized IT skills. Directly deployed from Azure marketplace, the service works out of the box with smart default configuration, suitable for all cloud and SaaS applications. CloudGen WAN runs natively as a SaaS service inside one or multiple Azure Virtual WAN regions and provides easy, automated access to the Microsoft Global Network. The service can either be rolled out to all locations as a pure SD-WAN solution alongside existing firewalls or as a secure SD-WAN solution replacing existing firewalls.

Zero-touch site deployment

Zero-touch deployment lets you deploy CloudGen WAN site devices directly from the factory to the desired remote location without requiring on-site IT personnel. Simply connect the unit and power it up. With no need for manual configuration on-site, zero-touch deployment allows rolling out CloudGen WAN site devices across widely distributed organizations easily, rapidly, and at very low cost. For sites in areas where wired internet connectivity is not yet available the optional Barracuda USB LTE modem can be used to facilitate the initial rollout.

Simple to operate

Directly managed via the CloudGen WAN management portal for all regions and all sites across your global WAN, regardless of the number of cloud entry points or locations. The central cloud portal offers the highest degree of automation and unparalleled ease of use. CloudGen WAN continuously monitors and optimizes network performance to ensure uninterrupted always-on connectivity and high quality of service levels for your business-critical traffic and applications.

Once only central management

The CloudGen WAN management portal hosts security, networking and SD-WAN connectivity rules that are applied and enforced automatically across all site devices and endpoints hosted with your CloudGen WAN subscription.

E.g., an SD-WAN or security policy only needs to be defined once and automatically gets distributed and enforced across all locations and users.

User & Group based security policies

For URL filtering, malware protection, SSL inspection, IPS and firewall rules (ACLs), users or groups can be defined as an inclusion criteria. This allows certain website categories for a specific user or group (e.g., “marketing” access to Facebook while blocking it to anybody else) or exempt certain users or user groups from IPS or SSL scanning.

Azure Log Analytics / Azure Sentinel

Azure Sentinel and the underlying Azure Log Analytics is Microsoft’s solution to collect, monitor, analyze, and act on telemetry data from any application hosted in Azure- and on-premises environments, and even corresponding networking and security equipment. This allows customers to automate the analysis of the underlying data, set up alerts, and use machine learning–driven insights to quickly identify and resolve problems related to security and connectivity of their cloud infrastructure, without logging into the actual machines or devices. CloudGen WAN, if configured, sends relevant log data for security, connectivity, SD-WAN, and point-to-site to Azure Log Analytics for further analysis.

Support for Azure Secured Hub

Azure Secured Hub is a secured Azure Virtual WAN hub with associated security and routing policies configured by the Azure Firewall Manager, with outbound security provided by an approved Azure security partner provider service. Barracuda CloudGen WAN is fully compatible for deployment in these scenarios providing SD-WAN connectivity and next-generation firewall security to every site and high performance private access to cloud resources for endpoints.

Component overview

CloudGen WAN service for Microsoft Azure

SCALE UNIT	2	4	10	20	30	40	60	80
PERFORMANCE								
Aggregated bandwidth	1 Gbps	2 Gbps	5 Gbps	10 Gbps	15 Gbps	20 Gbps	30 Gbps	40 Gbps
Max. single tunnel performance	500 Mbps	1 Gbps	2.5 Gbps	5 Gbps	7 Gbps	10 Gbps	15 Gbps	15 Gbps
AVAILABLE SOFTWARE/FEATURE SUBSCRIPTIONS								
Energize Updates	✓	✓	✓	✓	✓	✓	✓	✓

for private cloud or on-premise

All desktop, rack mount, and virtual site devices can be promoted to run as a CloudGen WAN service.

CloudGen WAN site devices

Hardware appliances

	DESKTOP		1U RACK MOUNT			DIN RAIL COMPATIBLE			
	T100B	T200C	T400C	T600D	T900B	SC2	SC3	T93A	T193A
PERFORMANCE	page 12	page 13	page 14	page 15	page 16	page 17 ff.	page 25 ff.	page 29	page 30
Site performance up to	300 Mbps	1.3 Gbps	3.0 Gbps	6.0 Gbps	9.3 Gbps	30 Mbps	30 Mbps	200 Mbps	240 Mbps
Recommended no. of users	50-100	150-300	300-1,000	1,000-4,000	6,000-9,000	n/a	n/a	50-100	150-300
Concurrent sessions	80,000	300,000	500,000	2,100,000	4,000,000	n/a	n/a	80,000	250,000
New session/s	8,000	12,000	20,000	115,000	190,000	n/a	n/a	8,000	12,000
HARDWARE									
Rugged hardware version	-	-	-	-	-	-	✓	✓	✓
Copper ethernet NICs [1 GbE]	5x	12x	8x	10x	8x	4x	4x	2x	5x
Fiber NICs (SFP) [1 GbE]	-	4x	-	8x	8x	-	-	1x	2x
Fiber NICs (SFP+) [10 GbE]	-	-	2x	2x	4x	-	-	-	-
Fiber NICs (QSFP+) [40 GbE]	-	-	-	-	2x	-	-	-	-
AVAILABLE SOFTWARE/FEATURE SUBSCRIPTIONS									
Energize Updates	MANDATORY								

Virtual appliances

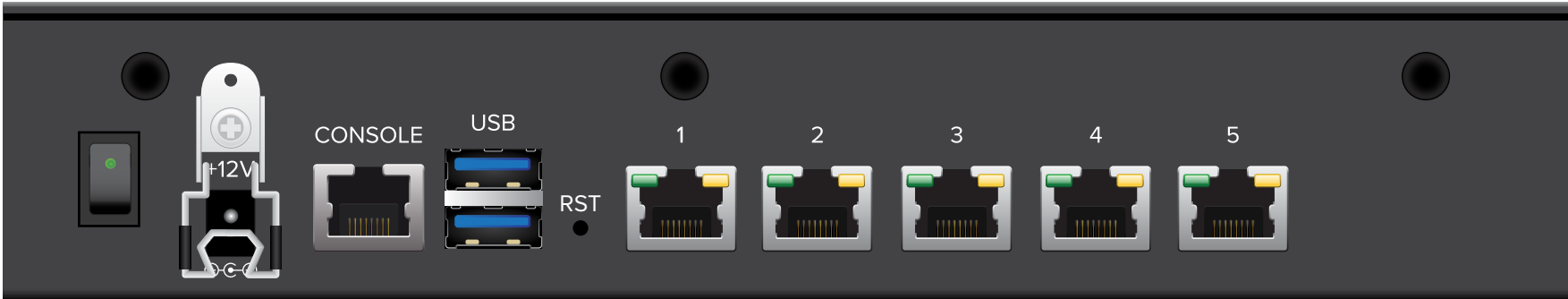
	VT100	VT500	VT1500	VT3000	VT5000
PERFORMANCE					
Site performance up to	300 Mbps	700 Mbps	1.5 Gbps	3.8 Gbps	9.3 Gbps
Recommended no. of users	50-100	150-300	300-1,000	1,000-4,000	6,000-9,000
Concurrent sessions	80,000	250,000	500,000	2,100,000	4,000,000
New session/s	8,000	12,000	20,000	115,000	190,000
HARDWARE					
Licensed vCPUs	2	4	8	10	up to 32
Virtual NICs	5-16x	5-16x	5-16x	5-16x	5-16x
AVAILABLE SOFTWARE/FEATURE SUBSCRIPTIONS					
Energize Updates	MANDATORY				

SPECIFICATIONS - CLOUDGEN WAN SITE DEVICES (DESKTOP)

CloudGen WAN T100B



INTERFACES	
Copper ethernet NICs (1 GbE)	5x
USB 3.0	2x
Serial / console	1x RJ45
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]	
Site performance (up to) [Mbps]	300
Concurrent sessions	80,000
New sessions/s	8,000
Max. number of concurrent users	50-100
MEMORY	
RAM [GB]	4
MASS STORAGE	
Type	SSD
Size ([GB] or better)	80
SSD MTBF [hours]	1,200,000
SIZE, WEIGHT, DIMENSIONS	
Weight appliance [lbs] / [kg]	4.4 / 2.0
Appliance size: width x depth x height [in]	9.1 x 6.0 x 1.7
Appliance size: width x depth x height [mm]	232 x 153 x 44
Weight carton with appliance [lbs] / [kg]	7.7 / 3.5
Carton size: width x depth x height [in]	12.2 x 10.2 x 7.1
Carton size: width x depth x height [mm]	310 x 260 x 180
Form factor	Desktop
HARDWARE	
Display	-
Cooling	Fanless
ENVIRONMENTAL	
Noise emission [db/A]	n/a
Operating temperature [°F] / [°C]	+30 to +105 / 0 to +40
Storage temperature [°F] / [°C]	-5 to +160 / -20 to +70
Operating humidity (non-condensing)	5% to 95%



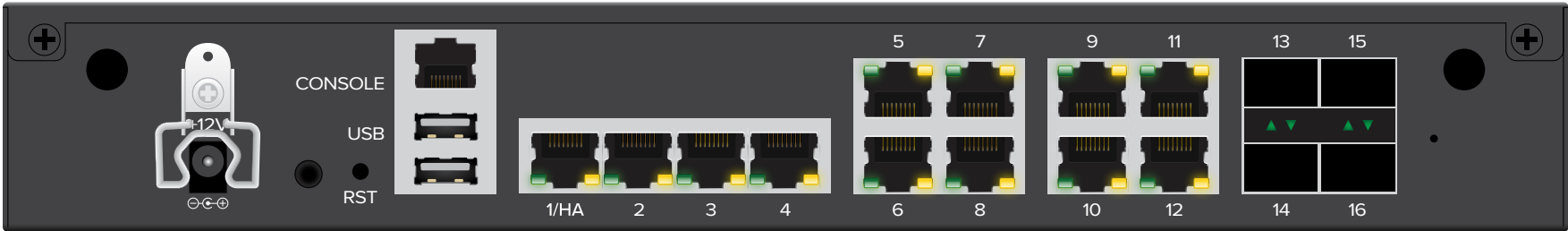
MTBF [SYSTEM]	
MTBF [yrs.] ^[a]	> 5
POWER AND EFFICIENCY	
Power supply	Single, 12V
Power supply type	External power brick
Power type [AC/DC]	DC
Input ratings [Volts]	100-240
Input frequency [Hz]	50-60
Auto sense	✓
Max. power draw [W]	45
Max. power draw @ 120V [Amps]	0.4
Max. power draw @ 230V [Amps]	0.2
Max. heat dissipation [W]	26.7
Max. heat dissipation [BTU]	90.9
Energy efficiency (average)	> 93%
CERTIFICATIONS AND COMPLIANCE (ALSO SEE PAGE 50)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
External power brick and cables	✓
USB flash drive for recovery and installation	✓
Quick start guide	✓
2x Barracuda wall mount bracket	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a
- MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

CloudGen WAN T200C



INTERFACES	
Copper ethernet NICs (1 GbE)	12x
SFP fiber NICs (1 GbE)	4x
USB 3.0	2x
Serial / console	1x RJ45
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]	
Site performance (up to) [Gbps]	1.3
Concurrent sessions	300,000
New sessions/s	12,000
Max. number of concurrent users	150-300
MEMORY	
RAM [GB]	4
MASS STORAGE	
Type	SSD
Size [(GB) or better]	80
SSD MTBF [hours]	1,200,000
SIZE, WEIGHT, DIMENSIONS	
Weight appliance [lbs] / [kg]	5.1 / 2.3
Appliance size: width x depth x height [in]	11.8 x 8.6 x 1.7
Appliance size: width x depth x height [mm]	300 x 219 x 44
Weight carton with appliance [lbs] / [kg]	10.1 / 4.6
Carton size: width x depth x height [in]	15.7 x 13.4 x 7.3
Carton size: width x depth x height [mm]	400 x 340 x 185
Form factor	Desktop
HARDWARE	
Display	-
Cooling	Fan
ENVIRONMENTAL	
Noise emission [db/A]	< 40
Operating temperature [°F] / [°C]	+30 to +95 / 0 to +40
Storage temperature [°F] / [°C]	-5 to +160 / -20 to +70
Operating humidity (non-condensing)	10% to 95%

MTBF [SYSTEM]	
MTBF [yrs.] ^[a]	> 5
POWER AND EFFICIENCY	
Power supply	Single
Power supply type	External power brick
Power type [AC/DC]	AC
Input ratings [Volts]	90-264
Input frequency [Hz]	50-60
Auto sense	n/a
Max. power draw [W]	90
Max. power draw @ 120V [Amps]	4
Max. power draw @ 230V [Amps]	2
Max. heat dissipation [W]	52
Max. heat dissipation [BTU]	180
Energy efficiency (average)	> 89%
CERTIFICATIONS AND COMPLIANCE (ALSO SEE PAGE 50)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
External power brick and cables	✓
USB flash drive for recovery and installation	✓
Quick start guide	✓
2x Wireless antenna	✓
2x Barracuda L-shape rack mount bracket	✓

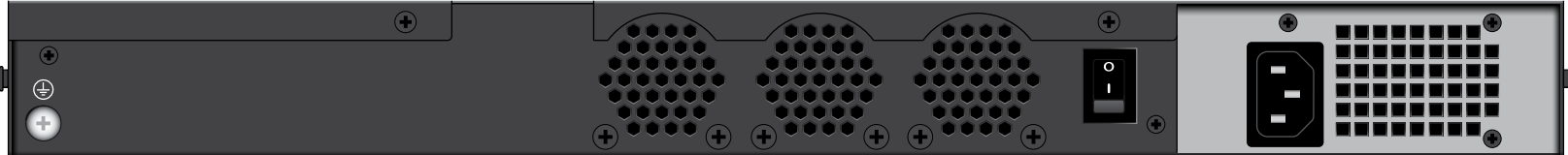
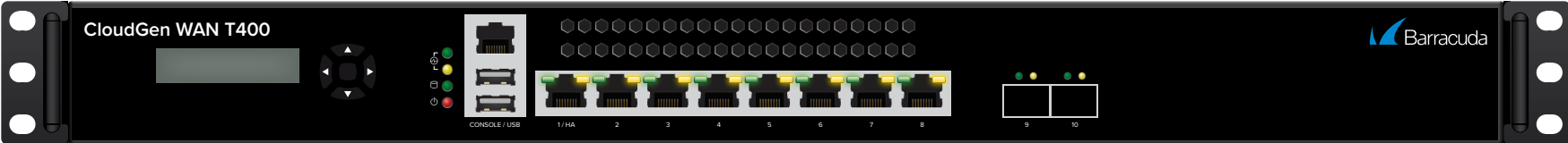
All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

a MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

SPECIFICATIONS - CLOUDGEN WAN SITE DEVICES (1U RACK MOUNT)

CloudGen WAN T400C



INTERFACES	
Copper ethernet NICs (1 GbE)	8x
SFP+ fiber NICs (10 GbE)	2x
USB 3.0	2x
Serial / console	1x RJ45
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]	
Site performance (up to) [Gbps]	3.0
Concurrent sessions	500,000
New sessions/s	20,000
Max. number of concurrent users	300-1,000
MEMORY	
RAM [GB]	4
MASS STORAGE	
Type	SSD
Size [(GB) or better]	80
SSD MTBF [hours]	1,200,000
SIZE, WEIGHT, DIMENSIONS	
Weight appliance [lbs] / [kg]	16.5 / 7.5
Appliance size: width x depth x height [in]	17.2 x 17.3 x 1.7
Appliance size: width x depth x height [mm]	438 x 440 x 44
Weight carton with appliance [lbs] / [kg]	22.5 / 10.2
Carton size: width x depth x height [in]	24.4 x 23.2 x 7.9
Carton size: width x depth x height [mm]	620 x 590 x 200
Form factor	1U rack mount
HARDWARE	
Display	✓
Cooling	Fan
ENVIRONMENTAL	
Noise emission [db/A]	n/a
Operating temperature [°F] / [°C]	+30 to +95 / 0 to +40
Storage temperature [°F] / [°C]	-5 to +160 / -20 to +70
Operating humidity (non-condensing)	5% to 95%

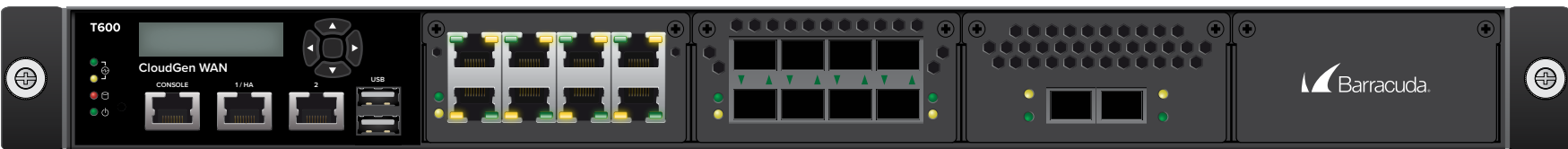
MTBF [SYSTEM]	
MTBF [yrs.] ^[a]	> 5
POWER AND EFFICIENCY	
Power supply	Single
Power supply type	Internal
Power type [AC/DC]	AC
Input ratings [Volts]	100-240
Input frequency [Hz]	50-60
Auto sense	✓
Max. power draw [W]	300
Max. power draw @ 120V [Amps]	5
Max. power draw @ 230V [Amps]	2.6
Max. heat dissipation [W]	300
Max. heat dissipation [BTU]	1,024
Energy efficiency (average)	> 80%
CERTIFICATIONS AND COMPLIANCE (ALSO SEE PAGE 50)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
Direct power-to-wall outlet	✓
USB flash drive for recovery and installation	✓
Quick start guide	✓
2x Barracuda L-shape rack mount bracket	✓
Barracuda rail kit	Optional

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

a MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

CloudGen WAN T600D



INTERFACES	
Copper ethernet NICs (1 GbE)	10x
SFP fiber NICs (1 GbE)	8x
SFP+ fiber NICs (10 GbE)	2x
USB 2.0	2x
Serial / console	1x RJ45
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]	
Site performance (up to) [Gbps]	6.0
Concurrent sessions	2,100,000
New sessions/s	115,000
Max. number of concurrent users	1,000-4,000
MEMORY	
RAM [GB]	8
MASS STORAGE	
Type	SSD
Size [(GB) or better]	240
SSD MTBF [hours]	1,200,000
SIZE, WEIGHT, DIMENSIONS	
Weight appliance [lbs] / [kg]	22.0 / 10.0
Appliance size: width x depth x height [in]	17.3 x 19.7 x 1.7
Appliance size: width x depth x height [mm]	440 x 500 x 44
Weight carton with appliance [lbs] / [kg]	26.5 / 12.0
Carton size: width x depth x height [in]	25.6 x 23.2 x 7.9
Carton size: width x depth x height [mm]	650 x 590 x 200
Form factor	1U rack mount
HARDWARE	
Display	✓
Cooling	Fan
ENVIRONMENTAL	
Noise emission [db/A]	n/a
Operating temperature [°F] / [°C]	+32 to +104 / 0 to +40
Storage temperature [°F] / [°C]	-4 to +167 / -20 to +75
Operating humidity (non-condensing)	10% to 85%

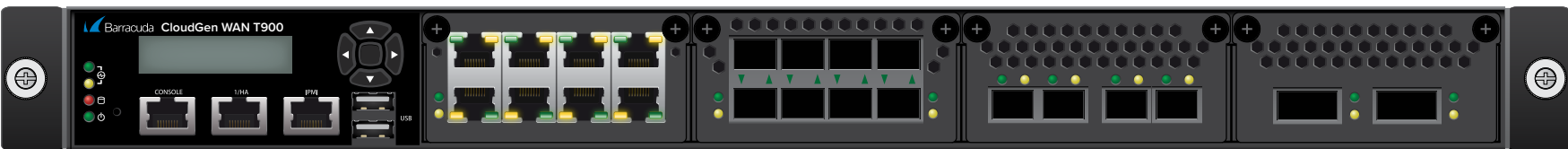
MTBF [SYSTEM]	
MTBF [yrs.] ^[a]	> 5
POWER AND EFFICIENCY	
Power supply	Dual hot swap
Power supply type	Internal
Power type [AC/DC]	AC
Input ratings [Volts]	100-240
Input frequency [Hz]	50-60
Auto sense	✓
Max. power draw [W]	300
Max. power draw @ 120V [Amps]	5
Max. power draw @ 230V [Amps]	2.6
Max. heat dissipation [W]	300
Max. heat dissipation [BTU]	1,024
Energy efficiency (average)	> 80%
CERTIFICATIONS AND COMPLIANCE (ALSO SEE PAGE 50)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
Direct power-to-wall outlet	✓
USB flash drive for recovery and installation	✓
Quick start guide	✓
2x Barracuda L-shape rack mount bracket	✓
Barracuda rail kit	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

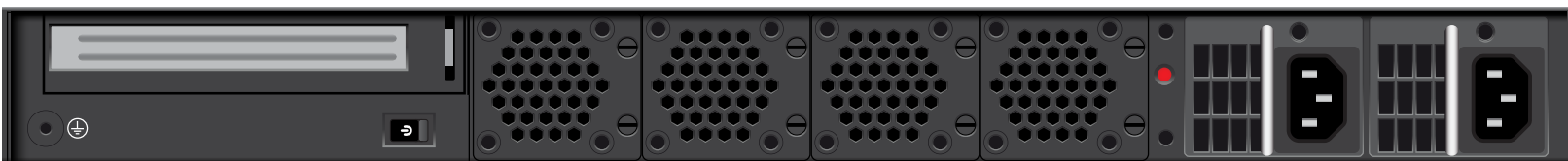
- a
- MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

CloudGen WAN T900B



INTERFACES	
Copper ethernet NICs (1 GbE)	8x
SFP fiber NICs (1 GbE)	8x
SFP+ fiber NICs (10 GbE)	4x
QSFP+ fiber NICs (40 GbE)	2x
USB 2.0	2x
IPMI	1x RJ45
Serial / console	1x RJ45
Management	1x RJ45
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]	
Site performance (up to) [Gbps]	9.3
Concurrent sessions	4,000,000
New sessions/s	190,000
Max. number of concurrent users	6,000-9,000
MEMORY	
RAM ([GB] or better)	32
MASS STORAGE	
Type	SSD
Size ([GB] or better)	430
SSD MTBF [hours]	1,200,000
SIZE, WEIGHT, DIMENSIONS	
Weight appliance [lbs] / [kg]	26.0 / 12.0
Appliance size: width x depth x height [in]	17.2 x 22.4 x 1.7
Appliance size: width x depth x height [mm]	440 x 570 x 44
Weight carton with appliance [lbs] / [kg]	44.0 / 20.0
Carton size: width x depth x height [in]	23.0 x 30.5 x 9.0
Carton size: width x depth x height [mm]	585 x 775 x 229
Form factor	1U rack mount
HARDWARE	
Display	✓
Cooling	Fan
ENVIRONMENTAL	
Noise emission [db/A]	< 75
Operating temperature [°F] / [°C]	+32 to +104 / 0 to +40
Storage temperature [°F] / [°C]	-4 to +167 / -20 to +75
Operating humidity (non-condensing)	10% to 85%



MTBF [SYSTEM]	
MTBF [yrs.] ^[a]	> 4
POWER AND EFFICIENCY	
Power supply	Dual hot swap
Power supply type	Internal
Power type [AC/DC]	AC
Input ratings [Volts]	100-240
Input frequency [Hz]	50-60
Auto sense	✓
Max. power draw [W]	500
Max. power draw @ 120V [Amps]	8
Max. power draw @ 230V [Amps]	4
Max. heat dissipation [W]	~ 400
Max. heat dissipation [BTU]	~ 1,366
Energy efficiency (average)	88%
CERTIFICATIONS AND COMPLIANCE (ALSO SEE PAGE 50)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
Direct power-to-wall outlet	✓
USB flash drive for recovery and installation	✓
Quick start guide	✓
2x Barracuda L-shape rack mount bracket	✓
Barracuda rail kit	✓

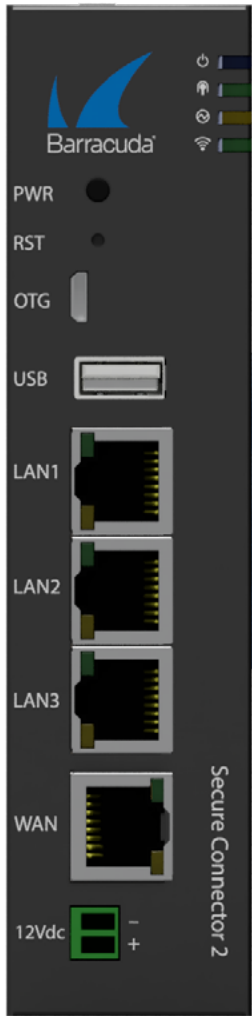
All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a
- MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

SPECIFICATIONS - CLOUDGEN WAN SITE DEVICES (DIN RAIL COMPATIBLE)

Secure Connector 20



INTERFACES		
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x	
LAN copper NICs (LAN switch; 1 GbE)	3x	
USB 2.0	1	
Micro-USB OTG	1	
WiFi (access point / client mode)	-	
SUPPORTED CELLULAR NETWORKS		
GSM / UMTS	-	
4G / LTE	-	
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]		
Firewall throughput (UDP) [Mbps]	300	
WiFi AP mode throughput (UDP) [Mbps]	N/A	
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30	
MEMORY		
RAM [GB]	1	
MASS STORAGE		
Type	Micro SD	
Size [GB]	16	
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 31)		
Weight appliance [lbs] / [kg]	1.21 / 0.55	
Appliance size: width x depth x height [in]	1.5 x 5.5 x 5.9	
Appliance size: width x depth x height [mm]	37 x 140 x 150	
Weight carton with appliance [lbs] / [kg]	1.98 / 0.9	
Carton size: width x depth x height [in]	2.6 x 9.1 x 10.8	
Carton size: width x depth x height [mm]	65 x 230 x 275	
Form factor	Compact, DIN rail	
HARDWARE		
Cooling	Fanless	
ENVIRONMENTAL		
Noise emission [db/A]	N/A	
Operating temperature [°F] / [°C]	+30 to +105 / 0 to +40	
Storage temperature [°F] / [°C]	-5 to +160 / -20 to +70	
Operating humidity (non-condensing)	5% to 95%	

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

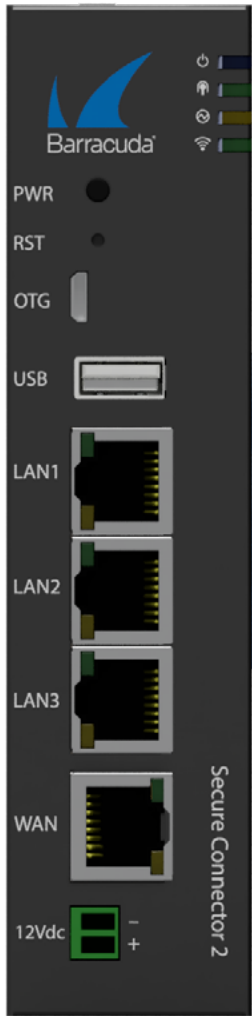
MTBF [SYSTEM]	
MTBF [yrs.] ^[b]	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single
Power supply type	External brick
Power type [AC/DC]	AC
Input rating [Volts]	100-240
Input frequency [Hz]	50-60
Max. power draw [W]	40
Max. power draw @ 12V [Amps.]	3.33
Max. heat dissipation [W]	40
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
USB type A to MicroUSB cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓
2x WiFi antenna	-
2x Cellular antenna with 1.5m cable	-

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.
- b MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 21



INTERFACES		
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x	
LAN copper NICs (LAN switch; 1 GbE)	3x	
USB 2.0	1	
Micro-USB OTG	1	
WiFi (access point / client mode)	✓	
SUPPORTED CELLULAR NETWORKS		
GSM / UMTS	-	
4G / LTE	-	
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]		
Firewall throughput (UDP) [Mbps]	300	
WiFi AP mode throughput (UDP) [Mbps]	80	
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30	
MEMORY		
RAM [GB]	1	
MASS STORAGE		
Type	Micro SD	
Size [GB]	16	
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 32)		
Weight appliance [lbs] / [kg]	1.21 / 0.55	
Appliance size: width x depth x height [in]	1.5 x 5.5 x 5.9	
Appliance size: width x depth x height [mm]	37 x 140 x 150	
Weight carton with appliance [lbs] / [kg]	1.98 / 0.9	
Carton size: width x depth x height [in]	2.6 x 9.1 x 10.8	
Carton size: width x depth x height [mm]	65 x 230 x 275	
Form factor	Compact, DIN rail	
HARDWARE		
Cooling	Fanless	
ENVIRONMENTAL		
Noise emission [db/A]	N/A	
Operating temperature [°F] / [°C]	+30 to +105 / 0 to +40	
Storage temperature [°F] / [°C]	-5 to +160 / -20 to +70	
Operating humidity (non-condensing)	5% to 95%	

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

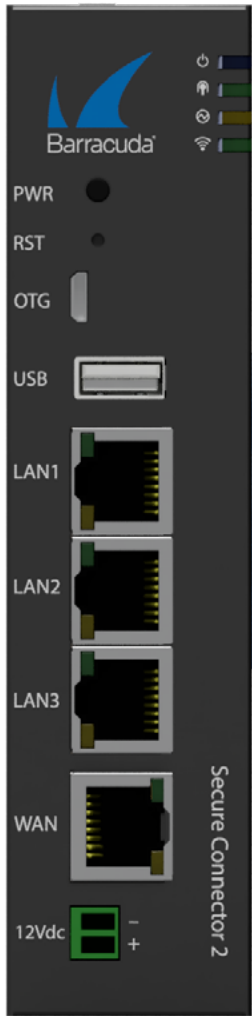
MTBF [SYSTEM]	
MTBF [yrs.] ^[b]	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single
Power supply type	External brick
Power type [AC/DC]	AC
Input rating [Volts]	100-240
Input frequency [Hz]	50-60
Max. power draw [W]	40
Max. power draw @ 12V [Amps.]	3.33
Max. heat dissipation [W]	40
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
USB type A to MicroUSB cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓
2x WiFi antenna	✓
2x Cellular antenna with 1.5m cable	-

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.
- b MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 24



INTERFACES		
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x	
LAN copper NICs (LAN switch; 1 GbE)	3x	
USB 2.0	1	
Micro-USB OTG	1	
WiFi (access point / client mode)	-	
SUPPORTED CELLULAR NETWORKS		
GSM / UMTS	✓ (International)	
4G / LTE	✓ (International)	
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]		
Firewall throughput (UDP) [Mbps]	300	
WiFi AP mode throughput (UDP) [Mbps]	N/A	
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30	
MEMORY		
RAM [GB]	1	
MASS STORAGE		
Type	Micro SD	
Size [GB]	16	
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 33)		
Weight appliance [lbs] / [kg]	1.21 / 0.55	
Appliance size: width x depth x height [in]	1.5 x 5.5 x 5.9	
Appliance size: width x depth x height [mm]	37 x 140 x 150	
Weight carton with appliance [lbs] / [kg]	1.98 / 0.9	
Carton size: width x depth x height [in]	2.6 x 9.1 x 10.8	
Carton size: width x depth x height [mm]	65 x 230 x 275	
Form factor	Compact, DIN rail	
HARDWARE		
Cooling	Fanless	
ENVIRONMENTAL		
Noise emission [db/A]	N/A	
Operating temperature [°F] / [°C]	+30 to +105 / 0 to +40	
Storage temperature [°F] / [°C]	-5 to +160 / -20 to +70	
Operating humidity (non-condensing)	5% to 95%	

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

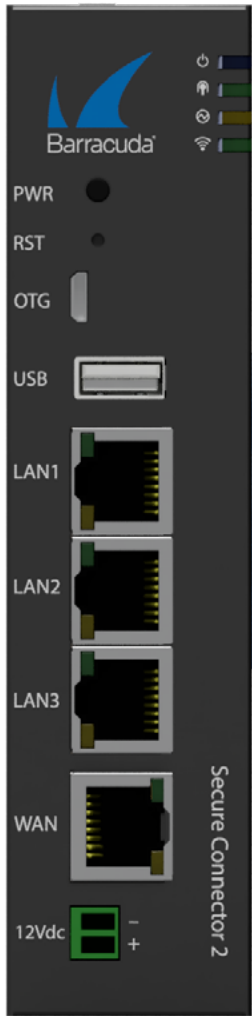
MTBF [SYSTEM]	
MTBF [yrs.] ^[b]	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single
Power supply type	External brick
Power type [AC/DC]	AC
Input rating [Volts]	100-240
Input frequency [Hz]	50-60
Max. power draw [W]	40
Max. power draw @ 12V [Amps.]	3.33
Max. heat dissipation [W]	40
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
USB type A to MicroUSB cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓
2x WiFi antenna	-
2x Cellular antenna with 1.5m cable	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.
- b MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 25



INTERFACES		
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x	
LAN copper NICs (LAN switch; 1 GbE)	3x	
USB 2.0	1	
Micro-USB OTG	1	
WiFi (access point / client mode)	✓	
SUPPORTED CELLULAR NETWORKS		
GSM / UMTS	✓ (International)	
4G / LTE	✓ (International)	
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]		
Firewall throughput (UDP) [Mbps]	300	
WiFi AP mode throughput (UDP) [Mbps]	80	
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30	
MEMORY		
RAM [GB]	1	
MASS STORAGE		
Type	Micro SD	
Size [GB]	16	
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 34)		
Weight appliance [lbs] / [kg]	1.21 / 0.55	
Appliance size: width x depth x height [in]	1.5 x 5.5 x 5.9	
Appliance size: width x depth x height [mm]	37 x 140 x 150	
Weight carton with appliance [lbs] / [kg]	1.98 / 0.9	
Carton size: width x depth x height [in]	2.6 x 9.1 x 10.8	
Carton size: width x depth x height [mm]	65 x 230 x 275	
Form factor	Compact, DIN rail	
HARDWARE		
Cooling	Fanless	
ENVIRONMENTAL		
Noise emission [db/A]	N/A	
Operating temperature [°F] / [°C]	+30 to +105 / 0 to +40	
Storage temperature [°F] / [°C]	-5 to +160 / -20 to +70	
Operating humidity (non-condensing)	5% to 95%	

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

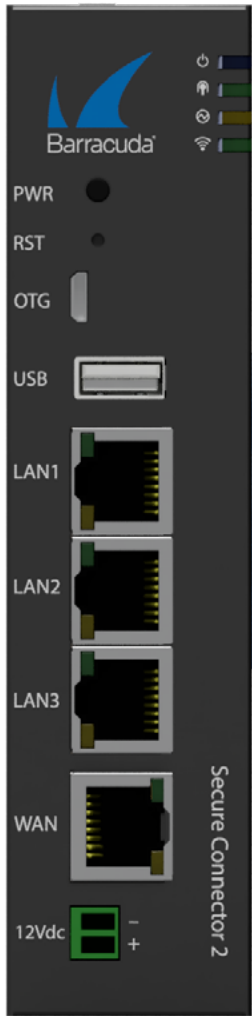
MTBF [SYSTEM]	
MTBF [yrs.] ^[b]	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single
Power supply type	External brick
Power type [AC/DC]	AC
Input rating [Volts]	100-240
Input frequency [Hz]	50-60
Max. power draw [W]	40
Max. power draw @ 12V [Amps.]	3.33
Max. heat dissipation [W]	40
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
USB type A to MicroUSB cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓
2x WiFi antenna	✓
2x Cellular antenna with 1.5m cable	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.
- b MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 26



INTERFACES	
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x
LAN copper NICs (LAN switch; 1 GbE)	3x
USB 2.0	1
Micro-USB OTG	1
WiFi (access point / client mode)	-
SUPPORTED CELLULAR NETWORKS	
GSM / UMTS	✓ (US/CA)
4G / LTE	✓ (US/CA)
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]	
Firewall throughput (UDP) [Mbps]	300
WiFi AP mode throughput (UDP) [Mbps]	N/A
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30
MEMORY	
RAM [GB]	1
MASS STORAGE	
Type	Micro SD
Size [GB]	16
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 35)	
Weight appliance [lbs] / [kg]	1.21 / 0.55
Appliance size: width x depth x height [in]	1.5 x 5.5 x 5.9
Appliance size: width x depth x height [mm]	37 x 140 x 150
Weight carton with appliance [lbs] / [kg]	1.98 / 0.9
Carton size: width x depth x height [in]	2.6 x 9.1 x 10.8
Carton size: width x depth x height [mm]	65 x 230 x 275
Form factor	Compact, DIN rail
HARDWARE	
Cooling	Fanless
ENVIRONMENTAL	
Noise emission [db/A]	N/A
Operating temperature [°F] / [°C]	+30 to +105 / 0 to +40
Storage temperature [°F] / [°C]	-5 to +160 / -20 to +70
Operating humidity (non-condensing)	5% to 95%

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

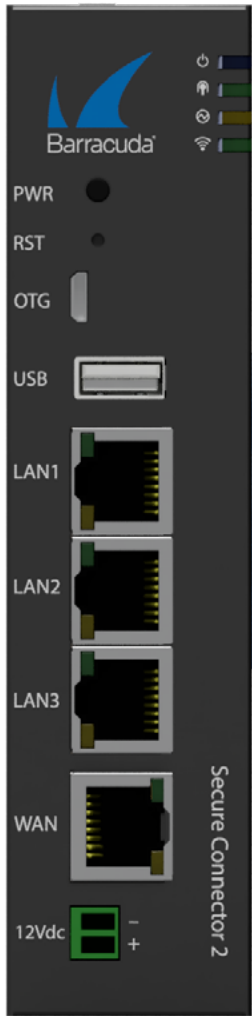
MTBF [SYSTEM]	
MTBF [yrs.] ^[b]	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single, external
Power supply type	External brick
Power type [AC/DC]	AC
Input rating [Volts]	100-240
Input frequency [Hz]	50-60
Max. power draw [W]	40
Max. power draw @ 12V [Amps.]	3.33
Max. heat dissipation [W]	40
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
USB type A to MicroUSB cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓
2x WiFi antenna	-
2x Cellular antenna with 1.5m cable	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.
- b MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 27



INTERFACES		
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x	
LAN copper NICs (LAN switch; 1 GbE)	3x	
USB 2.0	1	
Micro-USB OTG	1	
WiFi (access point / client mode)	✓	
SUPPORTED CELLULAR NETWORKS		
GSM / UMTS	✓ (US/CA)	
4G / LTE	✓ (US/CA)	
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]		
Firewall throughput (UDP) [Mbps]	300	
WiFi AP mode throughput (UDP) [Mbps]	80	
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30	
MEMORY		
RAM [GB]	1	
MASS STORAGE		
Type	Micro SD	
Size [GB]	16	
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 36)		
Weight appliance [lbs] / [kg]	1.21 / 0.55	
Appliance size: width x depth x height [in]	1.5 x 5.5 x 5.9	
Appliance size: width x depth x height [mm]	37 x 140 x 150	
Weight carton with appliance [lbs] / [kg]	1.98 / 0.9	
Carton size: width x depth x height [in]	2.6 x 9.1 x 10.8	
Carton size: width x depth x height [mm]	65 x 230 x 275	
Form factor	Compact, DIN rail	
HARDWARE		
Cooling	Fanless	
ENVIRONMENTAL		
Noise emission [db/A]	N/A	
Operating temperature [°F] / [°C]	+30 to +105 / 0 to +40	
Storage temperature [°F] / [°C]	-5 to +160 / -20 to +70	
Operating humidity (non-condensing)	5% to 95%	

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

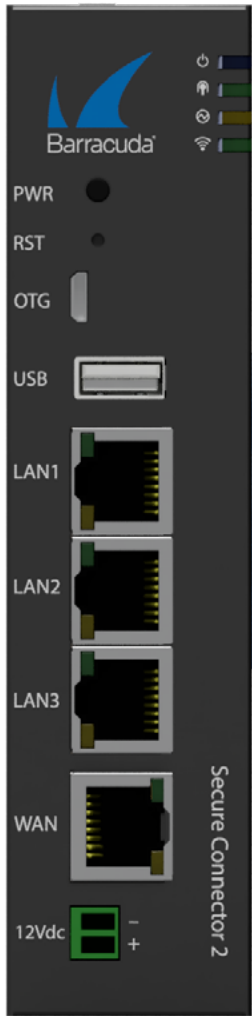
MTBF [SYSTEM]	
MTBF [yrs.] ^[b]	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single, external
Power supply type	External brick
Power type [AC/DC]	AC
Input rating [Volts]	100-240
Input frequency [Hz]	50-60
Max. power draw [W]	40
Max. power draw @ 12V [Amps.]	3.33
Max. heat dissipation [W]	40
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
USB type A to MicroUSB cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓
2x WiFi antenna	✓
2x Cellular antenna with 1.5m cable	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.
- b MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 28



INTERFACES		
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x	
LAN copper NICs (LAN switch; 1 GbE)	3x	
USB 2.0	1	
Micro-USB OTG	1	
WiFi (access point / client mode)	-	
SUPPORTED CELLULAR NETWORKS		
GSM / UMTS	✓ (US/CA - Verizon)	
4G / LTE	✓ (US/CA - Verizon)	
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]		
Firewall throughput (UDP) [Mbps]	300	
WiFi AP mode throughput (UDP) [Mbps]	N/A	
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30	
MEMORY		
RAM [GB]	1	
MASS STORAGE		
Type	Micro SD	
Size [GB]	16	
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 37)		
Weight appliance [lbs] / [kg]	1.21 / 0.55	
Appliance size: width x depth x height [in]	1.5 x 5.5 x 5.9	
Appliance size: width x depth x height [mm]	37 x 140 x 150	
Weight carton with appliance [lbs] / [kg]	1.98 / 0.9	
Carton size: width x depth x height [in]	2.6 x 9.1 x 10.8	
Carton size: width x depth x height [mm]	65 x 230 x 275	
Form factor	Compact, DIN rail	
HARDWARE		
Cooling	Fanless	
ENVIRONMENTAL		
Noise emission [db/A]	N/A	
Operating temperature [°F] / [°C]	+30 to +105 / 0 to +40	
Storage temperature [°F] / [°C]	-5 to +160 / -20 to +70	
Operating humidity (non-condensing)	5% to 95%	

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

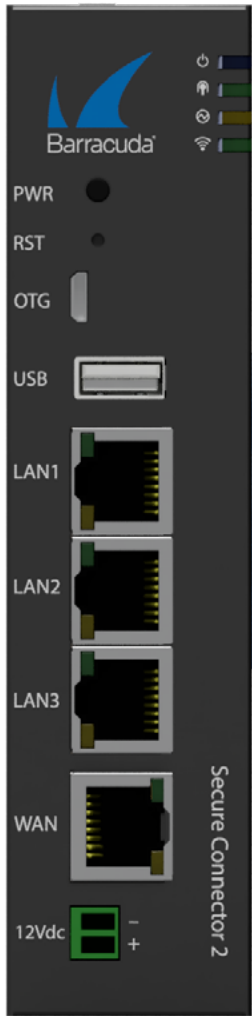
MTBF [SYSTEM]	
MTBF [yrs.] ^[b]	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single, external
Power supply type	External brick
Power type [AC/DC]	AC
Input rating [Volts]	100-240
Input frequency [Hz]	50-60
Max. power draw [W]	40
Max. power draw @ 12V [Amps.]	3.33
Max. heat dissipation [W]	40
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
USB type A to MicroUSB cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓
2x WiFi antenna	-
2x Cellular antenna with 1.5m cable	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.
- b MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 29



INTERFACES		
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x	
LAN copper NICs (LAN switch; 1 GbE)	3x	
USB 2.0	1	
Micro-USB OTG	1	
WiFi (access point / client mode)	✓	
SUPPORTED CELLULAR NETWORKS		
GSM / UMTS	✓ (US/CA - Verizon)	
4G / LTE	✓ (US/CA - Verizon)	
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]		
Firewall throughput (UDP) [Mbps]	300	
WiFi AP mode throughput (UDP) [Mbps]	80	
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30	
MEMORY		
RAM [GB]	1	
MASS STORAGE		
Type	Micro SD	
Size [GB]	16	
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 38)		
Weight appliance [lbs] / [kg]	1.21 / 0.55	
Appliance size: width x depth x height [in]	1.5 x 5.5 x 5.9	
Appliance size: width x depth x height [mm]	37 x 140 x 150	
Weight carton with appliance [lbs] / [kg]	1.98 / 0.9	
Carton size: width x depth x height [in]	2.6 x 9.1 x 10.8	
Carton size: width x depth x height [mm]	65 x 230 x 275	
Form factor	Compact, DIN rail	
HARDWARE		
Cooling	Fanless	
ENVIRONMENTAL		
Noise emission [db/A]	N/A	
Operating temperature [°F] / [°C]	+30 to +105 / 0 to +40	
Storage temperature [°F] / [°C]	-5 to +160 / -20 to +70	
Operating humidity (non-condensing)	5% to 95%	

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

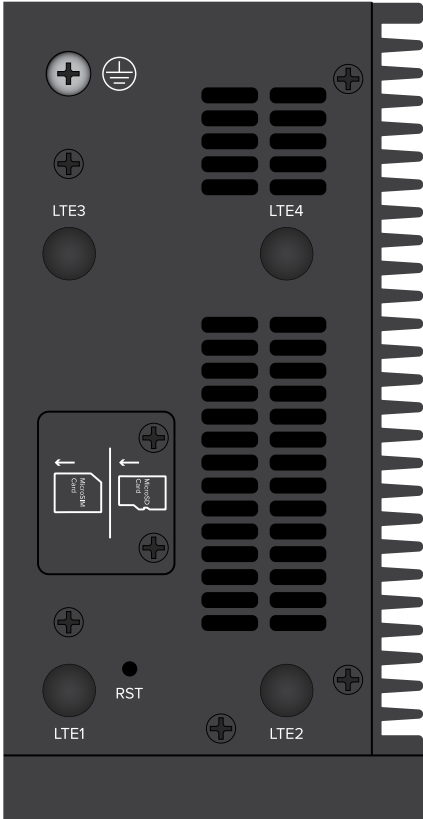
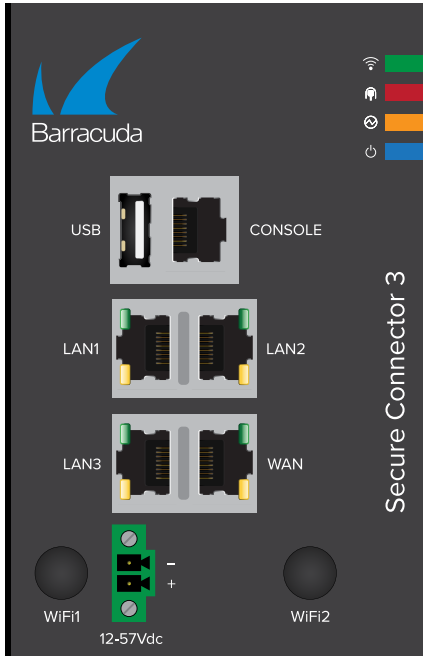
MTBF [SYSTEM]	
MTBF [yrs.] ^[b]	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single, external
Power supply type	External brick
Power type [AC/DC]	AC
Input rating [Volts]	100-240
Input frequency [Hz]	50-60
Max. power draw [W]	40
Max. power draw @ 12V [Amps.]	3.33
Max. heat dissipation [W]	40
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
USB type A to MicroUSB cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓
2x WiFi antenna	✓
2x Cellular antenna with 1.5m cable	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.
- b MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 30



INTERFACES		
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x	
LAN copper NICs (LAN switch; 1 GbE)	3x	
USB 2.0	1	
Serial console	RJ45	
WiFi (access point / client mode)	N/A	
SUPPORTED CELLULAR NETWORKS		
4G / LTE	N/A	
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]		
Firewall throughput (UDP) [Mbps]	300	
WiFi AP mode throughput (UDP) [Mbps]	N/A	
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30	
MEMORY		
RAM [GB]	2	
MASS STORAGE		
Size On-board [GB]	8	
Size Micro SD [GB]	16	
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 39)		
Weight appliance [lbs] / [kg]	2.42 / 1.1	
Appliance size: width x depth x height [in]	3.03 x 4.72 x 5.91	
Appliance size: width x depth x height [mm]	77 x 120 x 150	
Weight carton with appliance [lbs] / [kg]	t.b.a. / t.b.a.	
Carton size: width x depth x height [in]	t.b.a.	
Carton size: width x depth x height [mm]	t.b.a.	
Form factor	Rugged, DIN rail	
HARDWARE		
Cooling	Fanless	
ENVIRONMENTAL		
Noise emission [db/A]	N/A	
Operating temperature [°F] / [°C]	-4 to +158 / -20 to +70	
Storage temperature [°F] / [°C]	-4 to +158 / -20 to +70	
Operating humidity (non-condensing)	5% to 95%	

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

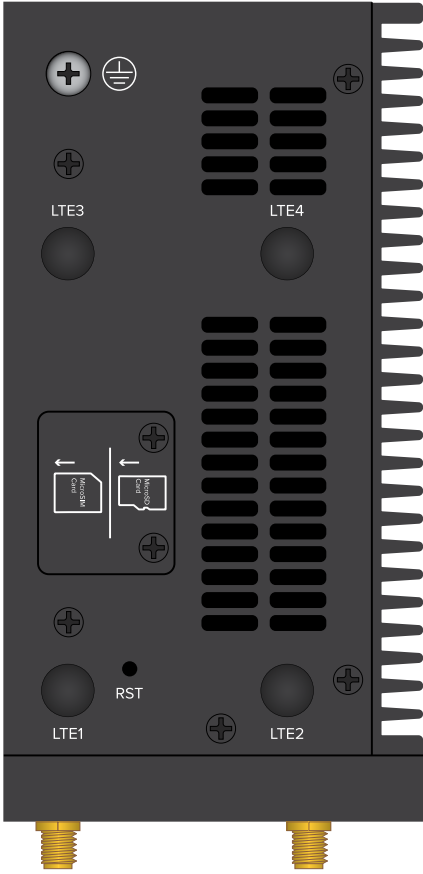
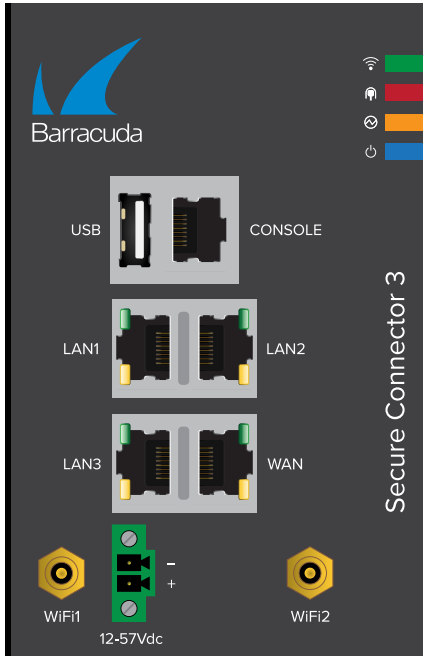
MTBF [SYSTEM]	
MTBF [yrs.] ^{lb}	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single, external
Power supply type	External brick
Power type [AC/DC]	DC
Input rating [Volts]	12-36
Max. power draw [W]	60
Max. power draw @ 12V [Amps.]	2.5
Max. heat dissipation [W]	60
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
Shock and vibration resistance	IEC 60068
	IEC 60950
	IEC 61000
	ISTA 2A
Protection classification	IP20 standard
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a
- Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.
- b
- MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 31



INTERFACES		
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x	
LAN copper NICs (LAN switch; 1 GbE)	3x	
USB 2.0	1	
Serial console	RJ45	
WiFi (access point / client mode)	✓	
SUPPORTED CELLULAR NETWORKS		
4G / LTE	N/A	
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]		
Firewall throughput (UDP) [Mbps]	300	
WiFi AP mode throughput (UDP) [Mbps]	80	
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30	
MEMORY		
RAM [GB]	2	
MASS STORAGE		
Size On-board [GB]	8	
Size Micro SD [GB]	16	
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 40)		
Weight appliance [lbs] / [kg]	2.42 / 1.1	
Appliance size: width x depth x height [in]	3.03 x 4.72 x 5.91	
Appliance size: width x depth x height [mm]	77 x 120 x 150	
Weight carton with appliance [lbs] / [kg]	t.b.a. / t.b.a.	
Carton size: width x depth x height [in]	t.b.a.	
Carton size: width x depth x height [mm]	t.b.a.	
Form factor	Rugged, DIN rail	
HARDWARE		
Cooling	Fanless	
ENVIRONMENTAL		
Noise emission [db/A]	N/A	
Operating temperature [°F] / [°C]	-4 to +158 / -20 to +70	
Storage temperature [°F] / [°C]	-4 to +158 / -20 to +70	
Operating humidity (non-condensing)	5% to 95%	

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

MTBF [SYSTEM]	
MTBF [yrs.] ^[b]	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single, external
Power supply type	External brick
Power type [AC/DC]	DC
Input rating [Volts]	12-36
Max. power draw [W]	60
Max. power draw @ 12V [Amps.]	2.5
Max. heat dissipation [W]	60
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
Shock and vibration resistance	IEC 60068 IEC 60950 IEC 61000 ISTA 2A
Protection classification	IP20 standard
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓
2x WiFi antenna	✓
4x Cellular antenna with 1.5m cable	✓

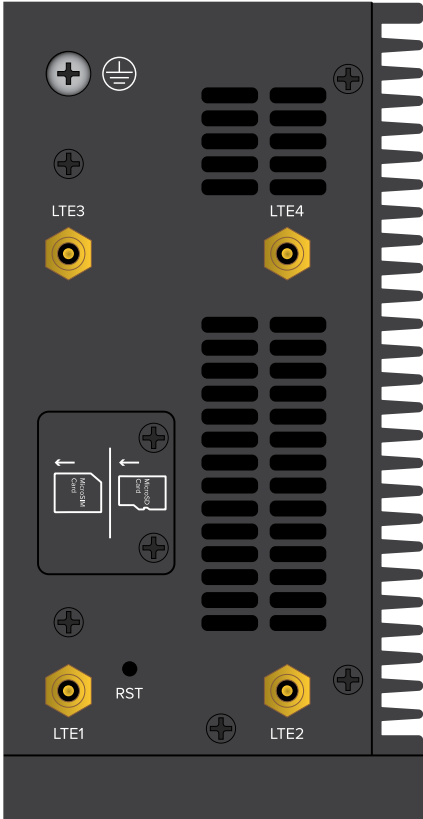
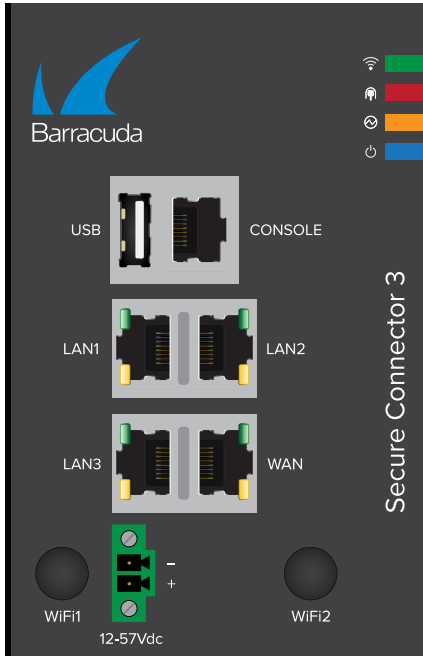
All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

a Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.

b MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 34



INTERFACES		
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x	
LAN copper NICs (LAN switch; 1 GbE)	3x	
USB 2.0	1	
Serial console	RJ45	
WiFi (access point / client mode)	N/A	
SUPPORTED CELLULAR NETWORKS		
4G / LTE	✓	
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]		
Firewall throughput (UDP) [Mbps]	300	
WiFi AP mode throughput (UDP) [Mbps]	N/A	
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30	
MEMORY		
RAM [GB]	2	
MASS STORAGE		
Size On-board [GB]	8	
Size Micro SD [GB]	16	
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 41)		
Weight appliance [lbs] / [kg]	2.42 / 1.1	
Appliance size: width x depth x height [in]	3.03 x 4.72 x 5.91	
Appliance size: width x depth x height [mm]	77 x 120 x 150	
Weight carton with appliance [lbs] / [kg]	t.b.a. / t.b.a.	
Carton size: width x depth x height [in]	t.b.a.	
Carton size: width x depth x height [mm]	t.b.a.	
Form factor	Rugged, DIN rail	
HARDWARE		
Cooling	Fanless	
ENVIRONMENTAL		
Noise emission [db/A]	N/A	
Operating temperature [°F] / [°C]	-4 to +158 / -20 to +70	
Storage temperature [°F] / [°C]	-4 to +158 / -20 to +70	
Operating humidity (non-condensing)	5% to 95%	

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

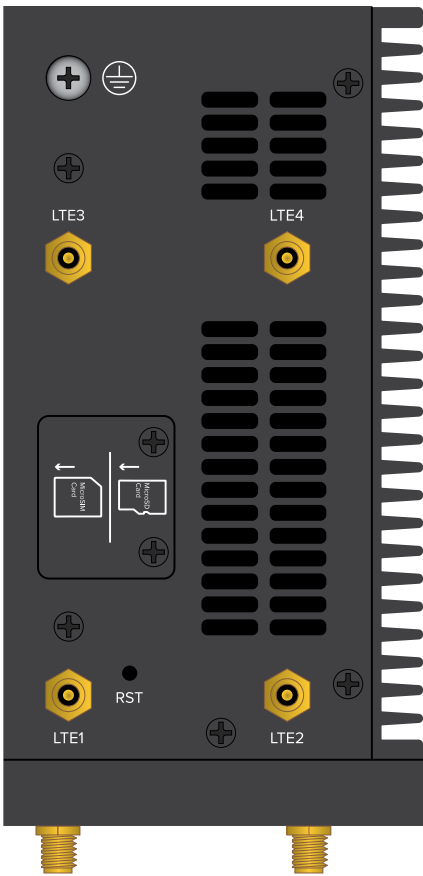
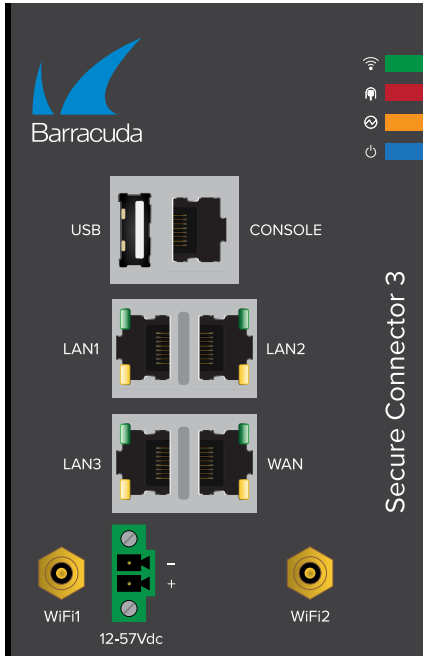
MTBF [SYSTEM]	
MTBF [yrs.] ^[b]	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single, external
Power supply type	External brick
Power type [AC/DC]	DC
Input rating [Volts]	12-36
Max. power draw [W]	60
Max. power draw @ 12V [Amps.]	2.5
Max. heat dissipation [W]	60
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
Shock and vibration resistance	IEC 60068 IEC 60950 IEC 61000 ISTA 2A
Protection classification	IP20 standard
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓
4x Cellular antenna with 1.5m cable	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.
- b MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 35



INTERFACES		
WAN copper ethernet NICs (PoE-recipient; 1 GbE)	1x	
LAN copper NICs (LAN switch; 1 GbE)	3x	
USB 2.0	1	
Serial console	RJ45	
WiFi (access point / client mode)	✓	
SUPPORTED CELLULAR NETWORKS		
4G / LTE	✓	
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]		
Firewall throughput (UDP) [Mbps]	300	
WiFi AP mode throughput (UDP) [Mbps]	80	
Site performance (up to) (AES-128, SHA) [Mbps] ^[a]	30	
MEMORY		
RAM [GB]	2	
MASS STORAGE		
Size On-board [GB]	8	
Size Micro SD [GB]	16	
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 42)		
Weight appliance [lbs] / [kg]	2.42 / 1.1	
Appliance size: width x depth x height [in]	3.03 x 4.72 x 5.91	
Appliance size: width x depth x height [mm]	77 x 120 x 150	
Weight carton with appliance [lbs] / [kg]	t.b.a. / t.b.a.	
Carton size: width x depth x height [in]	t.b.a.	
Carton size: width x depth x height [mm]	t.b.a.	
Form factor	Rugged, DIN rail	
HARDWARE		
Cooling	Fanless	
ENVIRONMENTAL		
Noise emission [db/A]	N/A	
Operating temperature [°F] / [°C]	-4 to +158 / -20 to +70	
Storage temperature [°F] / [°C]	-4 to +158 / -20 to +70	
Operating humidity (non-condensing)	5% to 95%	

This appliance is PoE-recipient compatible and, thus, has no external power brick included. However, an external power brick can be ordered as an option.

MTBF [SYSTEM]	
MTBF [yrs.] ^[b]	> 5
POWER & EFFICIENCY	
AuxDC in voltage range (2-pin terminal block MC420 3.5mm) [V]	12 - 57
WAN Port PoE Voltage range [V]	37 - 54
Compatible PoE provider (PSE)	IEEE 802.3at (Type 2) PD
POWER SUPPLY (OPTIONAL)	
Power supply	Single, external
Power supply type	External brick
Power type [AC/DC]	DC
Input rating [Volts]	12-36
Max. power draw [W]	60
Max. power draw @ 12V [Amps.]	2.5
Max. heat dissipation [W]	60
Max. heat dissipation [BTU]	205
Energy efficiency [average]	> 83%
CERTIFICATIONS & COMPLIANCE (ALSO SEE PAGE 50 FF)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
Shock and vibration resistance	IEC 60068
	IEC 60950
	IEC 61000
	ISTA 2A
Protection classification	IP20 standard
PACKAGING CONTENT	
Appliance	✓
Straight network cable	✓
External power brick & cables	Optional
Quick start guide	✓
1x DIN rail bracket	✓
1x 2-pin power connector	✓
2x WiFi antenna	✓
4x Cellular antenna with 1.5m cable	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

a

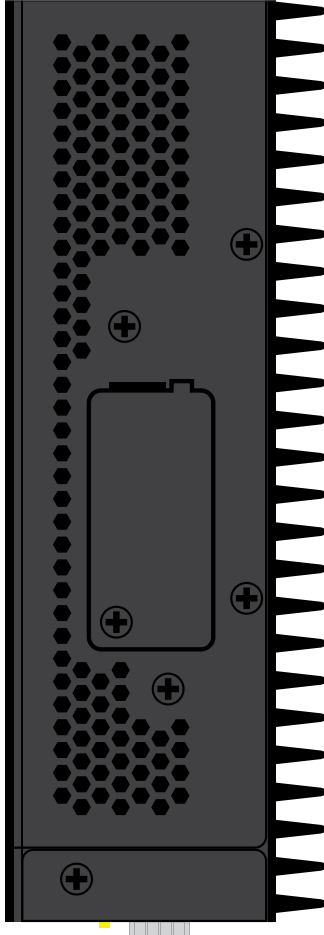
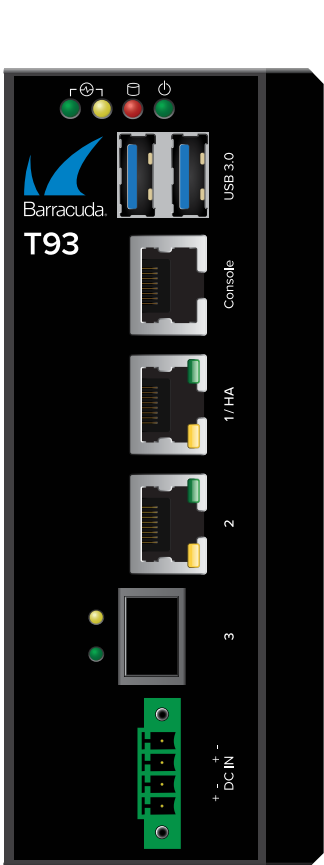
Site performance is based on 1415 Byte UDP packets, bidirectional using BreakingPoint traffic generator.

b

MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

CloudGen WAN T93A



INTERFACES	
Copper ethernet NICs (1 GbE RJ45)	2x
SFP fiber NICs (1 GbE)	1x
USB 3.0	2x
ESD protection	15KV
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]	
Site performance (up to) [Mbps]	200
Concurrent sessions	80,000
New sessions/s	8,000
Max. number of concurrent users	50-100
MEMORY	
RAM [GB]	4
MASS STORAGE	
Type	SSD
Size [[GB] or better)	100
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 43)	
Weight appliance [lbs] / [kg]	2.6 / 1.2
Appliance size: width x depth x height [in]	2.04 x 5.9 x 5.11
Appliance size: width x depth x height [mm]	52 x 150 x 130
Weight carton with appliance [lbs] / [kg]	4.8 / 2.2
Carton size: width x depth x height [in]	10 x 10 x 12
Carton size: width x depth x height [mm]	254 x 254 x 305
Form factor	Compact, DIN rail mount
HARDWARE	
Display	-
Cooling	Fanless
ENVIRONMENTAL	
Noise emission [db/A]	n/a
Operating temperature [°F] / [°C]	-40 to +167 / -40 to +75
Storage temperature [°F] / [°C]	-40 to +185 / -40 to +85
Operating humidity (non-condensing)	5% to 95%
Magnetic isolation protection	1.5KV built-in

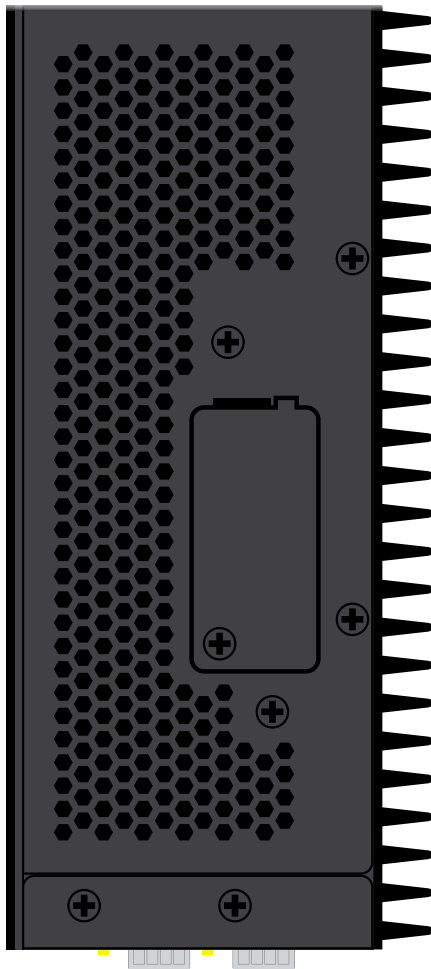
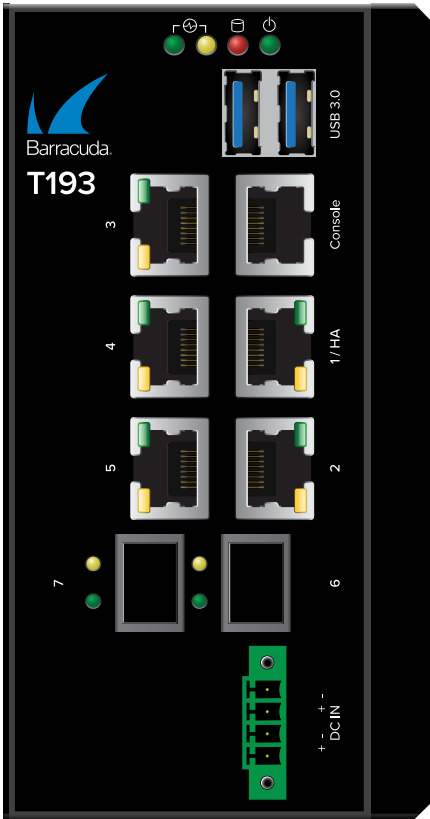
MTBF [SYSTEM]	
MTBF [yrs.] ^[a]	> 9
POWER AND EFFICIENCY	
Power supply	Single
Power supply type	Phoenix 4-pin with lock
Power type [AC/DC]	DC
Input ratings [Volts]	12-36
Max. power draw [W]	60
Max. power draw @ 24V [Amps]	2.5
Max. heat dissipation [W]	60
CERTIFICATIONS AND COMPLIANCE (ALSO SEE PAGE 50)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
Shock and vibration resistance	IEC 60068
	IEC 60950
	IEC 61000
	ISTA 2A
Protection classification	IP20
PACKAGING CONTENT	
Appliance	✓
DIN rail mount bracket	✓
Quick start guide	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

Errors and omissions excepted. Specifications subject to change without notice.

CloudGen WAN T193A



INTERFACES	
Copper ethernet NICs (1 GbE RJ45)	5x
SFP fiber NICs (1 GbE)	2x
USB 3.0	2x
ESD protection	15KV
PERFORMANCE [AS OF FIRMWARE RELEASE 8.3.X]	
Site performance (up to)[Mbps]	240
Concurrent sessions	250,000
New sessions/s	12,000
Max. number of concurrent users	150-300
MEMORY	
RAM [GB]	4
MASS STORAGE	
Type	SSD
Size ([GB] or better)	100
SIZE, WEIGHT, DIMENSIONS (ALSO SEE PAGE 44)	
Weight appliance [lbs] / [kg]	3.1 / 1.4
Appliance size: width x depth x height [in]	2.67 x 5.9 x 5.11
Appliance size: width x depth x height [mm]	68 x 150 x 130
Weight carton with appliance [lbs] / [kg]	4.8 / 2.33
Carton size: width x depth x height [in]	10 x 10 x 12
Carton size: width x depth x height [mm]	254 x 254 x 305
Form factor	Compact, DIN rail mount
HARDWARE	
Display	-
Cooling	Fanless
ENVIRONMENTAL	
Noise emission [db/A]	n/a
Operating temperature [°F] / [°C]	-40 to +167 / -40 to +75
Storage temperature [°F] / [°C]	-40 to +185 / -40 to +85
Operating humidity (non-condensing)	5% to 95%
Magnetic isolation protection	1.5KV built-in

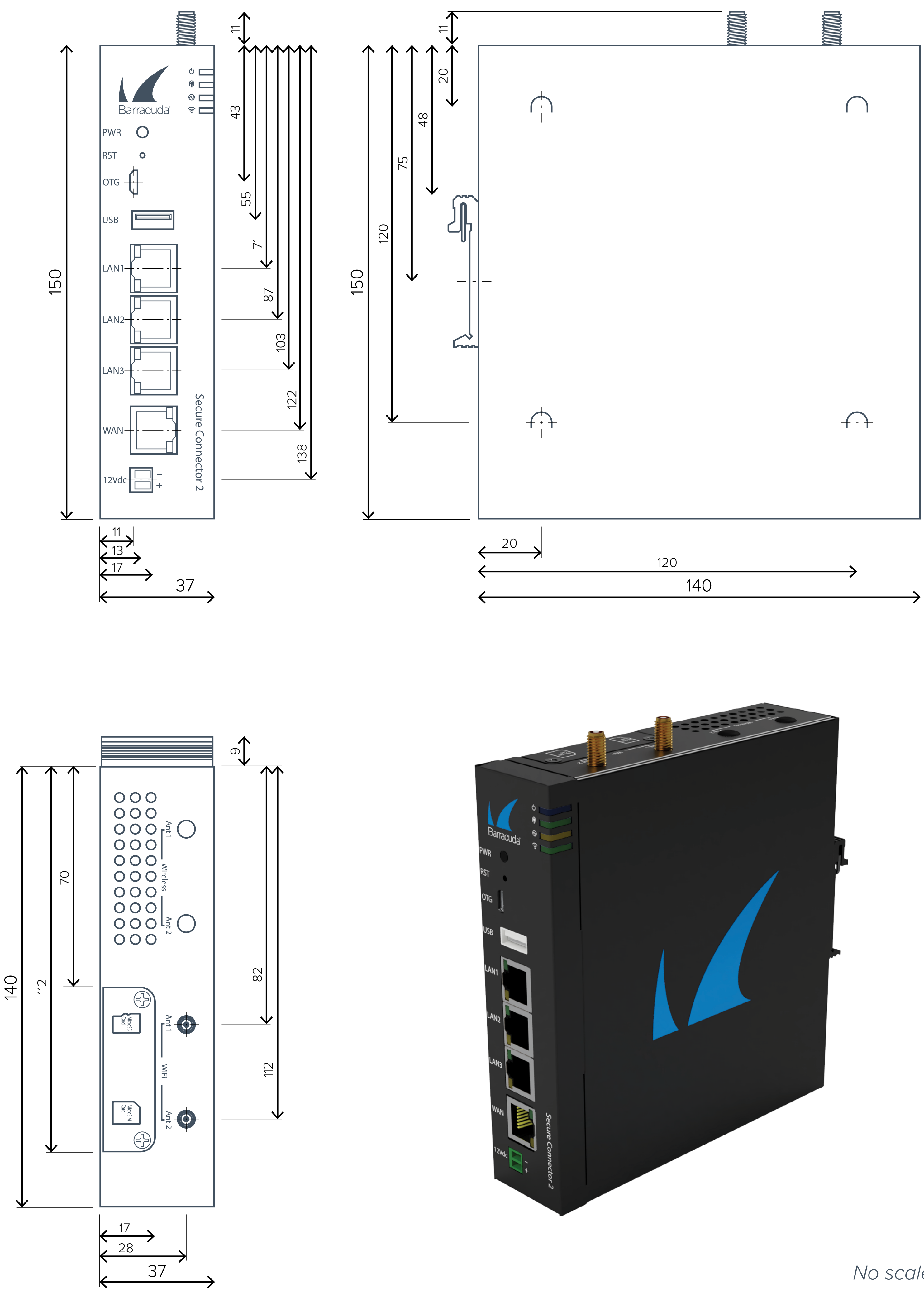
MTBF [SYSTEM]	
MTBF [yrs.] ^[a]	> 9
POWER AND EFFICIENCY	
Power supply	Single
Power supply type	Phoenix 4-pin with lock
Power type [AC/DC]	DC
Input ratings [Volts]	12-36
Max. power draw [W]	60
Max. power draw @ 24V [Amps]	2.5
Max. heat dissipation [W]	60
CERTIFICATIONS AND COMPLIANCE (ALSO SEE PAGE 50)	
CE emissions	✓
CE electrical safety	✓
FCC emissions	✓
ROHS compliant	✓
Shock and vibration resistance	IEC 60068
	IEC 60950
	IEC 61000
	ISTA 2A
Protection classification	IP20 standard
PACKAGING CONTENT	
Appliance	✓
DIN rail mount bracket	✓
I/O rubber covers	✓
Quick start guide	✓

All performance values are measured under optimized conditions and are to be considered as „up to“ values and may vary depending on system configuration and infrastructure:

- a
- MTBF according to common usage. High load on SSD and extreme environmental conditions might reduce MTBF.

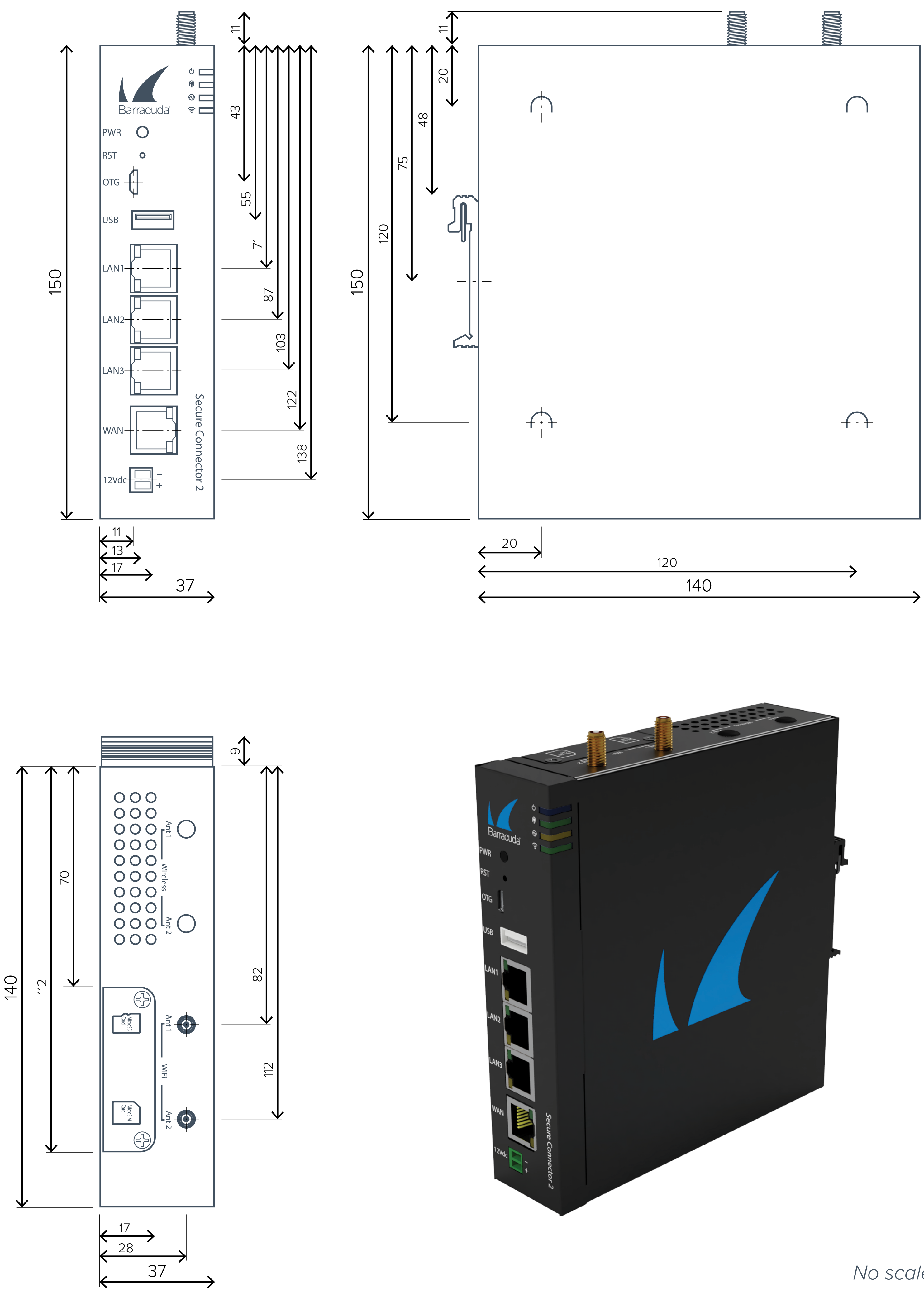
Errors and omissions excepted. Specifications subject to change without notice.

Secure Connector 20



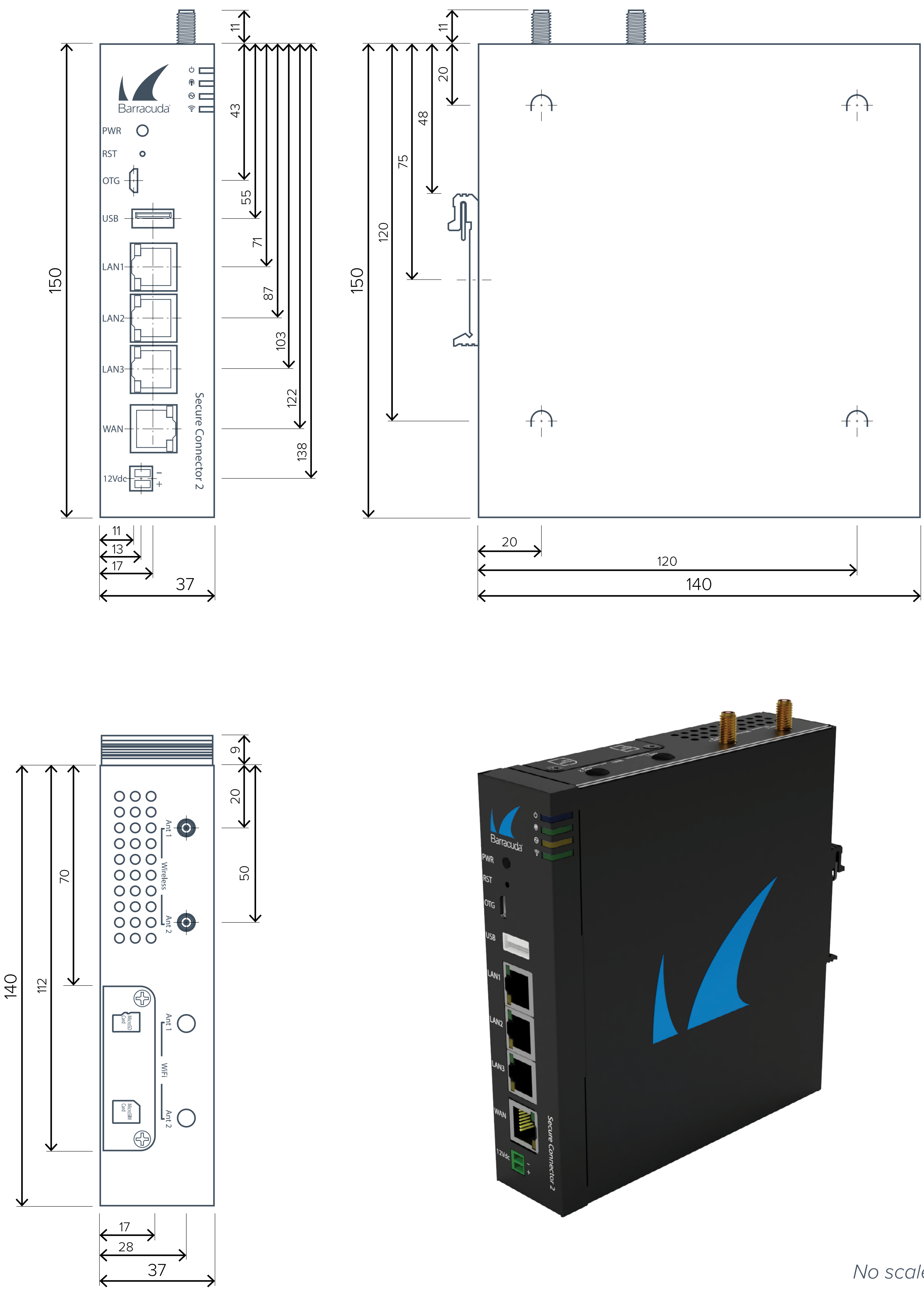
No scale illustration.
 All dimensions in mm.

Secure Connector 21



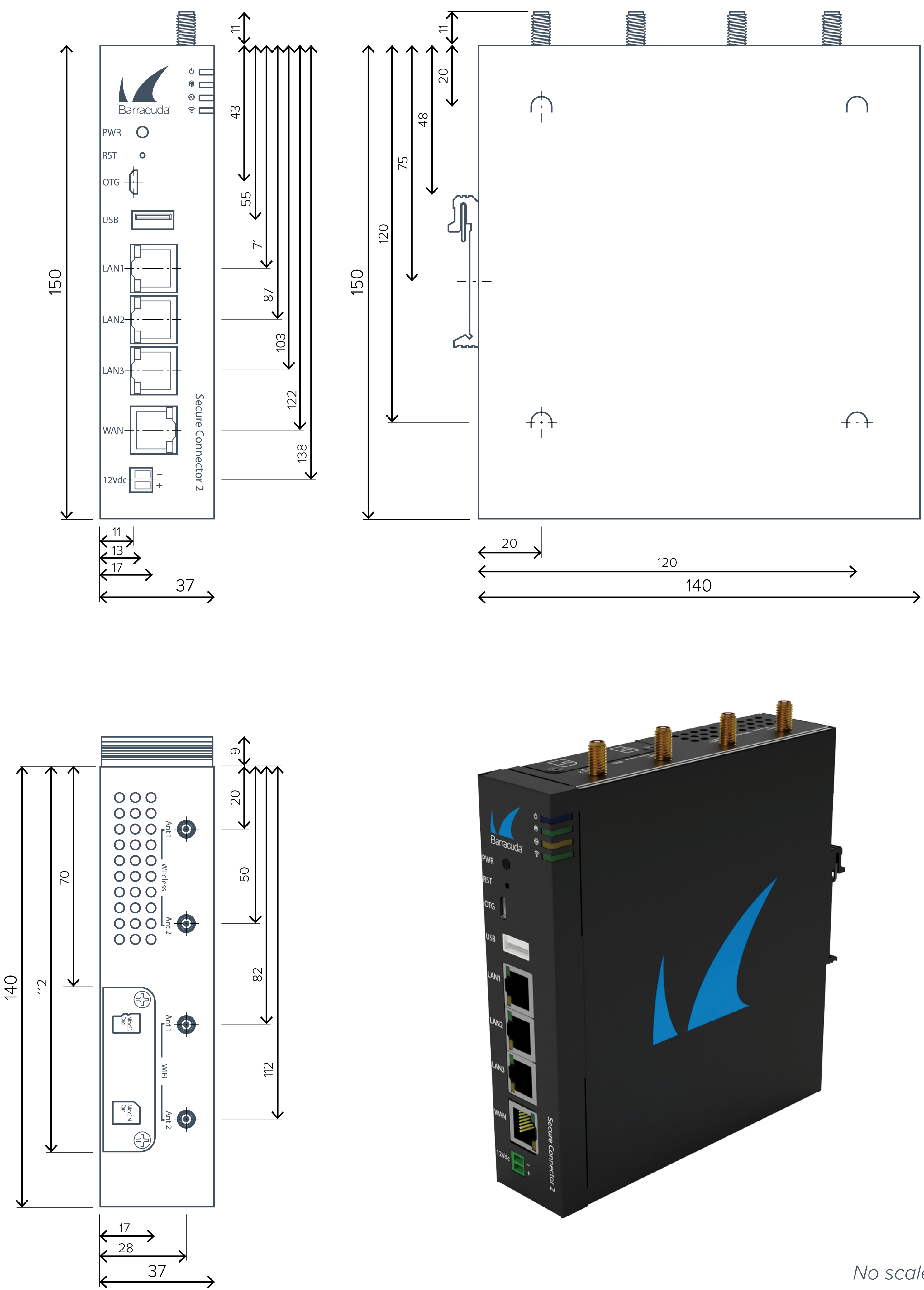
No scale illustration.
 All dimensions in mm.

Secure Connector 24



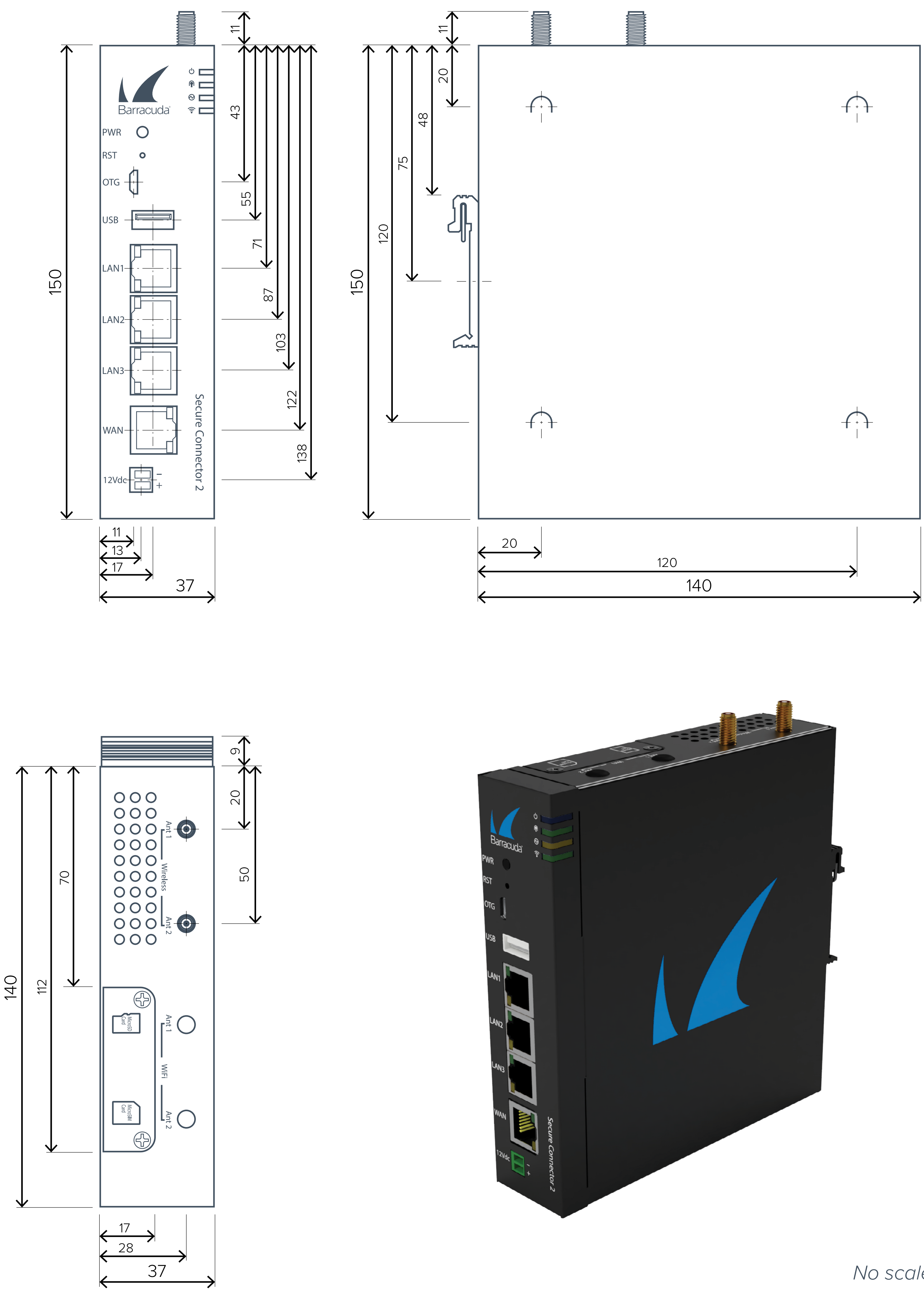
No scale illustration.
 All dimensions in mm.

Secure Connector 25



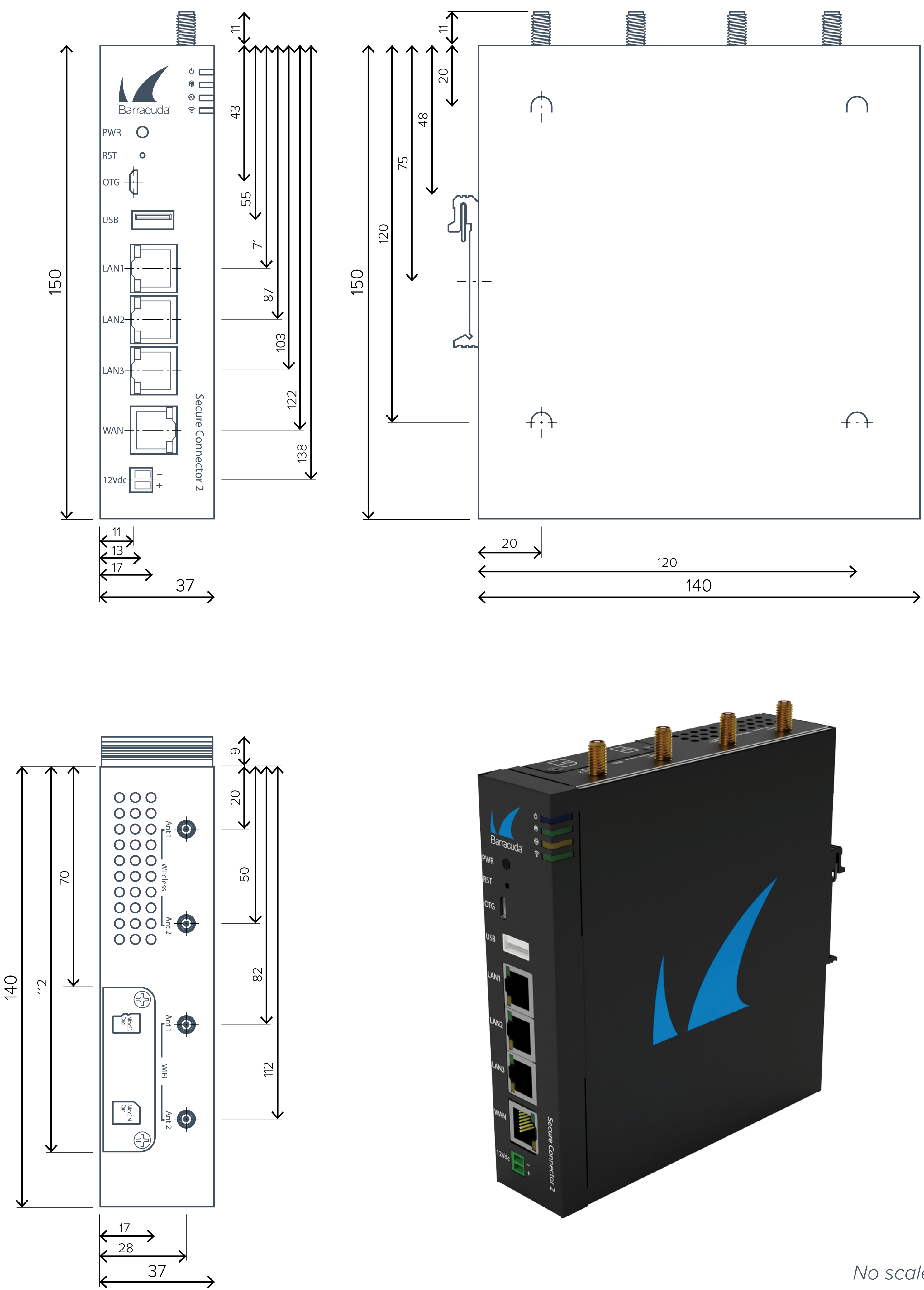
No scale illustration.
 All dimensions in mm.

Secure Connector 26

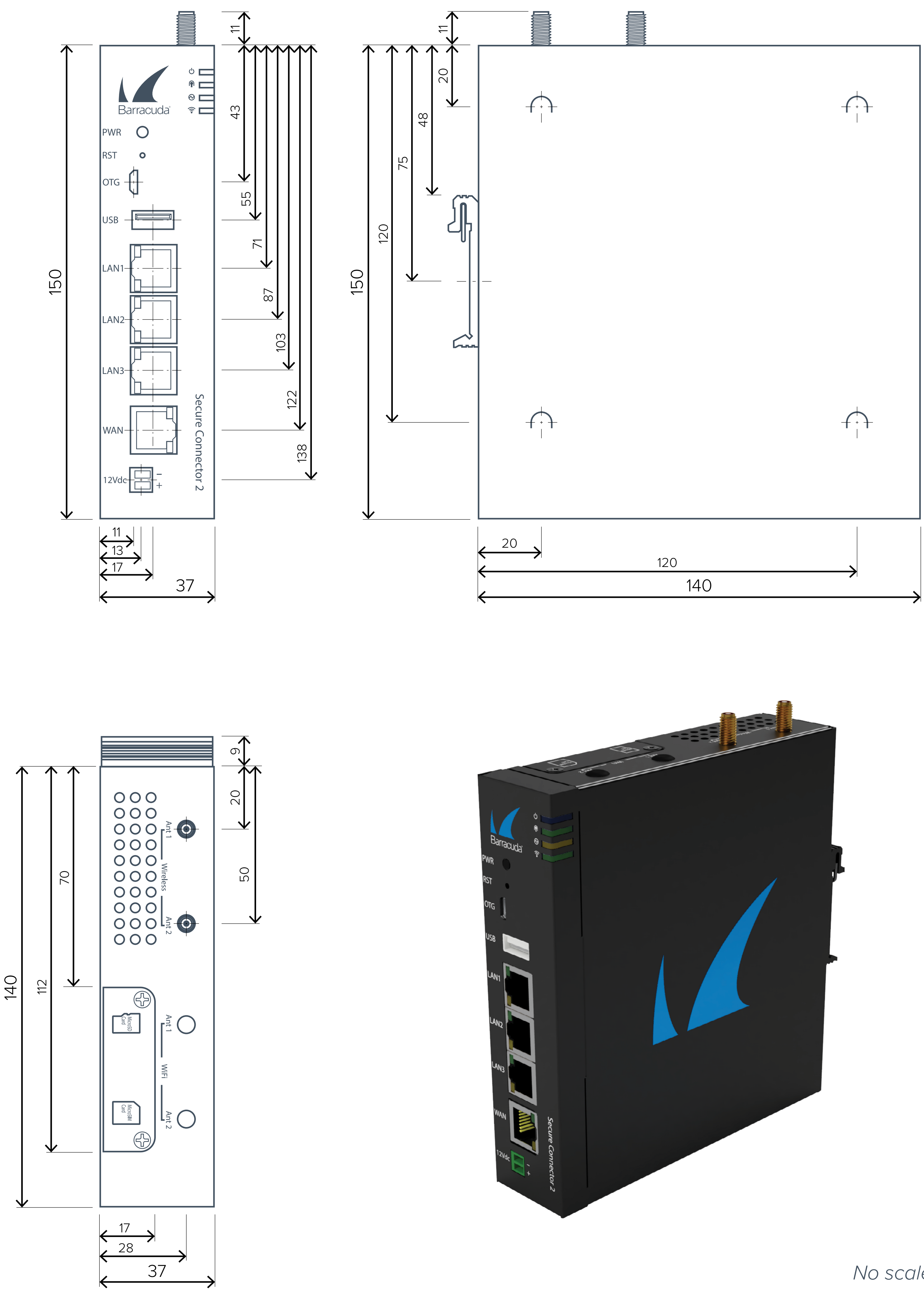


No scale illustration.
 All dimensions in mm.

Secure Connector 27

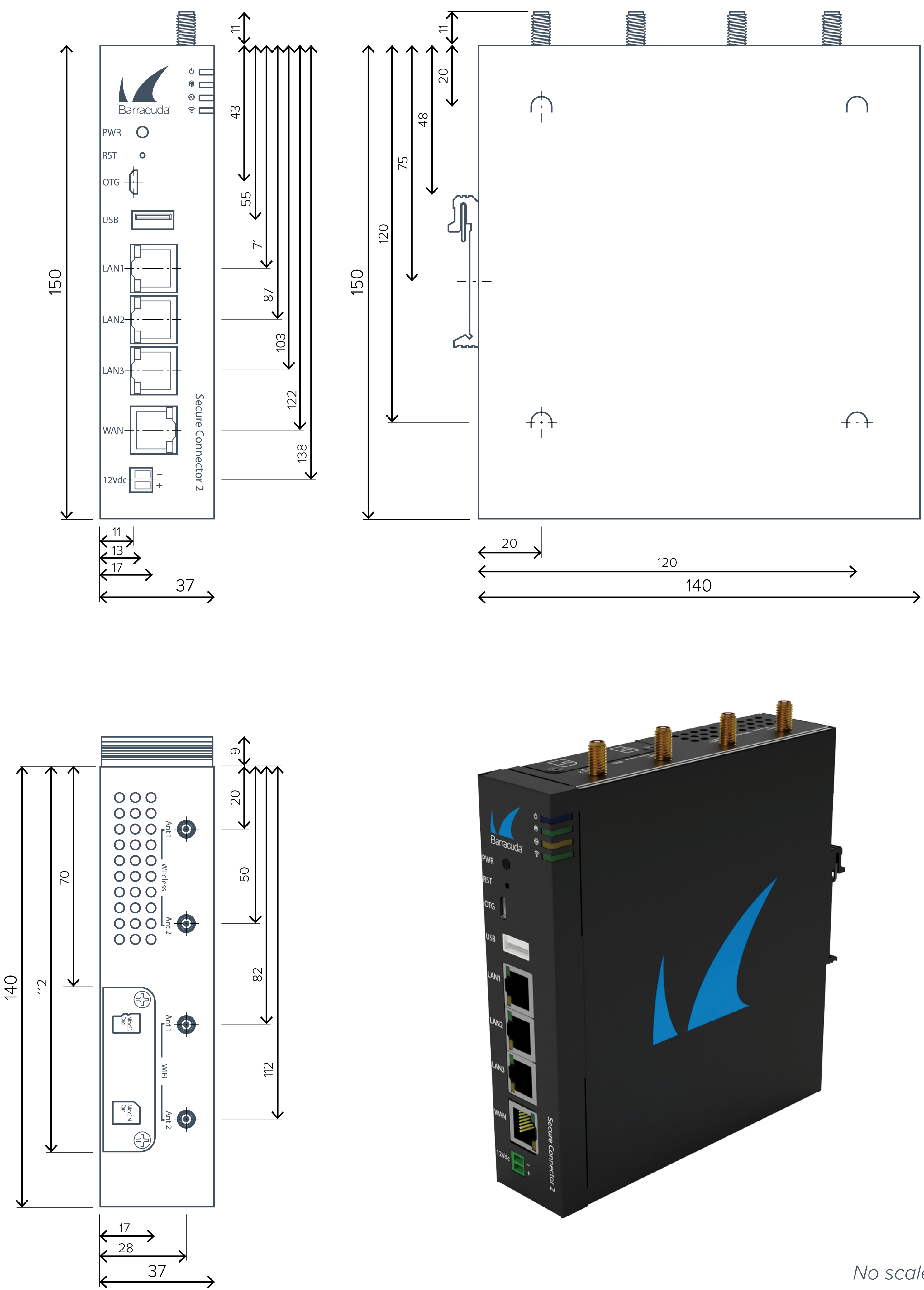


Secure Connector 28



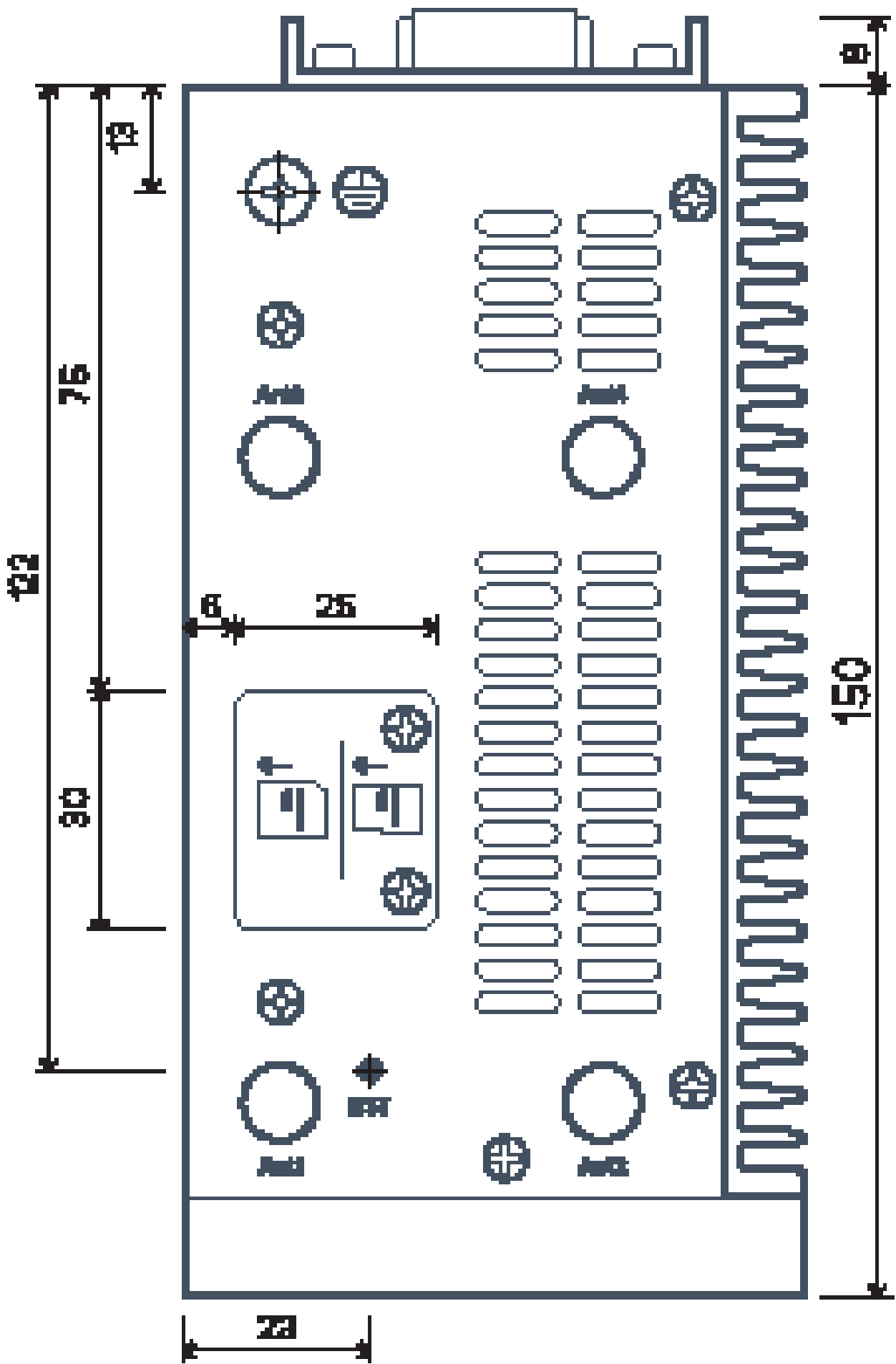
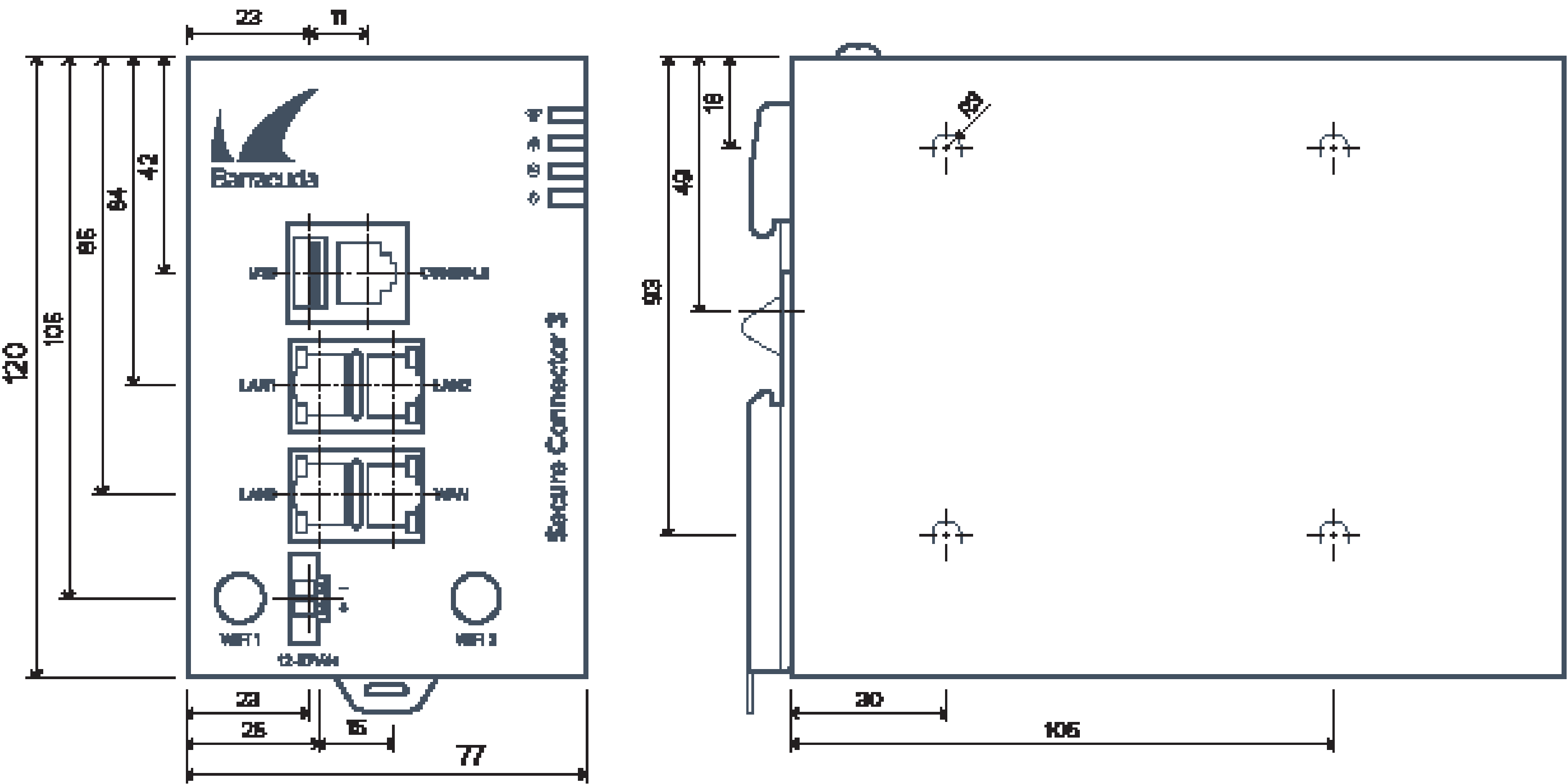
No scale illustration.
 All dimensions in mm.

Secure Connector 29



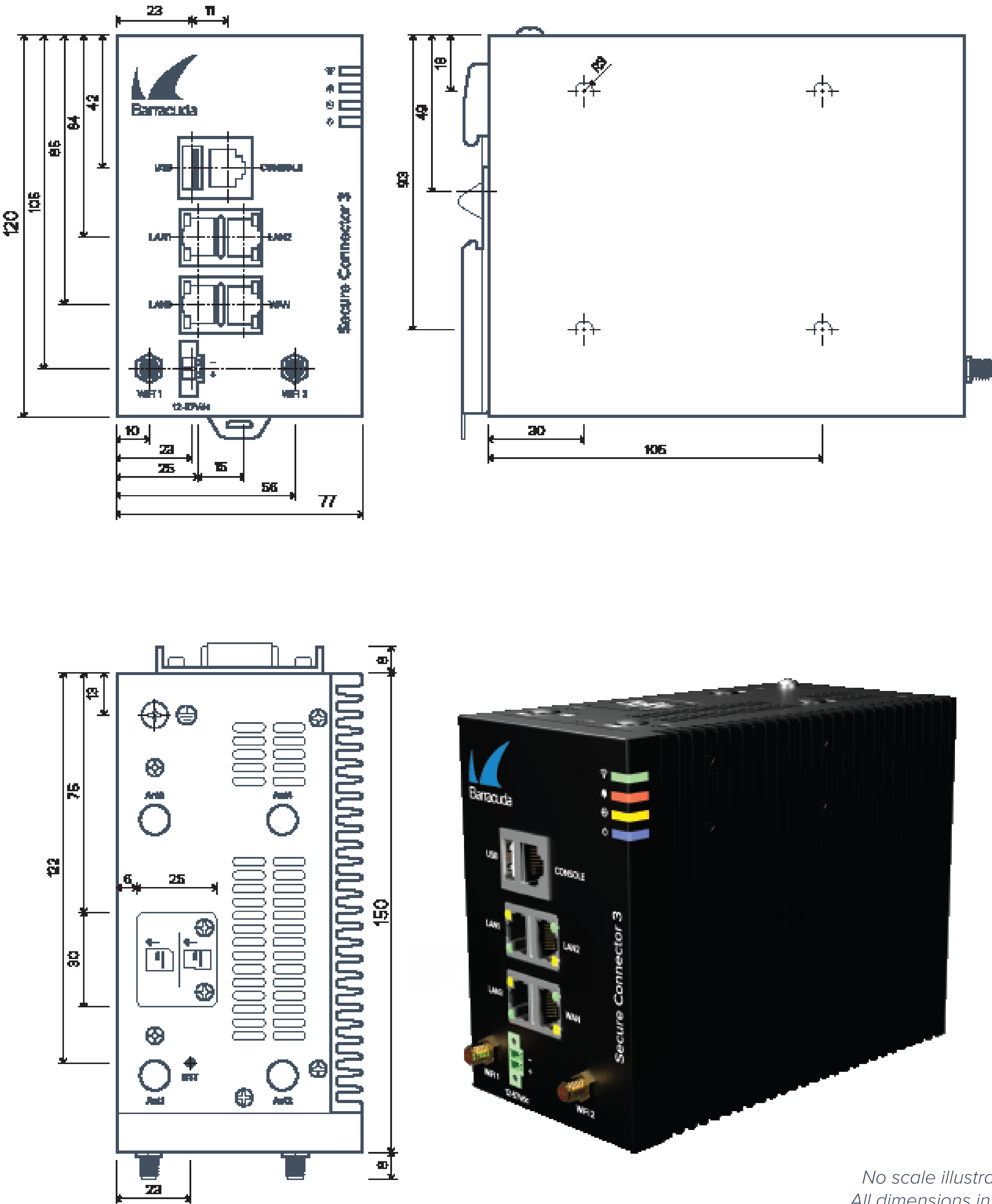
No scale illustration.
 All dimensions in mm.

Secure Connector 30

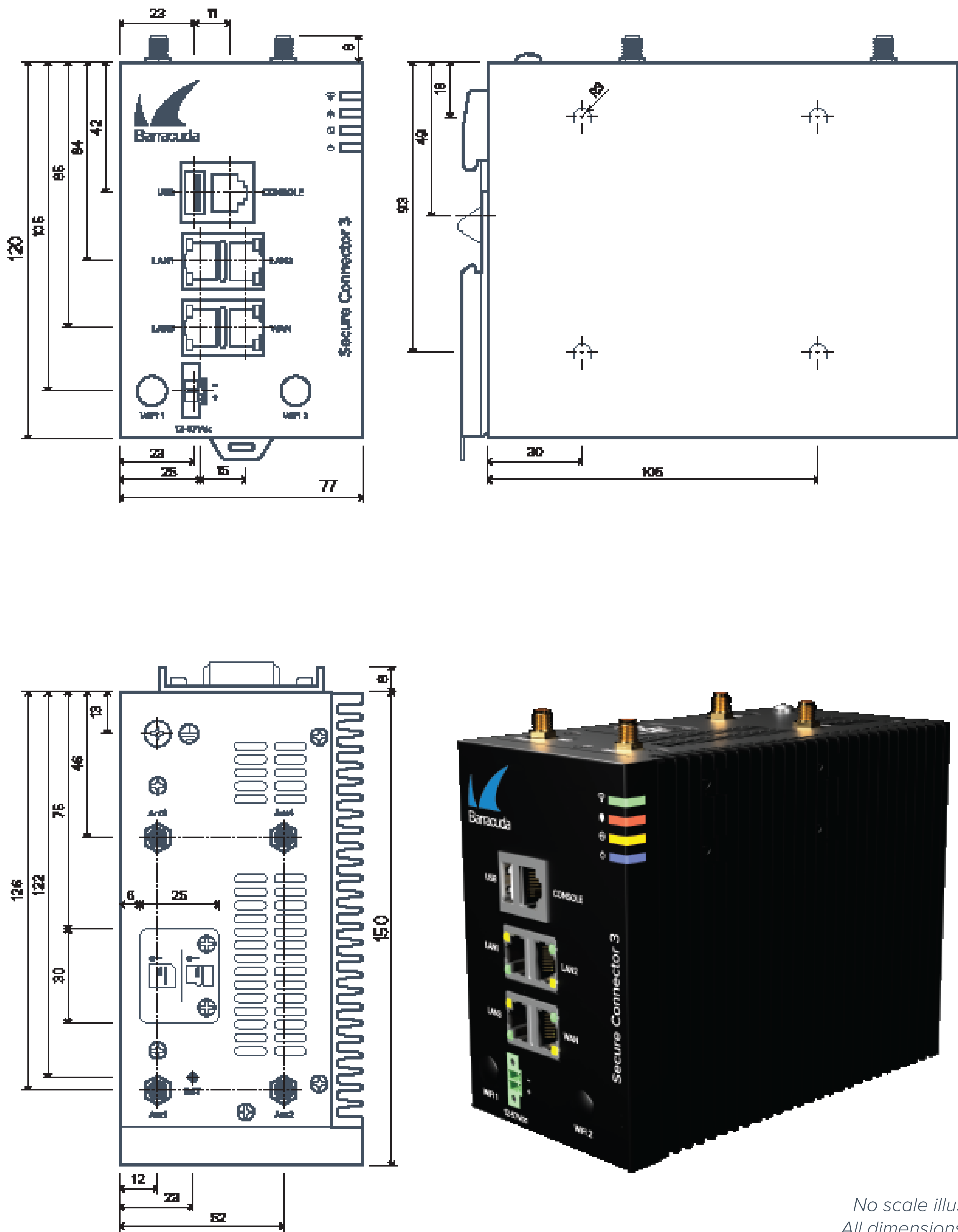


No scale illustration.
 All dimensions in mm.

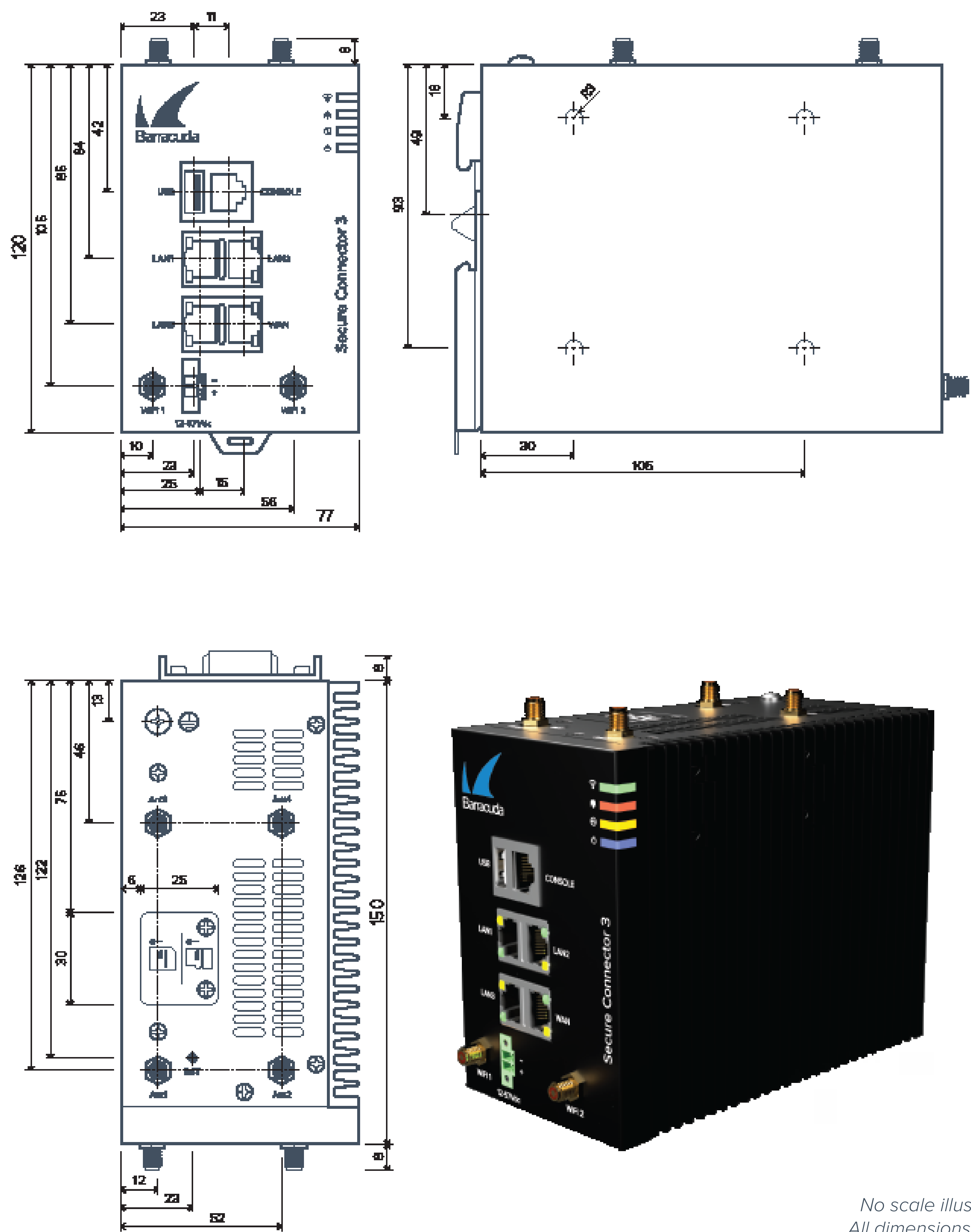
Secure Connector 31



Secure Connector 34

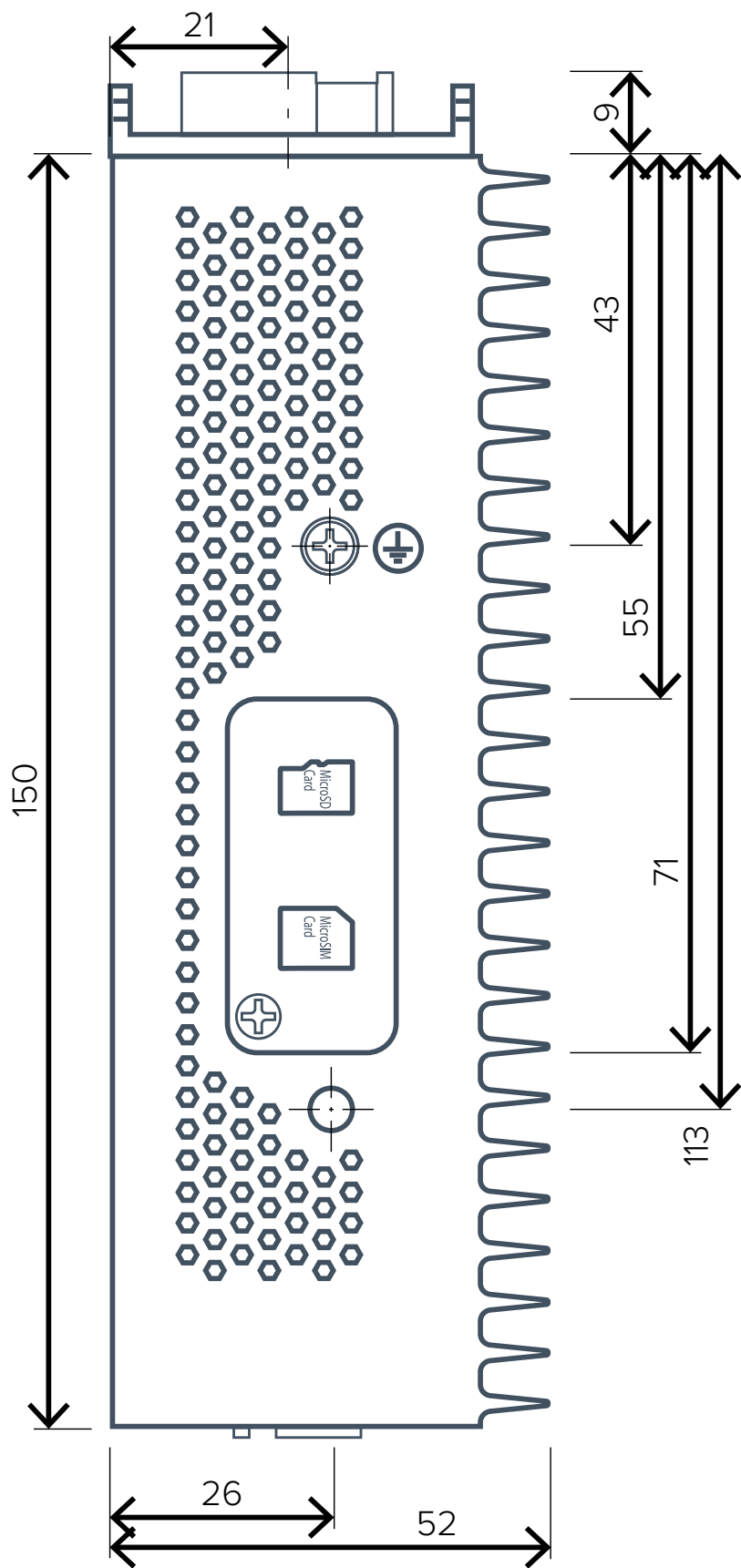
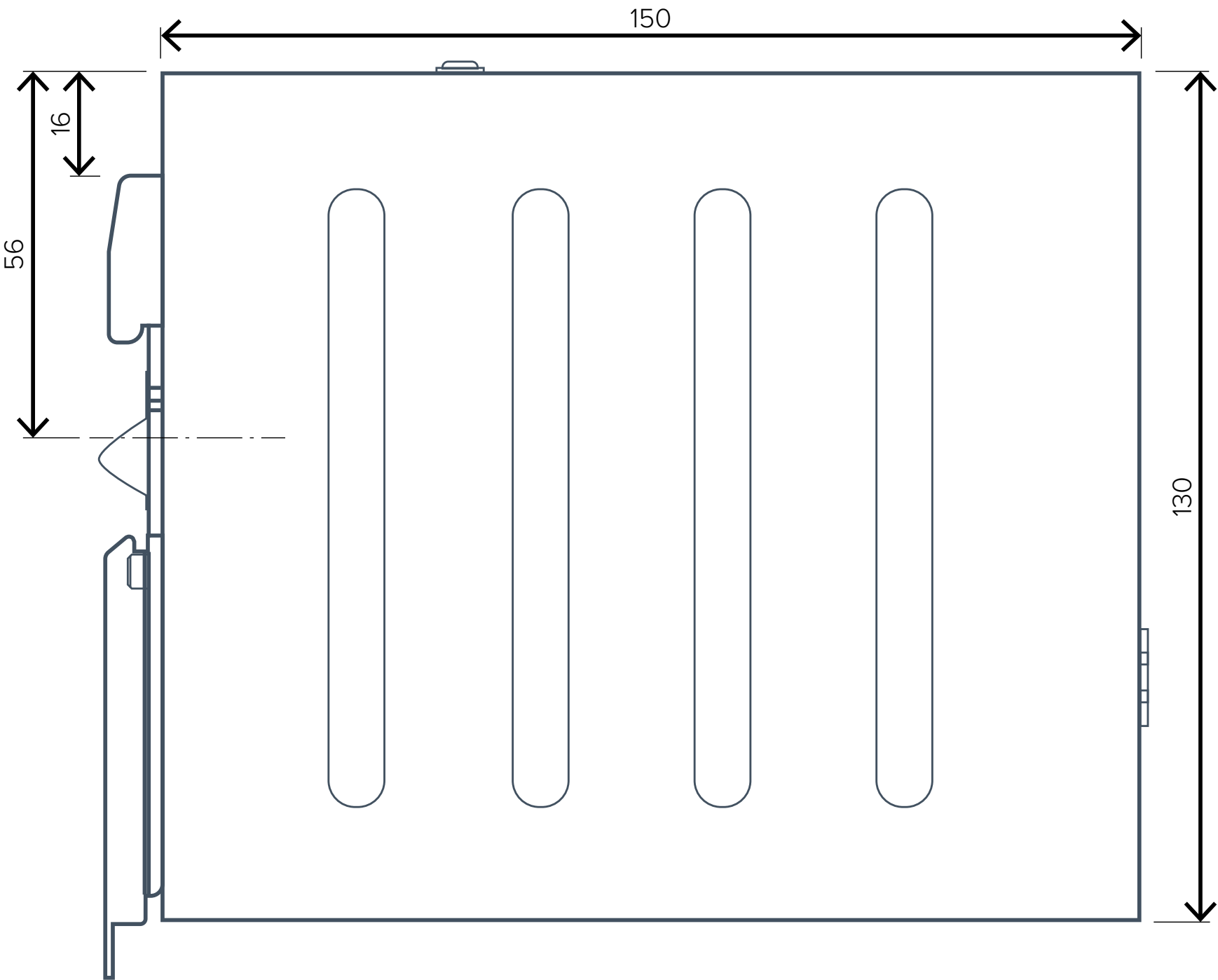
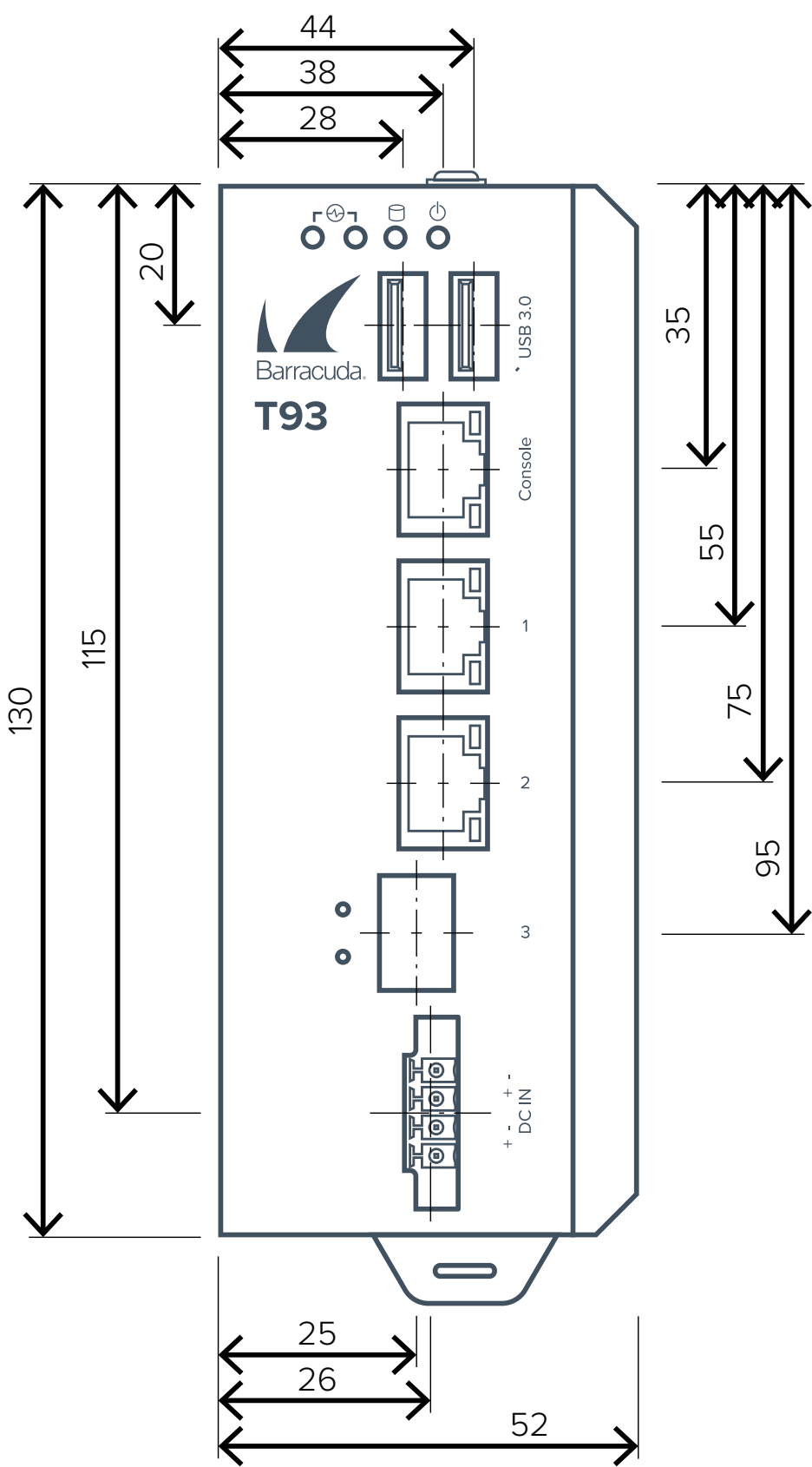


Secure Connector 35



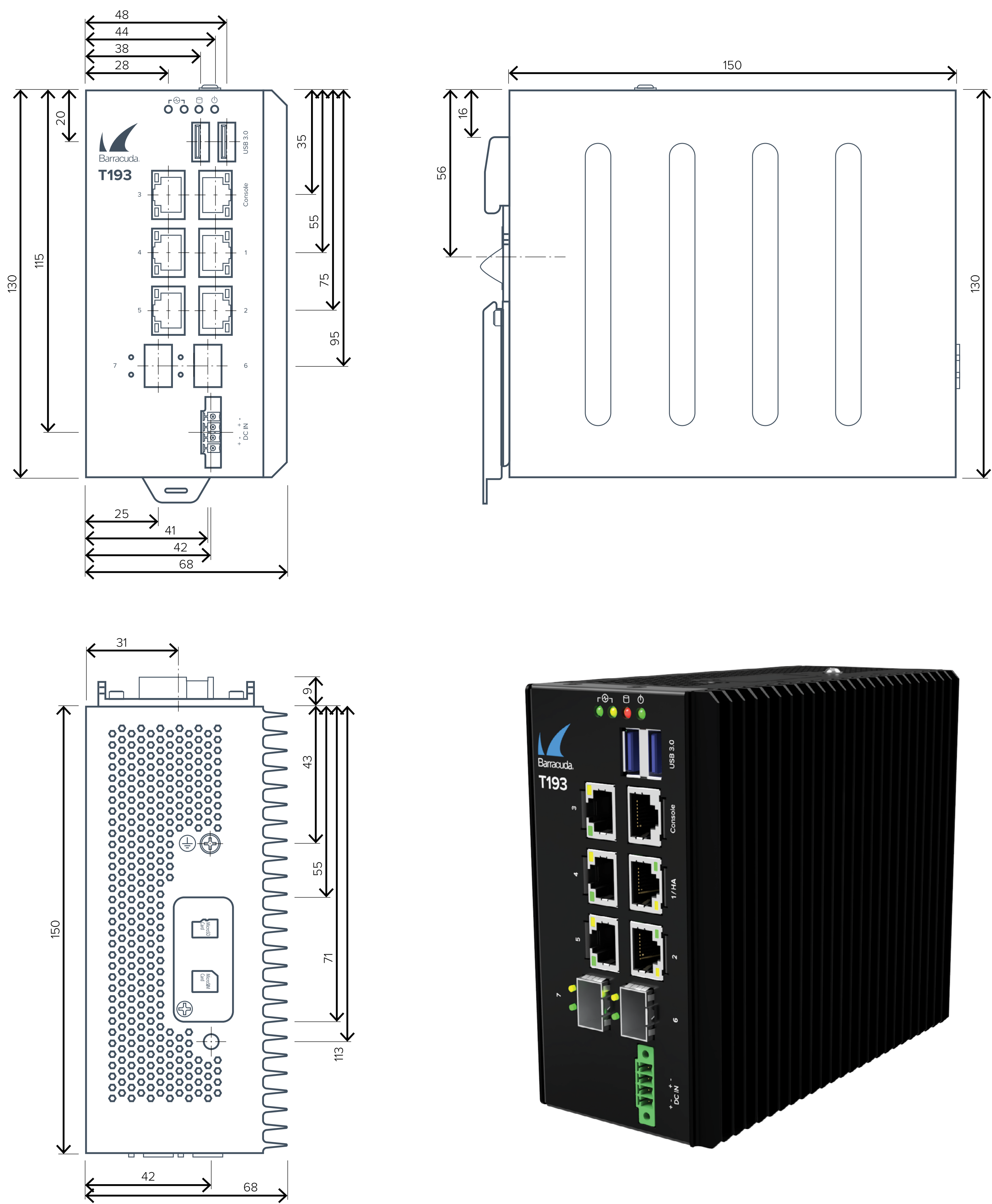
No scale illustration.
 All dimensions in mm.

CloudGen WAN T93A



No scale illustration.
 All dimensions in mm.

CloudGen WAN T193A



No scale illustration.
All dimensions in mm.

Available subscriptions

	CLOUDGEN WAN SITE DEVICES															CLOUDGEN WAN SERVICE
	HARDWARE										VIRTUAL					
	DESKTOP		1U RACK MOUNT			DIN RAIL COMPATIBLE					VT100	VT500	VT1500	VT3000	VT5000	
	T100	T200	T400	T600	T900	SC2	SC3	T93	T193							
AVAILABLE SOFTWARE/FEATURE SUBSCRIPTIONS																
Energize Updates (EU)	Mandatory															✓

Energize Updates

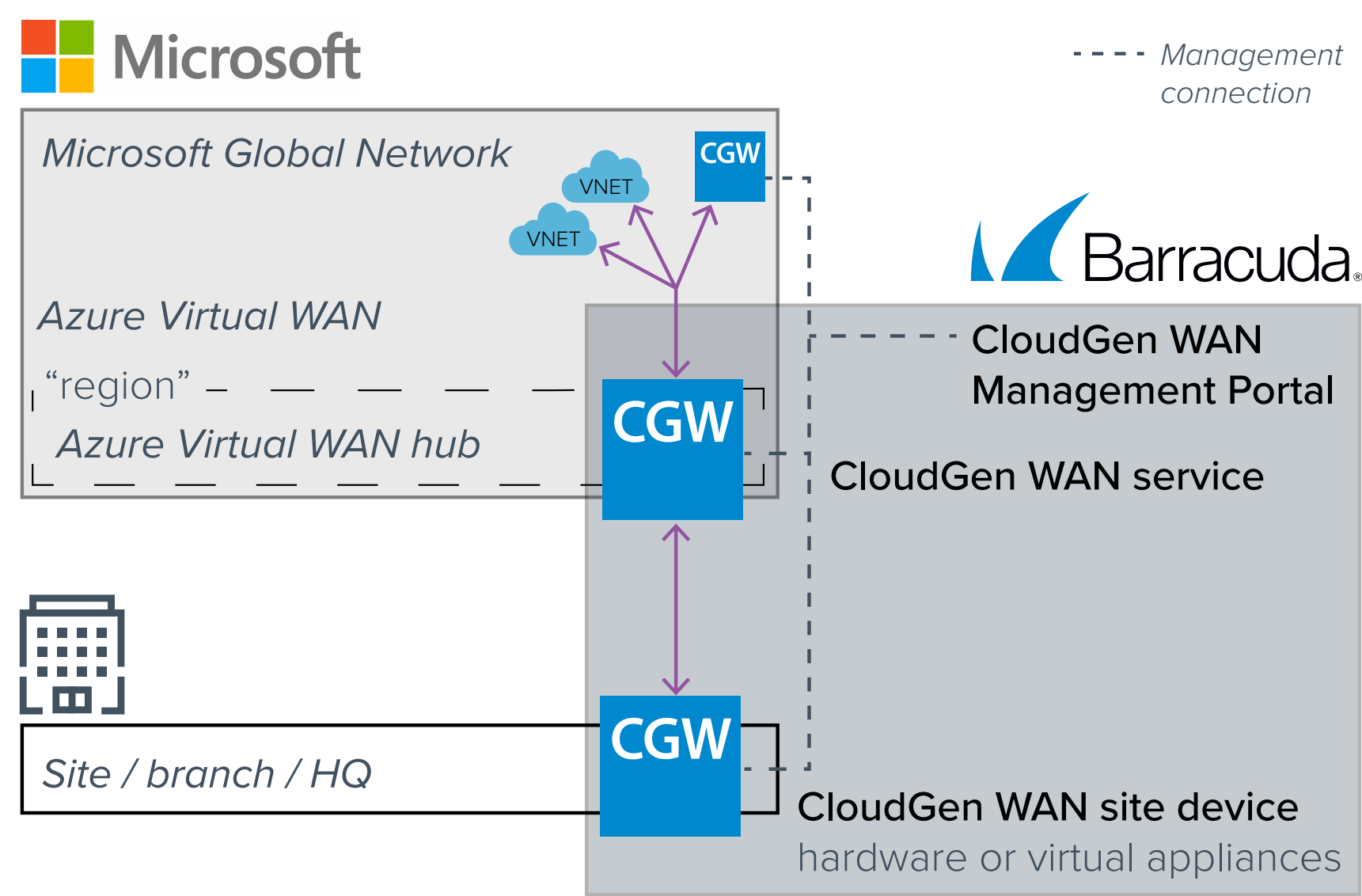
Barracuda Energize Updates help you secure your investment in the ever-changing IT world. Benefit from security updates to patch or repair any security vulnerabilities, keep your Barracuda product up-to-date and fully functional at all times, and get access to our award-winning support.

Energize Updates are mandatory for all CloudGen WAN hardware and virtual models. Available for one month, one year, or SaaS.

Energize Updates includes:

- Enhanced support providing 24x7 technical support via phone, live chat, online portal, and e-mail
- Firmware maintenance including new firmware updates with feature enhancements and bug fixes
- Early Release Firmware program (optional)
- Unlimited number of client-to-site VPN connections
- Security updates to patch/repair any security vulnerabilities
- URL filter based on Barracuda Web Filter online URL categorization in single-pass as well as in proxy mode
- Regular updates for Application Control database
- IPS signature and pattern updates.

Components, licensing, and product codes



As depicted in the reference architecture shown above, CloudGen WAN weaves several components together.

Microsoft components

Barracuda Networks assumes that the customer has an appropriate relation with Microsoft and active services for Microsoft Global Network and Azure Virtual WAN.

Microsoft Azure Virtual WAN (vWAN)

Azure vWAN is the gateway into Microsoft Global Network. Barracuda CloudGen WAN automates the process of building a secure high-performance branch-to-branch network via Azure Virtual WAN hubs into Microsoft’s Global Network. Every geography region requires an Azure Virtual WAN hub.

Microsoft Global Network

Microsoft owns and operates one of the largest backbone networks in the world. This global and sophisticated architecture, spanning more than 160,000 miles, connects data centers and customers.

The Microsoft Global Network is a central part of delivering a great cloud experience. Connecting Microsoft data centers across constantly growing number of Azure regions and large mesh of edge-nodes strategically placed around the world, this global network offers both the availability, capacity, and the flexibility to meet any demand.

Barracuda components

Barracuda CloudGen WAN Management Portal

This portal is activated with the first CloudGen WAN service ordered and is free-of-charge. It serves central management of all Barracuda CloudGen WAN components in an organization’s network.

Barracuda CloudGen WAN service

This is the CloudGen WAN component that is hosted either in a regional Azure Virtual WAN hub or in a private cloud (on-premise). This component runs on SaaS licensing and ordering, licensing, and payment process is run directly within Microsoft Marketplace.

From a performance-based point of view, CloudGen WAN service is available for a variety of scale units (from 2-80) with aggregated bandwidths between 1 and 40 Gbps and single tunnel performances ranging from 500 Mbps to 15 Gbps as well as for all desktop and 1U rackmount hardware appliances.

CloudGen WAN service can be ordered and licensed directly via Azure Marketplace.

Barracuda CloudGen WAN site device

This on-premises component of CloudGen WAN can be run as hardware or virtual appliance - both available in several different model specifications. From a licensing perspective, customers can run the site device either on BYOL or SaaS (a.k.a. PAYG, Pay-as-you-go) schemes.

Please note that, as for all Barracuda products, an active Energize Updates subscription is mandatory for every CloudGen WAN appliance (hardware or virtual).

CloudGen WAN site devices can be ordered and licensed via Barracuda Value Added Reseller. Alternatively, please get in touch with your local Barracuda Sales Representative.

Examples

Example A - Requiring one Azure Virtual WAN hub of scale unit (SU) 2 and 25x T100 with BYOL with a one-year subscription.

ITEM	PRODUCT CODE (SKU)	QUANTITY	ORDERING VIA	PAYMENT VIA
Microsoft Azure Virtual WAN + hub	n/a	1	Azure	Azure
CloudGen WAN Gateway	n/a	1x 2 SU	Azure	Azure
CloudGen WAN T100 hardware appliance	CGW-T100B	25	Barracuda ^[1]	Barracuda
Energize Updates BYOL for T100 hardware appliances	CGW-T100-EU-1M	25	Barracuda ^[1]	Barracuda

Example B - Requiring four Azure Virtual WAN hubs of scale unit (SU) 2 and 25x T100 with SaaS licensing.

ITEM	PRODUCT CODE (SKU)	QUANTITY	ORDERING VIA	PAYMENT VIA
Microsoft Azure Virtual WAN + hub	n/a	4 (one per region)	Azure	Azure
CloudGen WAN Gateway	n/a	4x 2 SU	Azure	Azure
CloudGen WAN T100 hardware appliance	CGW-T100B	25	Barracuda ^[1]	Barracuda
Energize Updates SaaS for T100 hardware appliances	CGW-T100-EU-SS	25	Barracuda ^[1]	Azure

Example C - Requiring two hubs of scale unit (SU) 40 and 50x VT3000 with SaaS licensing.

ITEM	PRODUCT CODE (SKU)	QUANTITY	ORDERING VIA	PAYMENT VIA
Microsoft Azure Virtual WAN + hub	n/a	2 (one per region)	Azure	Azure
CloudGen WAN Gateway	n/a	2x 40 SU	Azure	Azure
CloudGen WAN VT3000 virtual appliance	CGW-VT3000	50	Barracuda ^[1]	n/a
Energize Updates SaaS for VT3000 virtual appliances	CGW-VT3000-EU-SS	50	Barracuda ^[1]	Azure

¹ Please get in touch with your local Barracuda Sales Representative or Barracuda Value Added Reseller.

Product codes

Desktop appliances

CLOUDGEN WAN T100B	SKU
Barracuda CloudGen WAN T100B hardware unit	CGW-T100B
Demo	CGW-T100B--demo
Demo conversion	CGW-T100-DC
Energize Updates	
Monthly	CGW-T100-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-T100-EU-SS
Hardware options	
Rackmount kit	CGW-T100B-RK015

CLOUDGEN WAN T200C	SKU
Barracuda CloudGen WAN T200C hardware unit	CGW-T200C
Demo	CGW-T200C--demo
Demo conversion	CGW-T200-DC
Energize Updates	
Monthly	CGW-T200-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-T200-EU-SS

1U rack mount appliances

CLOUDGEN WAN T400C	SKU
Barracuda CloudGen WAN T400C hardware unit	CGW-T400C
Demo	CGW-T400C--demo
Demo conversion	CGW-T400-DC
Energize Updates	
Monthly	CGW-T400-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-T400-EU-SS

CLOUDGEN WAN T600D	SKU
Barracuda CloudGen WAN T600D hardware unit	CGW-T600D
Demo	CGW-T600D--demo
Demo conversion	CGW-T600-DC
Energize Updates	
Monthly	CGW-T600-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-T600-EU-SS

CLOUDGEN WAN T900B	SKU
Barracuda CloudGen WAN T900B hardware unit	CGW-T900B
Demo	CGW-T900B--demo
Demo conversion	CGW-T900-DC
Energize Updates	
Monthly	CGW-T900-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-T900-EU-SS

DIN rail compatible appliances

SECURE CONNECTOR 20	SKU
Barracuda Secure Connector 20 hardware unit	BNGFSC20a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC2<duration>
Spare power supply (external)	BNGFSCAPSUa

SECURE CONNECTOR 21	SKU
Barracuda Secure Connector 21 hardware unit	BNGFSC21a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC2<duration>
Spare power supply (external)	BNGFSCAPSUa

SECURE CONNECTOR 24 (INTERNATIONAL)	SKU
Barracuda Secure Connector 24 hardware unit	BNGFSC24a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC2<duration>
Spare power supply (external)	BNGFSCAPSUa

SECURE CONNECTOR 25 (INTERNATIONAL)	SKU
Barracuda Secure Connector 25 hardware unit	BNGFSC25a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC2<duration>
Spare power supply (external)	BNGFSCAPSUa

SECURE CONNECTOR 26 (NORTH AMERICA)	SKU
Barracuda Secure Connector 26 hardware unit	BNGFSC26a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC2<duration>
Spare power supply (external)	BNGFSCAPSUa

SECURE CONNECTOR 27 (NORTH AMERICA)	SKU
Barracuda Secure Connector 27 hardware unit	BNGFSC27a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC2<duration>
Spare power supply (external)	BNGFSCAPSUa

SECURE CONNECTOR 28 (NORTH AMERICA / VERIZON)	SKU
Barracuda Secure Connector 28 hardware unit	BNGFSC28a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC2<duration>
Spare power supply (external)	BNGFSCAPSUa

SECURE CONNECTOR 29 (NORTH AMERICA / VERIZON)	SKU
Barracuda Secure Connector 29 hardware unit	BNGFSC29a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC2<duration>
Spare power supply (external)	BNGFSCAPSUa

SECURE CONNECTOR 30	SKU
Barracuda Secure Connector 30 hardware unit	BNGFSC30a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC3<duration>
Spare power supply (external)	BNGFSCAPSUa

SECURE CONNECTOR 31	SKU
Barracuda Secure Connector 31 hardware unit	BNGFSC31a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC3<duration>
Spare power supply (external)	BNGFSCAPSUa

SECURE CONNECTOR 34	SKU
Barracuda Secure Connector 34 hardware unit	BNGFSC34a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC3<duration>
Spare power supply (external)	BNGFSCAPSUa

SECURE CONNECTOR 35	SKU
Barracuda Secure Connector 35 hardware unit	BNGFSC35a
Service subscription (incl. Energize Updates ; monthly)	CGW-SV01-SC3<duration>
Spare power supply (external)	BNGFSCAPSUa

CLOUDGEN WAN T93A	SKU
Barracuda CloudGen WAN T93A hardware unit	CGW-T93A
Demo	CGW-T93A--demo
Demo conversion	CGW-T93-DC
Energize Updates	
Monthly	CGW-T93-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-T93-EU-SS
Hardware options	
Spare DIN rail mount	CGWT93A-RK018
External power supply (optional)	CGWT93A-PA009

CLOUDGEN WAN T193A	SKU
Barracuda CloudGen WAN T193A hardware unit	CGW-T193A
Demo	CGW-T193A--demo
Demo conversion	CGW-T193-DC
Energize Updates	
Monthly	CGW-T193-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-T193-EU-SS
Hardware options	
Spare DIN rail mount	CGWT93A-RK018
External power supply (optional)	CGWT93A-PA009

Virtual appliances

CLOUDGEN WAN VT100	SKU
Barracuda CloudGen WAN VT100 software unit	CGW-VT100
Demo	CGW-VT100--demo
Demo conversion	CGW-VT100-DC
Energize Updates	
Monthly	CGW-VT100-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-VT100-EU-SS

CLOUDGEN WAN VT500	SKU
Barracuda CloudGen WAN VT500 software unit	CGW-VT500
Demo	CGW-VT500--demo
Demo conversion	CGW-VT500-DC
Energize Updates	
Monthly	CGW-VT500-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-VT500-EU-SS

CLOUDGEN WAN VT1500	SKU
Barracuda CloudGen WAN VT1500 software unit	CGW-VT1500
Demo	CGW-VT1500--demo
Demo conversion	CGW-VT1500-DC
Energize Updates	
Monthly	CGW-VT1500-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-VT1500-EU-SS

CLOUDGEN WAN VT3000	SKU
Barracuda CloudGen WAN VT3000 software unit	CGW-VT3000
Demo	CGW-VT3000--demo
Demo conversion	CGW-VT3000-DC
Energize Updates	
Monthly	CGW-VT3000-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-VT3000-EU-SS

CLOUDGEN WAN VT5000	SKU
Barracuda CloudGen WAN VT5000 software unit	CGW-VT5000
Demo	CGW-VT5000--demo
Demo conversion	CGW-VT5000-DC
Energize Updates	
Monthly	CGW-VT5000-EU-1M
SaaS subscription (billed hourly via Azure Marketplace)	CGW-VT5000-EU-SS

Certificates



CE Declaration of Conformity Barracuda Networks

We,
Manufacturer's Name: Barracuda Networks
Manufacturer's Address: 5225 Hellyer Ave. Suite 150
San Jose, CA 95138
USA

Hereby, declare under our sole responsibility that the requirements set out in the Directives 2014/35/EU, 2014/30/EU, 2014/53/2014, 2015/863/EU, 2012/19/EU has been fully fulfilled on our product indication below:

Barracuda CloudGen WAN

The object of the declaration described above is in conformity with the relevant Union harmonization legislation:

Electrical Safety (LVD) 2014/35/EU
Electromagnetic compatibility directive (EMC) 2014/30/EU
Radio Equipment Directive (RED) 2014/53/EU
Restriction of Hazardous Substances Directive (RoHS) 2015/863/EU
Waste Electrical and Electronic Equipment Directive (WEEE) 2012/19/EU

The following standards and technical specifications have been applied:

EN 55032:2015 + AC:2016 Class A
EN 55024:2010+A1:2015 Class A
EN 61000-3-2:2014 Class A
EN 61000-3-3:2013
EN 300 328 V2.1.1
EN 301 893 V2.1.1
EN 301 489-1 V2.2.0
EN 301 489-17 V3.2.0
EN 62311:2008
EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

Signed for and on behalf of:

Signature, Date, Place :  September 16, 2020, USA
Name and Job Title : Ken Martin / SVP, World Wide Manufacturing Ops.



September 16, 2020

To Whom It May Concern:

Barracuda Networks Inc. ("Barracuda") hereby confirm that the Barracuda CloudGen WAN complies with the UN Manual Test and Criteria, Part III, subsection 38.3, Revision 6, Amendment 1 (UN 38.3). This is based on documents gathered from our supply chain which integrates the lithium cell battery into the system.

Thank you for your attention to this matter.

Best Regards,

A handwritten signature in black ink, appearing to read "Ken Martin", with a long horizontal stroke extending to the right.

Ken Martin
SVP Worldwide Manufacturing Operations
Barracuda Networks Inc.



Document version 2.3
Applies for firmware version 8.3.x

Barracuda Networks, Inc.
barracuda.com