

# Xatellite ST2

Industrial Grade Rugged Palm Size 5G CPE



## BGP4+ Available

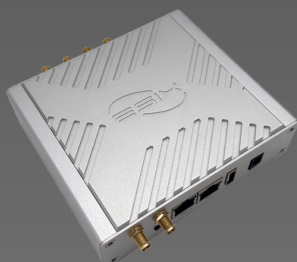
With the powerful Quad-Core ARM V8 CPU and Dedicated Network Processing Unit Acceleration in place, BGP4+ is now at your disposal.

## Across network Overlay pure L2 or L3 tunnel

Pure L2 or L3 tunnels covered by the network have the advantages of improving efficiency.

## Palm size CPE

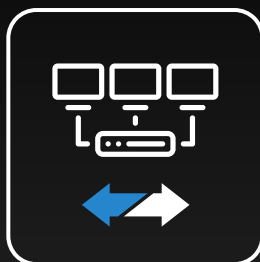
The ST2 is a compact 5G CPE ideal for various industrial environments with space constraints.



## Aluminum Alloy Cover

Designed for use in various complex indoor industrial environments, it provides high-performance connectivity to end devices.

## SD-WAN Ready



Enhance your SD-WAN deployment with the power of Multi Ethernet WANs. You can leverage all available WAN connections to ensure uninterrupted connectivity and keep your business operations running smoothly.

## Multi WANs Load Balancing

Multiple WANs create higher bandwidth and Failover between connections within milliseconds for low latency and safe operation.



## eBrain (Central Management)

A cloud-based, centralized device management platform with multi-tenant support, enabling efficient management of devices across multiple locations and branches.

## Use Cases



Vehicle



Branche office



Factory Manufactures



Logistics



CELLULAR NETWORK

<b>Communication Standard:</b>	<b>4G LTE Transmission Rate:</b>
3GPP Release 16 NSA/SA operation Sub-6 GHz	CAT-19 Downstream 1.6 Gbps CAT-18 Upstream 200 Mbps
<b>Applicable Network :</b>	<b>Network Frequency Band:</b>
5G NR SA, 5G NR NSA LTE-FDD, LTE-TDD, WCDMA	5G(SA): N1/2/3/5/7/8/12/13/14/18 /20/25/26/28/29/30/38/40/41 /48/66/70/71/75/76/77/78/79 5G(NSA): N1/2/3/5/7/8/12/13/14/18 /20/25/26/28/29/30/38/40/41 /48/66/70/71/75/76/77/78/79 4G: B1/2/3/4/5/7/8/12/13/14/17/18 /19/20/25/26/28/29/30/32/34 /38/39/40/41/42/43/48/66/71
<b>5G NR Transmission Rate:</b>	<b>Antenna:</b>
5G SA Sub-6: <ul style="list-style-type: none"><li>Downstream 2.4Gbps</li><li>Upstream 900 Mbps</li></ul> 5G NSA Sub-6: <ul style="list-style-type: none"><li>Downstream 3.4 Gbps</li><li>Upstream 550 Mbps</li></ul>	4 × 5G antennas (SMA)

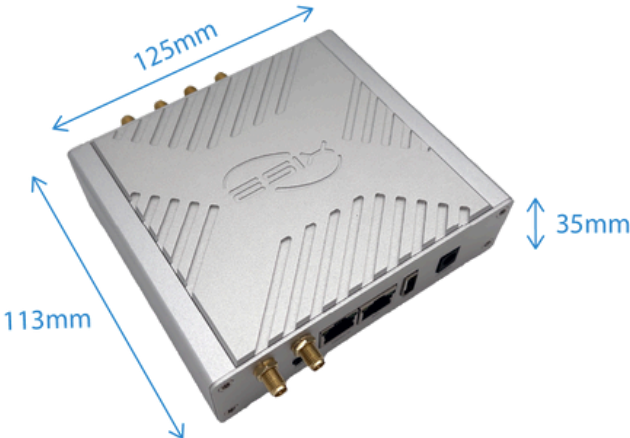
Wi-Fi

<b>Wi-Fi Standard:</b>	<b>Operating Frequency:</b>
Wi-Fi 6 802.11 a/b/g/n/ac/ax	2412MHz ~ 2462MHz 5180MHz ~ 5825MHz
<b>Transmission Rate:</b>	<b>Wi-Fi Connections:</b>
2×2 MU-MIMO WiFi 2.4GHz radio Up to 574Mbps physical data rate 2×2 MU-MIMO WiFi 5GHz radio Up to 1210Mbps physical data rate	Max 512 × Wi-Fi connections (concurrently)
<b>Modulation Technology:</b>	<b>Antenna:</b>
802.11 b: DSSS (DBPSK, DQPSK, CCK) 802.11 a/g/n: OFDM (BPSK, QPSK, 16-QAM , 64-QAM) 802.11 ac: OFDM (BPSK, QPSK, 16-QAM , 64-QAM, 256-QAM) 802.11 ax: OFDM (BPSK, QPSK, 16-QAM , 64-QAM, 256-QAM, 1024-QAM)	2 × Dual bands Wi-Fi antennas (SMA)

TECHNICAL SPECIFICATION

Hardware	<b>CPU:</b> 64-bit Quad-Core ARM v8 <b>NPU:</b> Twelve-Threaded network processing unit <b>Form Factor:</b> Aluminum alloy waterproof case <b>Mounting Option:</b> 75 × 75 mm VESA mount
I/O	<b>LAN/WAN ports:</b> 2 × GE RJ45 Ethernet ports (Including 1 × POE+ input port) <b>SD Storage:</b> 1 × Micro SD Slot <b>SIM Option:</b> 2 × Nano Sim slots (Single Pass, Single Standby) <b>USB Ports:</b> 1 × USB 2.0 (ModBus, RS232/TTY) <b>Reset:</b> 1 × Reset / Factory Restore Button
Functions	<b>Network Features:</b> Support RIPv1, RIPv2, RIPvng, OSPFv2, OSPFv3, BGP-4, BGP-4+, Policy-based Routing, NAT, PAT, BFD, MPLS, Multi-WAN, IPv6/IPv4 dual stack, SRv6, 802.1Q VLAN, VxLAN, STP, RSTP, MSTP, QinQ over IP, MQTT Broker, etc. <b>Cellular:</b> Support Frequency Locking, Network Slicing, Bridge Mode, 5G LAN <b>Security:</b> Support SIM PIN protection, Firewall, Mac address access control, IP address access control, MACsec, Wi-Fi Encryption authentication <b>VPN:</b> Support IPsec VPN, DMVPN, GRE, WireGuard, EVPN-VXLAN, IPfiber(L2 overlay) <b>GNSS:</b> Support GPS, Beidou, Galileo(Optional) <b>Administrator Maintenance:</b> Support SNMP, SSH, WebUI, eBrain(Central Management)
Performance	<b>Routing throughput (Max) :</b> 4Gbps <b>IPSecVPN throughput (Max) :</b> AES-128-SHA1: 420 Mbps AES-256-SHA256: 380 Mbps <b>IPfiber throughput (Max) :</b> Standard Encryption (AES-128-GCM-SHA256): 640 Mbps Enhanced Encryption (AES-256-GCM-SHA384): 440 Mbps <b>MACsec throughput (Max) :</b> GCM-AES-128: 730 Mbps GCM-AES-256: 710 Mbps

Operating	<b>Temperature:</b> -35°C ~ 75°C -40°C ~ 85°C (Extended) <b>Humidity:</b> 5% ~ 95% non-condensing
Ingress Protection Rating	IP41
Storage	<b>Temperature:</b> -40°C ~ 85°C
Power input	(1) Standard DC-044A 5.5 × 2.1mm DC Jack input 24 ~ 56V DC (2) IEEE 802.3 AT PoE+ Available adaptors - 24V/2A adaptor (default) - POE+ injector (optional)
Power Consumption	8.5W: WiFi6 Off, 5G module On (no data flow) 16.5W: WiFi6 On, 5G module On (iperf3 via WiFi6 & 5G Modem)
Weight (body):	≈ 690g
Dimension	125 × 113 × 35mm



There might be colour aberration between picture and each existence

## ORDERING INFORMATION



SKU	Packing List
X5125-50-102 (Reference: Xatellite ST2)	SKU: X5125-50-102 - Xatellite ST2 router body - Single 5G Module inside - SMA Wi-Fi Antenna (EA-S-W) × 2 - SMA 5G/4G/GNSS Antenna (EA-S-5) × 4 - AC/DC Adapter, 24V DC/2A - DC Jack (EP-D-24D) × 1 *PoE+ Injector is not included.
Accessories	
EP-P-30R	PoE+ Injector 30W
EP-D-12D	AC/DC Adaptor, 24V DC/2A - DC Jack
EA-5M-2	External Waterproof 5G Mushroom Antenna (2 meters )
EA-5M-3	External Waterproof 5G Mushroom Antenna (3 meters)
EA-S-W	SMA Wi-Fi Antenna
EA-S-5	SMA 5G/4G/GNSS Antenna

\*Any special requirements, please contact to sales representative.

## **STANDARD HARDWARE/SOFTWARE WARRANTY POLICY**

eSIX warrants solely to the original end-user purchaser ("Purchaser") that hardware ("Hardware") purchased from eSIX or our Authorized Partners will be free from defects in materials and workmanship when used within the limits set forth in the documentation (data sheet and user manual) for a period of twelve (12) months, starting from the time of shipment of the Hardware, or the date the Hardware was purchased according to sales registration, whichever is later. (If a 36-month warranty is required, please contact the sales representative.)

This limited warranty is non-transferable and extends only to the original end-user purchaser who acquired the Hardware from an Authorized Partner who has the right to sell in the end-user's territory. eSIX explicitly disclaims any warranty obligations for Hardware that is sold outside of the assigned territory of an Authorized Partner. Your exclusive remedy and eSIX' entire liability under this limited warranty will be for eSIX, at its option, to (a) repair the Hardware with new or refurbished parts, or (b) replace the Hardware with a reasonably available equivalent new or refurbished eSIX Hardware. Any repaired or replacement Hardware will be warranted for the remainder of the original Warranty Period or thirty (30) days, whichever is longer. All Hardware and parts that are replaced become the property of eSIX.

## **EXCLUSION AND LIMITATIONS**

This limited warranty does not apply if: (a) the Hardware assembly seal has been removed or damaged, (b) the Hardware has been altered or modified, except by eSIX, (c) the Hardware damage was caused by use with non eSIX Hardware, (d) the Hardware has not been installed, operated, repaired, or maintained in accordance with instructions supplied by eSIX, (e) the Hardware has been subjected to abnormal physical or electrical stress, abuse, misuse, negligence, or accident, (f) the serial number on the Hardware has been altered, defaced, or removed, (g) the Hardware damage was caused by lightning, power surges or wrong voltage usage, or (h) the Hardware is supplied or licensed for beta, evaluation, promotional, testing or demonstration purposes for which eSIX does not charge a purchase price or fee.

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