

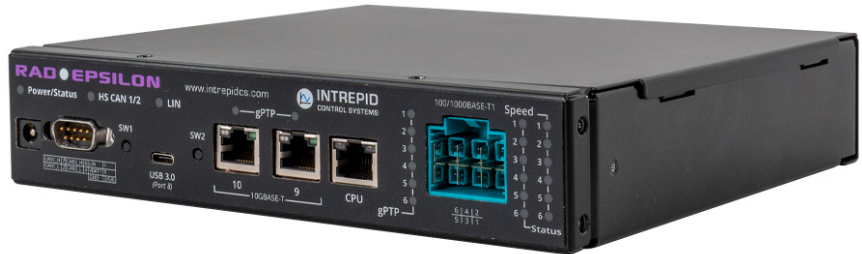
RAD-Epsilon

9-Port Gigabit Automotive Ethernet Managed Switch

Intrepid's RAD-Epsilon is a rugged 9-port Gigabit managed switch with Nvidia Jetson Nano Integration designed specifically for bench/vehicle network and Autonomous development. In addition to its Ethernet functionality, it integrates many of the key CAN, LIN, and scripting features found in our vehicle networking tools.

PRODUCT FEATURES:

- Marvell 88Q6113 Managed Switch designed for Automotive Environment
 - Embedded AVB/TSN protocol stack
 - IEEE 802.1Q tag support with 4096 VLANs
 - Port mirroring
 - Per-port address whitelisting/blacklisting
 - Ingress policing and rate limiting
 - Ternary Content Addressable Memory (TCAM)
- ETHERNET INTERFACES
 - 6x 100/1000BASE-T1 ports (MATEnet Connection System)
 - 2x 10GBASE-T Ports
 - 1x USB/GigE Bridge
- LEGACY NETWORKS
 - 2x CAN FD Channels w/ programmable termination
 - 1x LIN
- AVB/TSN STANDARDS SUPPORTED
 - 802.1AS – Generalized Precision Timing Protocol (gPTP)
 - 802.1Qav – Forwarding and Queuing for Time-Sensitive Streams (Credit Based Shaping)
 - 802.1Qbv - Enhancements for Scheduled Traffic (Time Aware Shaping)
 - Static Stream Reservation
- Embedded processor for scripting and embedded C applications
- Intrepid Security Module supporting cybersecurity applications
- LEDs for network status and device configuration
- Field-upgradeable firmware
- Optional Nvidia Jetson Integration for embedded Linux development
- 1U half-rack (9.5") form factor



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RAD-Epsilon

AVB/TSN USE CASES:

- AVB compliant bridge supporting static streams
- AVB/TSN network sensitivity analysis (Insert latency or switch hops; Add additional ECU's for more BE or stream traffic.)

MEDIA CONVERTER

The BASEs are covered! 10GBASE-T, 100/1000BASE-T1, 100/1000BASE-T, and a USB/GigE Bridge. A media converter is as simple as setting up bidirectional port forwarding between any 2 ports. The RAD-Epsilon can be configured for up to two T/T1 media converters without losing the use of the remaining ports of the switch!

GATEWAY APPLICATIONS:

In addition to providing a network interface to your PC, the embedded processor in the RAD-Epsilon can be programmed to run real-time applications such as network gateways. Applications can be programmed in Vehicle Spy's Function Blocks, C Code, or the Gateway Builder GUI, all of which are easily compiled to run on the embedded processor.

VEHICLE SPY ETHERNET APPLICATIONS:

While RAD-Epsilon does not function as an Automotive Ethernet Active Tap, this does not prevent it from taking advantage of some of Vehicle Spy's many Ethernet applications.

- AVDECC Controller
- SOME I/P Discovery, Subscription, and RPC
- DoIP
- GUI driven Gateway Builder

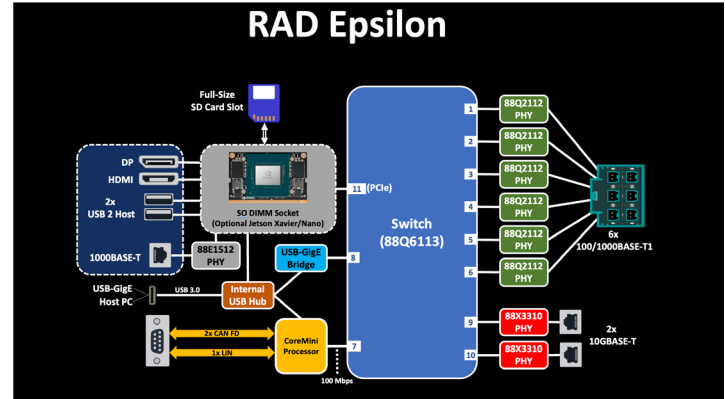
DEVICE SPECIFICATIONS

- Power supply: 4.5V – 40V operation
- Temperature range: -40°C to 85°C
- One-year limited warranty
- Fully-isolated USB with Microsoft-certified USB drivers
- Dimensions for RAD-Epsilon:
 - 8.25" L X 8.375" W X 1.875" H
- Weight for RAD-Epsilon/ Epsilon-T: 3.1 lbs

ORDERING INFORMATION:

Part Number	Description
RAD-Epsilon	9-Port Gigabit Automotive Ethernet Managed Switch (2x 10GBASE-T, 6x 1000BASE-T1, 1x USB3/GigE)

*Specifications subject to change. Please contact Intrepid for the latest information.



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