

Albeego-Nomad

The Albeego-Nomad is a compact, next generation smart bonded device providing an instantly available, fast, stable and secure broadband connection



 www.albeego.com

 info@albeego.com

 +44 (0) 333 533 0033

Bonded Connected Mobility



The Albeego-Nomad is a compact, next generation smart bonded device providing an instantly available, fast, stable, and secure broadband data connection for an individual or small business group.

Specifically designed for bonded mobile connectivity, the compact router weighs just 1.4kg including the battery. The Albeego-Nomad is compact enough to be carried in a small bag or in a laptop case.

The router bonds multiple 3G, 4G, LTE or 5G connections together to form a broadband connection when static, or on the move, and enables QoS and traffic shaping to be applied across the bonded group.

Designed for simple, rapid deployment, Albeego-Nomad is a self-optimising system requiring no user configuration or training. It uses the latest in IPsec VPN technology to enable highly encrypted bonding at layer 3 and incorporates patented active counter cyber and connection optimisation features.

Designed to eliminate poor coverage, protect user anonymity, and detect attacks, the Albeego-Nomad uses patented Albeego technology to evade, recover then re-obfuscate identity if compromised, ensuring complete protection for the user.



Key Features

- Ultra low SWAP for ease of mobility
- Enables QoS and traffic shaping to be applied across the bonded group
- Zero touch system with no training required enabling quick and simple deployment
- Works on the move by dynamically managing its on-board mobile network connections
- Smart power management for maximum battery life and uses standard, off-the-shelf USB C charger
- Identifies, avoids, counters and reports cyber attacks
- Hardware agnostic, open interfaces, evergreen technology to avoid vendor lock-in and technology obsolescence

Special Features

- Provided as a fully supported and managed service
- Zero touch operation, switch on and connect
- Incorporating BeeSIM, a fully managed roaming SIM service
- Over the Air (OTA) SIM provisioning for local IMSI operation
- Global network access with local breakouts
- Uses Albeego's global network, or can deploy as a private network
- On board battery for tetherless operation

Special Features

Feature	Release A (Current)	Release B (Q2 2024)	Release C (Q4 2024)
Bonding capacity	150 Mbps	800 Mbps	800 Mbps
Layer 3 bonding client allowing QoS and traffic prioritisation	●	●	●
Online and tele Network Operations Centre access	●	●	●
Online and tele Security Operations Centre access	●	●	●
Private Cloud Network or Public Cloud integration options	●	●	●
Cloud or bare metal server configuration	●	●	●
Dynamic global exit node orchestration	●	●	●
Multi Network SIM compliant	●	●	●
Choice of radio technology and category (LTE Cat 6 standard)	●	●	●
Up to 400 Mbps DL 120 Mbps UL (network dependant)	●	●	●
Ethernet, VSAT, Wi-Fi WAN bonding	●	●	●
10,200 mAh internal battery pack	●	●	●
USB C charging (phone charging)	●	●	●
Integrated UPS	●	●	●
BeeSIM - eSIM/eUICC Over the Air roaming option	×	●	●
BeeSIM - Agile SIM technology	×	●	●
Mobile network intelligence enabled	×	●	●
Automated mobile connection optimisation	×	●	●
AlbeeSmart Cloud based GNI access	×	×	●
Automated DoS threat detection	×	×	●
Active counter cyber response, DoS recovery	×	×	●
Forced mobility mode	×	×	●
IMSI cycling, anonymity protection	×	×	●
Mobile network black/whitelisting	×	×	●
Dynamic Exit Node deployment	×	×	●

Hardware Technical Specifications 0.1

System Core

System on a Chip (SOC)	Quad Core Intel Atom® X5-Z8350 Processor (2Mb cache, 1.44GHz up to 1.92GHz) CPU
Memory	2GB DDR3L-1600 (upgradeable to 4GB)
Storage capacity	16GB eMMC standard, 32GB / 64GB upgrades on request

I/O Interface

Ethernet	1 x GB ethernet (full speed) RJ-45
RTC	Yes
Camera interface	CSI (4 mega pixel) (internal)
USB 3.1	1 x UB3.0
USB 2.1 (internal)	1 x UB2.0
Video and AV	HDMI 1.4b I2S audio port (internal)
Graphics	Intel® HD 400 graphics ,12 EU GEN 8, up to 500MHz support DX*11.1/12, open GL*4.2, open CL*1.2 OGL ES3.0, H.264, HEVC(decode), VP8
Display interface	DSI / eDP internal I/O
Expansion	40 pin general purpose bus, supported by Altera Max V. ADC 8-bit@188ksos (internal)

Software

Operating systems	Linux (Ubilinux, Ubuntu, Yocto), SE Linux compliant
-------------------	---

Power Supply

DC input	USBC-5VDC@4A
Battery	Internal 3.6V, 10.2Ah
Certification	UN38.3 certified for safe transport
Charging	USB C charging using phone/tablet charging cable

Hardware Technical Specifications 0.2

Physical

Dimensions	220mm x 140mm x 35mm
Weight	1.4kg (including battery)
Mounting	Day bag, laptop bag or desktop

Environmental

Operating temperature	-32 to 140°F / 0°C to 60°C
Storage temperature	-40°C to 85°C
Humidity	10% to 90% , non-condensing
Certification	CE/FCC Class A, RoHS compliant Microsoft Azure certified, REACH

Signal/Power Distribution

AlbeeLink ®	AlbeeLink stack with integrated USB hub, UPS and charging circuits.
-------------	---

3G/4G/LTE/LTE(A) Radio Systems

Options	Default option is 4G/LTE Cat 6, higher 5G and lower 4G/LTE Cat 4 options available
---------	--

Default Mobile Network Modem Configuration

Radios	3xQuectel EP06 STANDARD, 3xSierra Wireless® AirPrime® EM Series 7455 available on request
Category and rates	Cat 6 – 3 x 300Mbps DL/ 50Mbps UL
4G LTE (A) frequency bands	B1-B5, B7, B12, B13, B20, B25, B26, B29, B30, B41
3G frequency bands	B1, B2, B3, B4, B5, B8
2G frequency bands	2G working inhibited due to poor 2G security
Satellite location	GPS, Glonass, Beidou, Galileo
Regulatory approvals	CE, FCC, GCF, IC, NCC, PTCRB
Carrier approvals	AT&T, Bell, Rogers, Sprint, Telus, US Cellular, Verizon, Vodafone

Hardware Technical Specifications O.3

Default Wi-Fi Access Point

Radio	TP-Link AC600 Nano
Standards	802.11 a/b/g/n/ac Dual Band 2.4Ghz and 5Ghz
Max data rate	433Mbps

Security as per latest NCSC guideline - Prime Cryptographic Profile

Encryption	AES 256 CBC
Pseudo-random function	HMAC-SHA-256 (RFC4868)
Diffie-Hellman group	256bit random ECP (RFC5903) group 19
Authentication	ECDSA-256 with SHA256 on P-256 curve
Management	Dedicated zero tier management network