Core

An EPIC Native Reader

SensThys®
Sense This World

The 4th generation *Core* is an **EPIC native** RAIN RFID **reader** incorporating an internal 8.5dBic **antenna**, 3 additional antenna ports (allowing **4 antenna systems**) and a **4 in/4-out 30W powered (optically isolated) GPIO** subsystem. These features combined into a svlete, attractive 10" x 10" form factor massively reduce infrastructure and installation costs.

Unique to this reader:
- Inherent security
- Native EPIC support
- Embedded passive sensor capability
- RESTful programming
- 4-in, 4-out powered GPIO
- Industry-leading 33 dBm power
- Integrated antenna with 3 additional ports

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). Variants for international regions are available.

EPIC™
Always Right
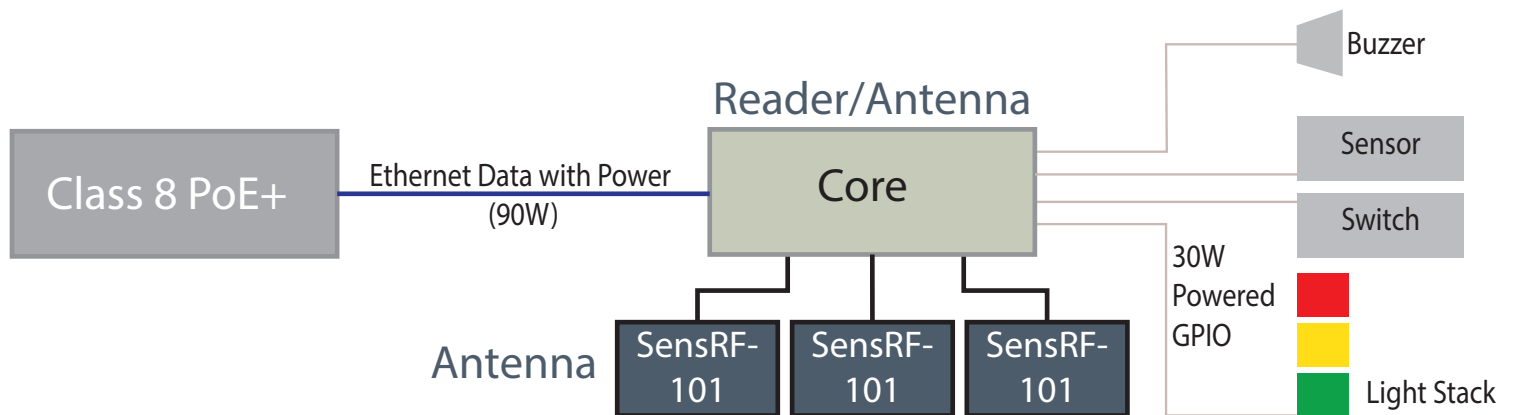
Benefit?	How?	What Does This Mean For Me?
Absolutely guarantee data	EPIC tags are natively decoded (level 2 and Level 4). Fixes data corrupted within the tags memory AND during transmission.	**Never** see bad data from your tags. **Infinite** tag lifetime
Inherently secure	Passed penetration testing with zero vulnerabilities. No operating system to target. NIST 8259 Compliance report available.	Reduced attack surface minimizing opportunities for hacking or data theft.
Full passive sensor support	Unique read algorithms provide more accurate data from passive sensor tags that report on physical status of materials.	Accurate reporting of temperature, 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.
Reader powered GPIO	GPIO delivers 30W to peripherals without external power sources. All power derived from 90W PoE+ input.	No external GPIO boxes or power sources. Saves cost/complexity.
Performance	+33 dBm transmit power, highest allowed in the market	Reliable read performance and faster results.
	Integrated antenna (8.5 dBic) plus up to 3 additional antenna ports	
Integrated antenna, GPIO, and reader	Highly integrated "all-in-one" unit.	Reduced cost and complexity..
Building and Community - friendly form factor	Neutral colored, Slim form-factor only 21mm/0.8" thick. Color and silk screening is customizable.	Seamlessly blends into the office/store environment.

Power and Data Specifications

Parameter	Specification
Data Interface	TCP/IP (RJ-45), 1 port
POE+ (Class 4-8)	PD on Port 0 (30W-90W input)
	PoE+ injector, PN SPOE29WC4
Software Support	APIs (C#, VB.NET, Java), DLL, sample code, RFID Console
Power Consumption (33dBm, Idle)	13W, 3W

RF Specifications

Parameter	FCC	ETSI
Reader Architecture	M-Power	
Reader Protocol	EPC Class 1 Gen 2v2 and 18000 – 6C/63	
Operating Frequency	902MHz – 928 MHz	865.6 - 867.6 MHz
Hopping Channels	50	4
Channel Spacing	500 KHz	600 KHz
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	8.5 dBic, right-hand circular	

Physical and Environmental Specifications

PARAMETER	Specification
Dimensions	(cm) 25.4 x 25.4 x 2.0 • (in) 10 x 10 x 0.8
Weight	Approximately 0.79 kg (1.73 lbs)
Operating Temperature	0C to +50C (for 20% average duty cycle)
Maximum Duty Cycle (30dBm)	50% at 35C, 30% at 45C, 20% at 50C
Operating Environment	0 to 50C, non-condensing
Compliance Certifications	FCC Part 15; FCCID: 2ANPR-M-PWRSENS; IEC 60950-1
	Safety tested to unified 60950-1 (CB Report)

Specifications are subject to change without notice.

ORDERING INFORMATION

Model	Region	Flat Mount SKU	VESA Mounting
SensArray-Core	North America	SO21330-FR	
	Europe	SO21330-ER	Add VESA Mount Bracket Model # SAA1
	Other regions available		

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