

Out of the box Smartness

Nordic ID Sampo S2 is a versatile fixed UHF RFID reader with SW controllable low and normal gain functionalities. This reader offers both EU and US frequencies in one reader and multiple connectivity options.

This versatile reader is suitable for multiple use cases e.g. in POS and various gate options. It's integrated computer enables installation and operation of 3rd party applications.



UHF RFID	
Supported standard	ISO 18000-63 (EPC Class 1 Gen2 V2)
Frequency band	AES authentication in accordance with ISO/IEC 29167-10 supported
Regulatory	ETSI 865.6–867.6 MHz and FCC/IC 902–928 MHz
Typical reading speed	CE ETSI EN 302 208, CE ETSI EN 301 489, FCC part 15.247 IC RSS-210, Safety IEC 60950-1
Radiated power	200 tags/s in DRM mode
Integrated antenna features	Integrated antenna in normal mode: 30dBm (1 W) ERP / 1.6 W EIRP Integrated antenna in low gain mode down to: 1dBm (1.3mW) ERP / 2.0mW EIRP
Conducted power for external antenna ports	Wide band antenna which covers ETSI and FCC/IC frequency bands Integrated antenna in normal mode: 8 dBic circular polarized, Beam width 80°, Nominal reading distance 5 m / 16 ft Integrated antenna in low gain mode: -2 dBic circular polarized, Beam width 80°, Nominal reading distance 1.5 m / 5 ft
External antenna port	27 dBm (500mW)
Isolation between external antenna ports	3 pcs. 50 Ω / SMA Female
	35 dBm / 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 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 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



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 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)
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
Development tools	GBD and ptvsd
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



*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.