Enterprise 3 - *E3*

An EPIC Native Reader

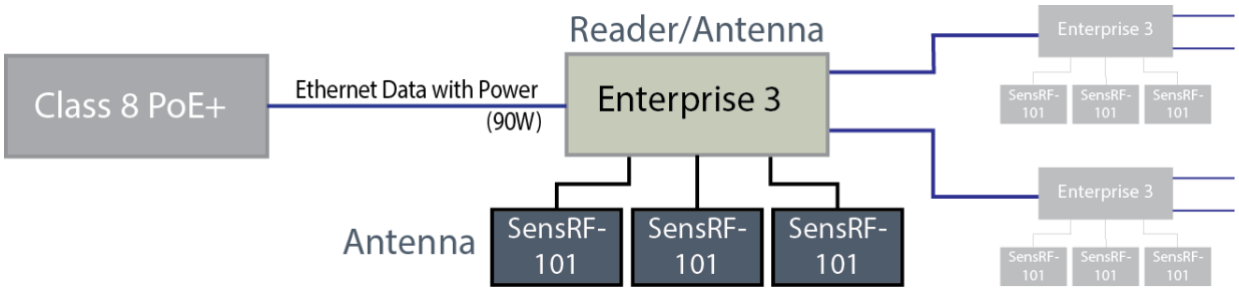
The Enterprise 3, or simply "***E3***", is an **EPIC native** RAIN RFID **reader** incorporating an internal 9.0dBic broadband **antenna**, and a network **switch** with an integrated **power distribution** system.

Unique to this reader:

- Inherent Security
- Native **EPIC** support
- Embedded passive sensor capability
- RESTful programming
- 4-in, 4-out powered GPIO
- Integrated antenna with 3 additional ports
- Integrated PoE++ switch

Unlike other readers, ***E3*** passes power **out** to additional PoE devices, **massively reducing cabling and installation costs**.

The reader is supplied as a flat/through-hole mount with a separate VESA 100mm studded bracket available (allowing mounting to a standard VESA mount).



Feature	How?	Benefits
Data integrity	EPIC tags are natively decoded. Fixes data corruption within the tags' memory.	**Never** see bad tag data. **Infinite** tag lifetime
Security	Bare metal coding for reader. No operating system to target. NIST 8259 Compliance report available.	Reduced attack opportunities for hacking or data theft.
Sensor support	Unique read algorithms provide accurate data from passive sensor tags.	Accurate reporting of moisture, composite resin curing etc.
Web service programming	RESTful support in addition to C#, Java, and SensThys automated reader operation (AutoSens)	Simple programming and fast time to market.
Connectivity	Two PoE ports to network other readers and devices	Elegant architecture minimizes installation costs and labor. No external GPIO box required.
	GPIO connection delivers 30W to peripherals	
	Power any PoE, PoE+ or PoE++ device	
Performance	+33 dBm transmit power, highest allowed in the market	Reliable read performance and faster results.
	Integrated antenna (9.0 dBic broadband) plus up to 3 additional antenna ports	
Operational Advantages	Built-in Ethernet switching and integrated PoE power distribution	Reduced cost and complexity due to fewer system components and cabling.
	"All-in-one" unit with additional ports for expansion capability	
Aesthetics	Neutral colored, Slim form-factor only 35mm/1.4" thick. Color and silk screening are optional.	Seamlessly blends into the office/store environment.

Specifications are subject to change without notice

Power and Interface Specifications

Parameter	Specification
Data Interface	TCP/IP (RJ-45), 4 ports
PoE Interface	3 ports; PoE++ Class 8 (90W input), PD on Port 0, PSE on Ports 1 and 2
Power Injector/Supply	PoE+ injector, PN SPOE90WC8;
GPIO	4 input/4 output, provides 24 vdc, 1.25A (30 W)
Software Support	APIs, DLL, sample code, ProSens Configurator, PhySens sensor support, **EPIC**
Power Consumption (33 dBm, Idle)	13W, 3W

RF Specifications

Parameter	FCC	ETSI
Reader Architecture	Impinj E710	
Reader Protocol	EPC Class 1 Gen 2v2 and 18000 – 6C/63	
Operating Frequency	902.75 MHz – 927.25 MHz	865.6 - 867.6 MHz
Hopping Channels	50	4
Channel Spacing	500 KHz	600KHz
Channel Dwell Time	< 0.4 seconds	
RF Transmitter Power	< +33 dBm	
Modulation Methods	PR-ASK, DB-ASK	
20 db Modulation Bandwidth	< 100 KHz	
Internal Antenna	9.0 dBic, right-hand circular, broadband 860 – 930 MHz	
External Antenna ports (SensArray Enterprise and Pro)	3 x RP -SMA connectors	

Physical and Environmental Specifications

Parameter	Specification
Dimensions	(cm) 25.4 x 25.4 x 3.5 • (in) 10 x 10 x 1.4
Weight	Approximately 0.9 kg (2 lbs)
Maximum Operating Temperature	50C, with proper heatsinking
Maximum Duty Cycle (30dBm) at Max Temperature	>25%
Operating Environment	-40 to 50C, non-condensing
Compliance Certifications	FCC Part 15; FCCID: In Progress, IEC 60950-1

Ordering Information

Model	Region	SKU	VESA Mounting
SensArray Enterprise 3 (E3)	Supports All Global Regions	**SAE3**	**VESA Mount Bracket Model #VESA**

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