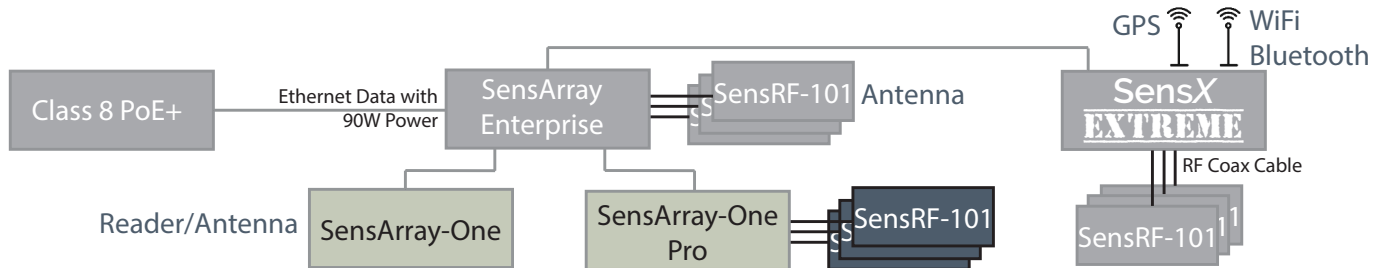


SensArray® One Series



The SensArray® One Series combines one of the strongest, fastest UHF passive RFID readers with an integrated 8.5dBic antenna in a svelte, attractive 10" x 10" form-factor. The reader operates at a full industry maximum of +33dBm via the 90W Class 8 PoE input, so no separate DC power input is required.

The SensArray-One is ideal for tag commissioning or other low-cost applications. The SensArray-One Pro adds 24V 30W capable GPIO and SMA ports for a 4 antenna solution.



Benefit?	How?	What Does This Mean for Me?
Uncompromising Performance	33dBm power RFID subsystem (2x power that of a 30dBm system) Optimized RFID core - extreme tag read-rates / time to last tag	See all tags! Uncompromising read distance and read-rates!
Minimizes Installation Cost	Integrated 8.5dBic antenna	Less infrastructure to purchase and install. No performance compromises even with PoE power.
	Integrated 90W power distribution system	
	Off-the-shelf cabling (CAT5/6) provides both power and data	
Minimizes Hardware Cost	Low cost per read point	Fewer antenna to purchase and less complex GPIO powering. Smaller hardware bills.
	Integrated antenna, reader and RF distribution network	
	PoE powered 24V GPIO with 30W drive capability	
Easily Add Peripherals	PoE+ powered SensArray-One Pro can power GPIO peripherals	Power peripherals from the reader.
Inconspicuous and Blends In	Slim form-factor only 21mm/0.8" thick	Can use in commercial buildings.
Upgradeable	Swap between any other SensArray or SensX product.	Flexibility to grow or fix initial assumption mistakes (same software).

TWO (OR MORE) VARIANTS TO SELECT FROM

The SensArray-One family comes in the base SensArray-One product or the step-up SensArray-One Pro. Both units have a 90W Class-8 PoE input and the SensArray-One Pro adds 30W powered GPIO (power from the 90W input PoE), and adds three antenna connections.

Name	PoE	Ethernet Ports	GPIO	Antenna Ports	RFID Power
SensArray-One	Class 8 - 90W	1	No	No	100% power for internal antenna
SensArray-One Pro	Class 8 - 90W	1	Yes (4 in, 4 out) 30W	3 x RP-SMA	33dBm

For more features and power/data routing, please explore the SensArray-Pro and SensArray-Enterprise.

Power and Data Specifications

Parameter	Specification
Data Interface	TCP/IP (RJ-45), 1 port
POE+ (Class 8)	PD on Port 0 (90W input) PoE+ injector, PN SPOE2gWC4
Software Support	APIs (C#, VB.NET, Java), DLL, sample code, RFID Console
Power Consumption (33dBm, Idle)	(TBD)W, 3W
GPIO (SensArray-One Pro)	4 input, 4 output, provides 24 VDC, 1.25A (30W)

RF Specifications

Parameter	FCC	ETSI
Reader Architecture	Impinj R2000 Platform	
Reader Protocol	EPC Class 1 Gen 2 and 18000 – 6C	
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	One-Pro	< 33 dBm
	One	< 31.5 dBm
Modulation Methods	PR-ASK, DB-ASK	
20 db Modulation Bandwidth	< 100 KHz	
Internal Antenna	8.5 dBic, right-hand circular	
External antenna ports (SensArray One-Pro only)	3x RP-SMA connectors	

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: TBD
	IC: TBD
	ETSI: TBD
	Safety tested to unified 60950-1 (CB Report)

Specifications are subject to change without notice.

ORDERING INFORMATION - Order at <https://www.sensthys.com/shop/>

Model	Region	Flat Mounting	VESA Mounting
SensArray-One	North America	SO21000-RFF	Add VESA Mount Bracket Model # SAA1
SensArray-One Pro	North America	SO21330-RFF	
SensArray-One	Europe	SO21000-REF	
SensArray-One Pro	Europe	SO21330-REF	

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