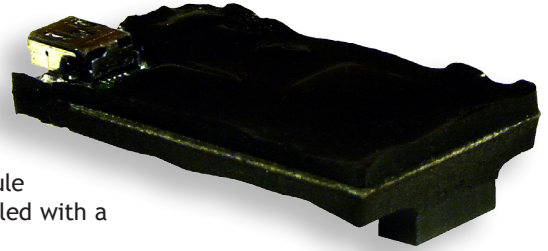


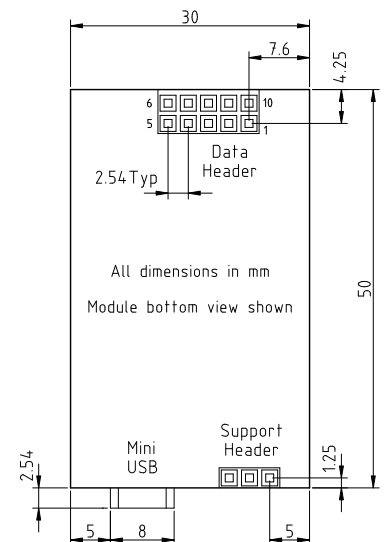
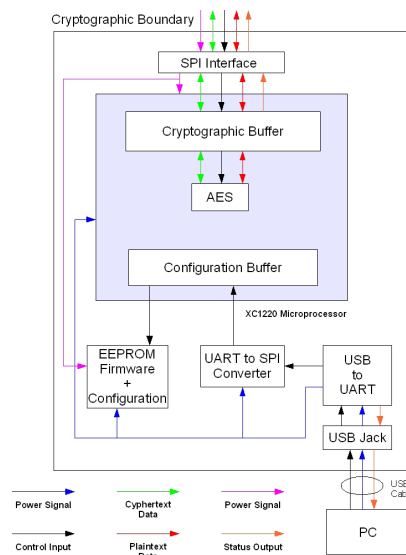
FIPS 140-2 High Security Encryption Module

The AvaLAN AW140 allows you to build your own products that inherit the AW140's NIST validation for FIPS 140-2 Level 2 256-bit encryption. This module carries its own validation and provides data encryption with secure hardware. The data interface is SPI (Serial Peripheral Interface) and can therefore be readily embedded into your own microcontroller circuitry. The control interface is USB. Simply plug in your laptop, set up the passwords and encryption key and then take it away, allowing physical control over the access to the configuration setup. The module is very small, just 30 by 50 mm (1.125 by 2 inches) and its circuit board is concealed with a government-approved tamper-evident coating.



Features

- NIST certified FIPS140-2 Level 2 encryption to ensure secure communication
- AES 128, 192 or 256-bit encryption up to 5 Mbps for user-specific applications
- Your product inherits this module's validation, allowing quick time to market
- SPI (Serial Peripheral Interface) provides quick and easy integration with your host microprocessor
- Mini USB Type B port allows easy configuration management with a PC or serial terminal
- Programming interface provides two separately password-protected user modes, Crypto Officer and User. The User can check status but only the Crypto Officer can set the encryption keys
- Physically and electrically tamper evident to protect encryption keys from becoming compromised
- Small form factor module will support virtually any hardware design
- 45mA @ 3.3 VDC for low power applications and small thermal impact
- -40 to + 85 °C temperature range for extreme climate robustness and reliability



Technical specifications

Characteristic	Specification
Encryption Throughput	5 Mbps
Certifications	NIST FIPS 140-2 Level 2, NIST FIPS 197, CBC coming soon
SPI Data Interface	2 x 5 pin header, 0.1" spacing plus 3 pin support header
Command Interface	Mini USB Socket
Size	30 mm wide, 50 mm long, 15 mm deep including connectors
Voltage Range	3.1 to 3.6 VDC
Power Consumption	45 ma at 3.3 VDC (150 mW)
Operating Temperature Range	-40° C to +85° C

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