Out of the box Smartness

Nordic ID Sampo S2 is a versatile fixed UHF RFID reader with an integrated antenna with software controllable gain.
This reader offers both EU and US frequencies in one device and multiple connectivity options.
This versatile RFID reader and writer 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.

UHF RFID	WLAN	Ethernet	USB	3G	PoE/	LED indicators	Linux	Buzzer

UHF RFID

Supported standard	ISO 18000-63 (EPC Class 1 Gen2 V2) AES authentication in accordance with ISO/IEC 29167-10 supported
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 62368-1:2019 ed. 3
Typical reading speed	200 tags/s in DRM mode
Radiated power (integrated antenna)	Maximum (aka normal gain mode): 30dBm (1 W) ERP / 1.6 W EIRP Minimum (aka low gain mode): 1dBm (1.3mW) ERP / 2mW 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 5 m / 16 ft
Conducted power for external antenna ports	27 dBm (500mW)
External antenna port	3 pcs. 50 Ω / SMA Female
Isolation between external antenna ports	35 dB / typical

PLATFORM

CPU	1.2GHz 64-bit Quad-Core Cortex-A53 processor
Operating system	Debian based embedded Linux
Memory	1 GB RAM 4 GB flash

USER INTERFACE

USB	USB host, type A USB device, type B, USB HID class supported
SIM	Mini-SIM
Indicators	4 pcs (programmable) LEDs Buzzer for sound indications, Capacitive sensor for triggering reading

HIGHLIGHTS

- Effective fixed UHF RFID reader for a multitude of use cases
- SW controllable tx power for low and normal gain functionalities
- Integrated Linux based computer for versatile SW possibilities/development
- Versatility, one device for usage in EU or US frequency environments
- Versatile host and device connectivity options
- Avoid cross readings due to high isolation between antenna ports

SERVICES AND SUPPORT

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

WARRANTY

- 2 year warranty
- Extendable up to 5 years

RAIN
R F I D

CONNECTIVITY

GPIO	4 inputs, opto isolated, max. 24V 4 outputs, opto isolated, max. 50mA
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

POWER

External Power Supply	PoE 802.3af or AC/DC adapter: input 100-240 VAC, 1A, 50-60 Hz / output 24 VDC, 1.25A
Operating Power	12W PoE, 20 W DC Note! Wireless LAN and WAN disabled in PoE use

SIZE AND WEIGHT

Dimensions	(W) 200 x (L) 260 x (H) 25 mm ((W) 7.9 x (L) 10.2 x (H) 1.0 inch)
Weight	530g / 18.7 oz

ENVIRONMENT

Environmental sealing	IP20, for indoor use only
Inbox content	Nordic ID Sampo S2 and installation screws (power supply not included)
Operating Temperature	-20 to 55 °C (-4 to 130 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)

SOFTWARE INTERFACE

Data management	Nordic ID Radea
Device management	Nordic ID Radea, SOTI®
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)

*C/C++, Java, C#, Python and Javascript with Nodejs

All information is subject to change without prior notice. Availability of product variants may vary regionally.