DENSO

UHF band RF tag high-power handy scanner

NEW SP1

Scanning speed[1] 700 scans/second

Scanning distance[2] Approx. 8 m

For world-class[3] inventory-taking

Easy connection to smart devices. Supports Android™/iOS (MFi certified).

[1]: Scanning speed is a reference value and varies depending on the actual operating environment. [2]: Scanning distance is a reference value and varies depending on the actual operating environment. Communication distance varies depending on the actual tags. Evaluation is based on the Avery Dennison AD-229r6. [3]: According to Denso Wave data as of September 2018. Setting restrictions may apply for certain countries and functions.

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NEW UHF band RF tag high-power handy scanner **SP1**

Smartphone   BHT-1800   Tablet
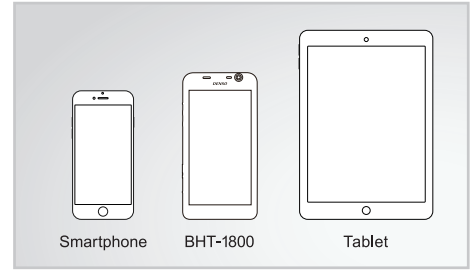
World-leading* scanning performance

Features our proprietary antenna that switches automatically between horizontal and vertical polarization. Achieves outstanding scanning speeds of 700 scans/second and scanning distance of up to approximately 8 m. Scans tags even when not all facing in the same direction. Dramatically improves working efficiency, enabling inventory jobs to be completed rapidly. ※According to Denso Wave data as of September 2018.

Simple setup for easy transition between tasks

Easily connected by scanning QR Code® on SP1 unit with the device connected. Devices can be quickly paired using Bluetooth®, for easy transition between tasks. Even if the pairing is disconnected during work, the scanner includes automatic re-connection function and backup memory. The scanned data temporarily saved will be transmitted when the scanner is re-connected.
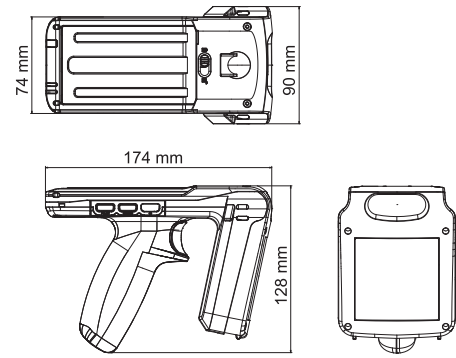
RFID using any smart device

Supports both Android™ and iOS (MFi certified). All you need is a smartphone or tablet for RFID.

- Global support available in over 40 countries worldwide.
- High-quality product made in Japan.

Specifications

			SP1-QUBi
Model			SP1-QUBi
Scanning unit	RFID functions	Supported RF tags	ISO/IEC 18000-63 Type C (EPCglobal Class 1 Gen 2) compatible tags
		Frequency	916.8 to 920.8 MHz
		Channel separation/Number of channels	200 kHz/6 ch
		Transmission output	Up to 1 W
		Modulation	PR-ASK
		Scanning speed *1	700 scans/second
		Scanning distance *2	Approx. 8 m
		Output adjustment	10 dBm to 30 dBm
	Scanner functions	Type	Area sensor
		Readable codes — 2D Codes	QR Code, Micro QR Code, SQRC, PDF417, Micro PDF417, MaxiCode, DataMatrix (ECC200), GS1 DataBar Composite (EAN. UCC Composite)
		Readable codes — 1D Codes	EAN-13/-8 (JAN-13/-8), UPC-A/-E, UPC/EAN (with add-on), Interleaved 2 of 5, CODABAR (NW-7), CODE39, CODE93, CODE128, GS1-128 (EAN-128), GS1 DataBar (RSS)
		Minimum resolution — 2D Codes	0.167 mm
		Minimum resolution — 1D Codes	0.125 mm
		PCS value	0.3 or greater
		Elevation/tilt angle	±50°
		Scan confirmation	Blue/red 2-color LED, buzzer
Transmitter unit	Bluetooth®		Bluetooth Ver. 2.1 + EDR Standard Class 2
	Profile		SPP
	Cradle		USB
Power supply	Main battery		Lithium-ion battery
	Operating time *3	Standard battery	Approx. 3 hours
		High-capacity battery	Approx. 6 hours
Internal memory			80,000 RFID tags, 1,000 barcodes
Environmental performance	Operating temperature *4		-20 °C to + 55 °C
	Protection class		IP54
	Drop-resistant strength *5		30 drops from 1.2 m onto concrete (5 times on each of 6 faces), 1.5 m
EMC standard			VCCI ClassA
Weight			Approx. 400 g (with standard battery); approx. 450 g (with high-capacity battery)

※1: Scanning speed is a reference value and varies depending on the actual operating environment. ※2: Scanning distance is a reference value and varies depending on the actual operating environment. Communication distance varies depending on the actual tags. Evaluations are based on the Avery Dennison AD-229r6. ※3: Reference values using Denso Wave conditions at room temperature. May vary depending on the actual operating conditions. ※4: 0 °C to +40 °C for charging. Operation between -10 °C and -20 °C possible only using high-capacity battery. Operating restrictions apply between -10 °C and -20 °C and between 40 °C and 55 °C. ※5: Test figures at room temperature. Do not constitute guaranteed values.

Dimensions

74 mm   90 mm   174 mm   128 mm

Main unit set contents

- Main unit
- Hand strap
- Operating guide

Software

Development/kitting/operating tools
- Google Android™ Studio
- Microsoft Visual Studio 2017
- Android™ OS application development support kit (SDK)※

※Can be downloaded free of charge from Denso Wave website (Qbdirect).

Product configuration

[Main unit set]
SP1-QUBi

[Battery]
BT-SP1LA-C
(Standard lithium-ion battery + battery cover)

BT-SP1L-C
(High-capacity lithium-ion battery + battery cover)

[Communication unit]
CU-SP1A (USB)

Optional items

Model	Communication unit CU-SP1A	4-unit battery charger*1 CH-1804	4-unit main unit charger*2 CH-SP1L4	SP1 direct cable CBSP-US2000/4	BHT1800 charging cable*3 CBBHTUS500/C18-4A
Communication unit	USB2.1 Full Speed compatible	—	—	USB2.1 Full Speed compatible	—
Charging unit — Charging time — Main unit charging	3.5/7 hours	—	3.5/7 hours	—	Depends on the connected supply current.
Charging unit — Charging time — Battery cartridge	4/8 hours	4/8 hours	—	—	—
Dimensions	158 x 110 x 85 mm	TBD	141 x 464 x 90 mm	2 m	50 cm
Power supply	AC adapter	AC adapter	AC adapter	Supply from connected device	Supply from connected device

Attachments	For BHT1800	For self-modification
	EA-SP1-A1800	EA-SP1-AS

Other	Waist case	Shoulder strap *4
	WH-SP1	SBSP1

※1: For use with both standard/high-capacity batteries. ※2: Does not include smart device charging function. ※3: Does not support USB interface. ※4: Attachments cannot be attached/detached from SP1 with shoulder strap attached.