

## Out of the box Smartness

Nordic ID Sampo S2 One Series is a powerful fixed UHF RFID reader with multiple connectivity options. This versatile reader offers both EU and US frequencies in one reader and is suitable for multiple use cases e.g. in POS and various gate options. Its integrated computer enables installation and operation of 3rd party applications. Nordic ID Sampo S2 One Series is equipped with the new Nordic ID NUR2-1W module.



UHF RFID	
Supported standard	ISO 18000-63 (EPC Class 1 Gen 2)
Frequency band	ETSI 865.6–867.6 MHz and FCC/IC 902–928 MHz
Regulatory	CE ETSI EN 302 208, CE ETSI EN 301 489, FCC part 15.247 IC RSS-210, Safety IEC 60950-1
Max receive sensitivity	-81 dBm
Typical reading speed	Up to 1000 tags/s
Radiated power	Integrated antenna in normal mode: 33 dBm (2 W) ERP / 3.3 W EIRP Integrated antenna in low gain mode down to: 4 dBm (2.5 mW) ERP / 4 mW EIRP
Integrated antenna features	Wide band antenna which covers ETSI and FCC/IC frequency bands, 8 dBic circular polarized, Beam width 80°, Nominal reading distance 10 m / 33 ft
Conducted power for external antenna ports	30 dBm (1 W)
External antenna port	3 pcs. 50 Ω / SMA Female
Isolation between external antenna ports	35 dBm / typical
PLATFORM	
CPU	1.2 GHz 64-bit Quad-Core Cortex-A53 processor
Operating system	Debian based embedded Linux
Memory	1 GB RAM 4 GB flash
USER INTERFACE	
SIM	Mini-SIM
Indicators	4 pcs (programmable) LEDs Buzzer for sound indications, Capacitive sensor for triggering reading
CONNECTIVITY	
GPIO	4 inputs, opto isolated, max. 24 V 4 outputs, opto isolated, max. 50 mA
Wireless WAN (optional)	3G HSPA (B1, B2, B5, B6, B8 and B19) 2G GPRS / EDGE (850, 900, 1800 and 1900 MHz)
LAN	Ethernet 10/100 Mbit
Wireless LAN (optional)	IEEE 802.11 a/b/g/n, works as an WLAN access point for other Nordic ID readers Dual band WLAN, supports 2.4 GHz and 5 GHz networks
USB	USB host, type A USB device, type B, USB HID class supported

### HIGHLIGHTS

- Powerful UHF RFID long-range reading performance
- Integrated Nordic ID NUR2-1W module for increased performance and reading speeds
- Integrated Linux based computer for versatile SW possibilities/development
- Versatile host and device connectivity options
- Avoid cross readings due to high isolation between antenna ports
- One device for EU or US frequency environments

### SERVICES AND SUPPORT

- Free support during and after 2-year warranty time
- Maintenance service and extended maintenance contract
- Software customization and development support
- Technology, product and integration training
- Technology and project consultation
- Project management services

### SUPPORTED OPERATING SYSTEMS

- Compatible with Nordic ID Radea

### WARRANTY

- 2 year warranty
- Free technical support during and after 2 year warranty



POWER	
External Power Supply	PoE 802.3af or AC/DC adapter: input 100-240 VAC, 1 A, 50-60 Hz / output 24 VDC, 1.25 A
Operating Power	12 W PoE, 20 W DC Note! Wireless LAN and WAN disabled in PoE use
SIZE AND WEIGHT	
Dimensions	(W) 200 x (L) 260 x (H) 36 mm / (W) 7.9 x (L) 10.2 x (H) 1.4 inch
Weight	810 g / 28.6 oz
ENVIRONMENT	
Environmental sealing	IP20, for indoor use only
Inbox content	Nordic ID Sampo S2 One-series and installation kit (power supply not included)
Operating Temperature	-20 to 55 °C (-4 to 130 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Mounting	VESA 75/100 Compatible
SOFTWARE INTERFACE	
Data management	Nordic ID Radea
Device management	Nordic ID Radea
Firmware update	Via Web management UI and the RESTful service
Management interface	Web management UI and SSH for developers
IP Address configuration	IPv4/IPv6 DHCP or Static IP
API support	NUR API for RFID and RESTful service to access reader configuration
Other protocols	LLRP
Software development	Ready-to-use Nordic ID NUR API that provides full control over the reader Application can be written with modern programming languages Compatible with existing Nordic ID fixed readers



EU DIRECTIVE  
2002/96/EC ON WASTE  
ELECTRICAL AND  
ELECTRONIC  
EQUIPMENT (WEEE)

Nordic ID reserves the right to make changes to the information on this data sheet without prior notification. Availability of product variants may vary regionally. Please contact a Nordic ID representative for clarification on specifications and variants.