

# AirGuard® NexGen Data Point

3e-523NF



AirGuard NexGen Data Point (3e-523NF)

## KEY BENEFITS

- **Secure wireless connectivity:** A range of security options to accommodate mandated information assurance requirements
- **Reliable performance:** Supports growing demand for streaming media and advanced applications
- **Flexible functionality:** Configurable as a mesh node, bridge, access point or client for seamless integration
- **Easy to manage:** Web GUI simplifies wireless device configuration and management
- **Cost effective:** Wireless networking avoids cabling, simplifies incremental network build-out

## KEY FEATURES

- Designed for AES 256, FIPS 140-2, 802.11i validation and Common Criteria EAL Level 4 certification
- Supports 802.11n wireless standard with MIMO, channel bonding and packet aggregation to achieve link rates of up to 300 Mbps
- Self-forming, self-healing mesh network for always-on availability
- Standards-based interface connectivity for devices with Ethernet or serial data interfaces

## Robust 802.11n wireless data connectivity for secure network communications

3eTI's AirGuard® NexGen Data Point 3e-523NF is a next-generation secure wireless mesh device that provides connectivity for seamless voice, video and data communications in the most challenging environments. The freedom from geographical constraint makes the device ideal for military or defense environments such as operating facilities, base camps and field units, which require highly secure communications but don't have the luxury of trenching to accommodate wired solutions.

Using the latest 802.11n wireless technologies to achieve link rates of up to 300 Mbps, the Data Point provides a self-forming, self-healing wireless mesh network solution with the reliable performance needed to support the growing demand for streaming media and advanced applications. Devices, sensors or computers connected to the Data Point can communicate seamlessly over radio links secured by government-certified, field-proven encryption technologies.

### Robust Security for Wi-Fi and Bridge Communications

The Data Point is designed for Common Criteria EAL Level 4 Certification and FIPS140-2 testing and validation, already proven on 3eTI products deployed in both military and commercial operations. As with all 3eTI products, the Data Point provides a range of security options to accommodate a wide spectrum of information assurance requirements.

### Flexible, Cost-Effective Networking

The NexGen Data Point provides secure wireless connectivity for any device supporting Ethernet or serial data interfaces. It can be configured as a mesh node, bridge, access point or client, providing the flexibility to support a broad range of network topologies and applications. As a result, the Data Point provides a seamless and cost-effective wireless solution that leverages existing devices, systems and investments.

### MIMO High Capacity Architecture

The Data Point exploits IEEE 802.11n wireless technologies to deliver optimal performance in real-world environments. Multiple-input multiple-output (MIMO) technology, a signal processing and smart antenna technique, transmits multiple data streams through multiple antennas to improve range, reliability and performance. Channel bonding can use two separate non-overlapping channels at the same time to transmit data, improving performance by exploiting available bandwidth, while packet aggregation allows more data to be transmitted in each packet.

### Designed for Control Applications

Using 802.11e enhanced quality of service (QoS) traffic management, the Data Point maintains a low and predictable latency of less than 1ms, a performance standard which is critical for closed loop control applications. Serial interface and flexible I/O with PLC simplified integration with a variety of remote sensors.

## SPECIFICATIONS

### WIRELESS FEATURES

- Multiple Wi-Fi RFs: 802.11a/b/g/n
- Operation modes:
  - Mesh
  - Access point
  - Bridge (Client-Bridge)
  - Client
- Self-forming, self-healing mesh network

### CERTIFICATIONS

(Pending final testing and validation)

- FIPS 140-2 validated
- WiFi interoperability certification
- NIAP EAL 4 Common Criteria certified
- MIL-STD-901D shock
- MIL-STD-167 vibration
- DoD PKI
- EMI: FCC Class A
- MIL-STD-464/A Par 5-13 / EMCON
- MIL-HDBK-2036 DoD-STD-1399/301A

### SECURITY

- Non-FIPS mode
  - IEEE 802.11i and WPA1: AES-CCMP
- FIPS 140-2 mode
  - Diffie-Hellman Key Exchange
  - FIPS - AES - 128-, 192-, 256-bit
- FIPS - 802.11i PSK and 802.1x
- Enable/disable broadcast SSID
- MAC address filtering
- Rogue wireless AP detection with email notification
- NSA Suite B upgradeable
- Wireless AP and wireless client activities monitoring

### MECHANICAL

- 90mm x 120mm x 60mm (without connectors)
- 260mm x 200mm x 60mm (with connectors)

### ENVIRONMENTAL

- Operating temperature: -40° C to +70° C
- Storage temperature: -40° C to +80° C

### INTERFACES

- One 10/100/1000 Base-T WAN (UPLINK) Ethernet port
- One 10/100/1000 Base-T LAN (LOCAL) Ethernet port
- Three MIMO antennas
- RS-232 / 422 / 485 w/DB-18 connector

### POWER

- +5 to +12 VDC +/- TBD
- Power consumption: TBD

### PERFORMANCE

- Aggregate 802.11n throughput: 300 Mbps max

### LED INDICATORS

- Power
- WAN - Ethernet uplink indicator
- WLAN1 - AP activity light/link indicator
- WLAN2 - Bridge activity light/link indicator
- WLAN SS - Bridge signal strength indicator
- FIPS mode

### DEVICE MANAGEMENT

- Web server, HTTPS
- SNMP v1, v2, v3

### OPTIONS

- Power Options
  - Table top power supply 9 to 12 VDC
  - DIN rail mounted power supply 9 to 12 VDC
  - Pigtail - 1 meter length - with 3e-523NF power connector attached
  - Wiring PCBA
- Antenna Options
  - RP-SMA antenna - quantity three
  - DIN rail mountable plate to take 3 N connectors - with RP-SMA to N bulkhead cables
- Lightning arrestors
- CAT 6 Ethernet cables
- Serial cable RS-232



3eTI

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Pending Certifications