

# ES520 Secure Wireless Bridge

## Establishing Networking and Communications

### Fortress Secure Wireless Bridge

The **Fortress ES520** allows organizations to quickly establish networking and communications in environments with no available infrastructure. With a **dual radio design** that allows for simultaneous wireless backhaul and wireless access, the ES520 offers high assurance **FIPS 140-2 validated security** as well as **industry leading radio range**.

Combining these services along with an eight port Ethernet switch in a **small and rugged form factor** enables the **ES520** to provide on-demand secure voice, video and data communications. Whether for rapidly deployable kits, vehicle area networks, emergency response or situational awareness, the **Fortress ES520** is the proven choice to meet the most challenging deployable networking requirements.



### Features and Benefits:

#### Simple and Secure Connectivity

The ES520 provides secure wireless connections to the network. An "all-in-one" device, the ES520 combines the features of a wireless access point, wireless bridge, switch and security gateway in a compact, rugged form factor ideal for use in rapid deployment for incident response or in a tactical network.

#### Maximum Range and Network Resilience

The ES520 allows organizations to quickly extend the availability of voice, video and data applications without compromising security. With powerful radios for access and reachback, portable and rugged form factor for harsh environments and high assurance security for protection, the ES520 ensures that network access can be made available almost anywhere.

**Fortress Secure Wireless Bridges** are "all-in-one" network access devices with built-in security. The **ES520** combines the functions of a wireless access point, wireless bridge, switch, and security gateway in a form factor engineered specifically for harsh outdoor environments.



## Product Datasheet

### Features and Benefits:

#### Highly Portable and Rugged Design

The rugged design and small form factor of the ES520 mean they can deliver dependable performance in a wide range of conditions, from arid mountainous desert environments to lowland jungles. The ES520 can be deployed in a "rapid response kit" or pole-mounted with its water-resistant face plate.

#### Easy to Configure and Manage

The ES520 requires minimal configuration and management, making them easy for field personnel to deploy. ES520s are designed for quick and intuitive management, whether through the browser-based management GUI or CLI.

#### Certified Security

With FIPS-validated, Layer 2, AES-256 encryption, Fortress products eliminate the opportunity for hackers to intercept important network data, view network addresses, or interrupt availability. Fortress offers proven security that has been thoroughly tested and deployed in the most demanding environments.

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### FEATURES AND SPECIFICATIONS

<b>Range</b>	<ul style="list-style-type: none"><li>• Tested up to 32 miles (directional antenna)</li><li>• Tested up to 7 miles (omnidirectional antenna)</li></ul>
<b>Performance</b>	<ul style="list-style-type: none"><li>• Up to 100 secure clients</li></ul>
<b>Encryption</b>	<ul style="list-style-type: none"><li>• AES-128, 192, 256</li><li>• WPA2 (802.11i)</li><li>• NSA Suite B Cryptography ungradeable</li></ul>
<b>Authentication</b>	<ul style="list-style-type: none"><li>• Internal or external RADIUS, PKI/CAC</li><li>• Network, user and device</li></ul>
<b>Management</b>	<ul style="list-style-type: none"><li>• Secure browser-based GUI, CLI or SNMP</li></ul>
<b>SSID Support</b>	<ul style="list-style-type: none"><li>• Up to 4 SSIDs</li></ul>

### HARDWARE

<b>Enclosure</b>	<ul style="list-style-type: none"><li>• Rugged .125" aluminum</li><li>• NEMA 4</li></ul>
<b>Mounting</b>	<ul style="list-style-type: none"><li>• Mast mounting kit and weatherizing kit included</li></ul>
<b>Chassis Dimensions</b>	<ul style="list-style-type: none"><li>• 2.7"H x 8.8"W x 8.2"D (6.9 cm x 22.4 cm x 20.8 cm)</li></ul>
<b>With Connector Ends</b>	<ul style="list-style-type: none"><li>• 2.7"H x 8.8"W x 10"D (6.9 cm x 22.4 cm x 25.4 cm)</li></ul>
<b>Weight</b>	<ul style="list-style-type: none"><li>• 4.9 lbs. (2.2 kg)</li></ul>
<b>Connections</b>	<ul style="list-style-type: none"><li>• Eight RJ-45 10/100 LAN ports w/ auto-MDIX and PSE</li><li>• RJ-45 10/100 weatherized WAN port with PoE receiver</li><li>• Two RJ-45 serial ports (1 console port)</li><li>• USB port for future functionality</li></ul>
<b>Radios</b>	<ul style="list-style-type: none"><li>• 400mW 802.11a/b/g radio (max transmit power is regulatory domain and configuration dependent)</li><li>• 400mW 802.11a radio (max transmit power is regulatory domain and configuration dependent)</li></ul>
<b>Antenna Support</b>	<ul style="list-style-type: none"><li>• 2 N-style external antenna connectors (female)</li></ul>
<b>Radio Modes of Operation</b>	<ul style="list-style-type: none"><li>• Wireless access point or bridge</li><li>• 802.11h</li></ul>
<b>Power Supply</b>	<ul style="list-style-type: none"><li>• Variable 7-30 or 36-60 VDC (AC adapter included)</li><li>• PoE (injector included)</li><li>• Weatherized power connector with tethered cap</li><li>• Polarity protection</li></ul>
<b>Power Draw</b>	<ul style="list-style-type: none"><li>• 13W maximum (not including PSE)</li></ul>
<b>Power Sourcing</b>	<ul style="list-style-type: none"><li>• PSE, maximum power draw 55W</li></ul>
<b>Port LEDs</b>	<ul style="list-style-type: none"><li>• Link, activity, status, PoE</li></ul>
<b>Radio LED</b>	<ul style="list-style-type: none"><li>• Strength and association</li></ul>
<b>Warranty</b>	<ul style="list-style-type: none"><li>• Includes 1 year of maintenance and support</li></ul>

### ENVIRONMENTAL

<b>Cooling</b>	<ul style="list-style-type: none"><li>• Convection (no fans)</li></ul>
<b>Operating Temperature</b>	<ul style="list-style-type: none"><li>• -10 to 55°C</li></ul>
<b>Humidity</b>	<ul style="list-style-type: none"><li>• 5 to 95%</li></ul>
<b>Weather Resistance</b>	<ul style="list-style-type: none"><li>• Water-resistant front panel cover plate included</li><li>• IP56</li><li>• NEMA 4</li><li>• Lightning arrestor</li></ul>
<b>Vibration, Bounce, &amp; Shock</b>	<ul style="list-style-type: none"><li>• MIL-STD 810F</li></ul>

### CERTIFICATIONS

<b>Safety &amp; Emissions</b>	<ul style="list-style-type: none"><li>• CE, FCC, UL 60950-1, IEC 60529 (CB Test)</li></ul>
<b>NIST</b>	<ul style="list-style-type: none"><li>• FIPS 140-2 Level 2</li></ul>
<b>Common Criteria</b>	<ul style="list-style-type: none"><li>• EAL3 Submitted</li></ul>