



Empowering Connectivity

Vietnamese RFID Innovator & Manufacturer

Transforming Industries with Intelligent



Company Profile & Products

About Nextwaves

Nextwaves is a pioneer in antenna research, development, and manufacturing in Vietnam, driven by its mastery of wave transmission technology.

We specialize in developing a wide range of antennas, including far field, near field, spiral, patch, and directional antennas, to meet the growing demands of the RFID market. Using advanced electromagnetic simulation technology, our engineering team can optimize antenna structures for specific deployment environments - from narrow spaces like library shelves to industrial areas with high metal content and electromagnetic interference.

The entire antenna design and production process is handled in-house, covering PCB layout, substrate selection, hardware fabrication, and performance testing such as VSWR, gain, and radiation pattern. This ensures strict quality control over each prototype and shortens the design adjustment cycle. Nextwaves also develops custom antennas tailored to real-world applications, such as accurate reading zone limitation, shelf-level reading segmentation by height, and direction-sensitive tag detection.

MISSION

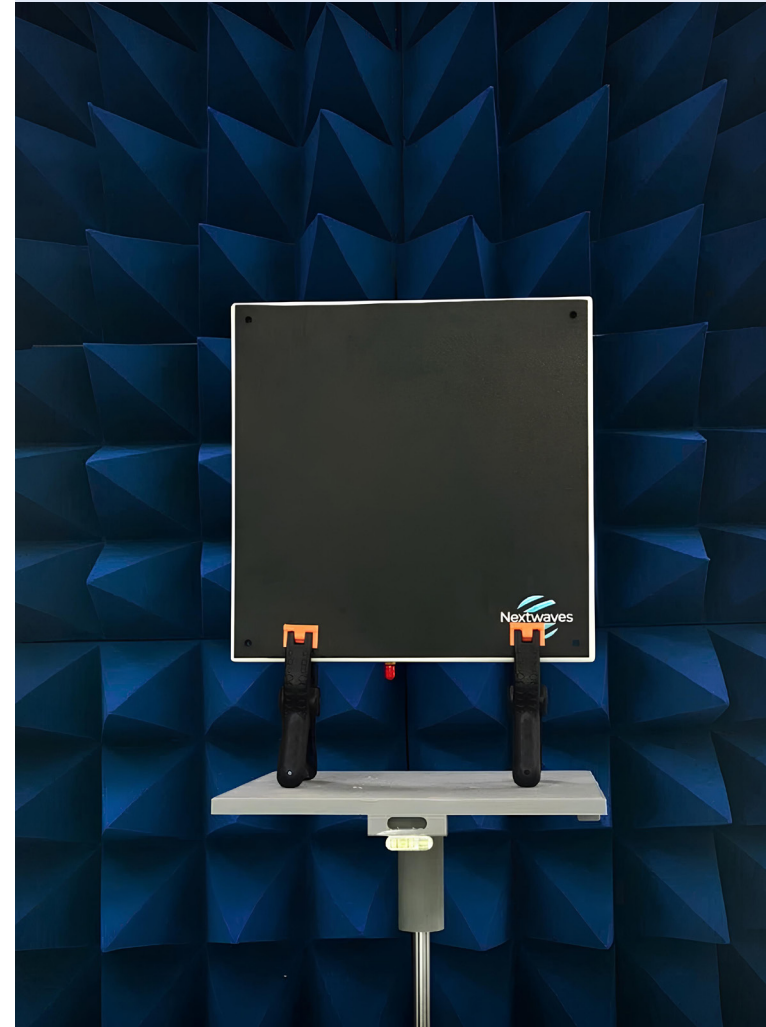
Creating a “Make in Vietnam” RFID Innovation Ecosystem

Nextwaves is committed to delivering end-to-end RFID solutions powered by Vietnamese expertise - from antenna design and hardware to integrated software. We bring RFID into retail, logistics, manufacturing, healthcare, and education to boost efficiency, cut costs, and modernize operations.

VISION

Expanding across the region with advanced technologies developed in Vietnam

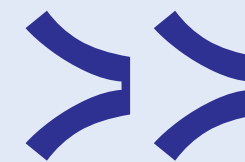
Nextwaves aims to build a solid core technology foundation, constantly innovating and improving product quality to meet the strict demands of the market. We focus on expanding the RFID application network across various sectors, from goods management and traceability to production automation, with the goal of establishing a Vietnamese technology brand in the Southeast Asian and global markets.



R&D, Design, Development, and Manufacturing.

As a high-tech enterprise in Vietnam, we specialize in wave transmission, antenna design, and integrated RFID solutions, aiming to master the entire value chain - from research and design to production and deployment. Vietnam's RFID market heavily relies on imported devices and antennas that are expensive, difficult to customize, and lack local technical support. The supporting ecosystem in this market includes RF labs, supply chains, and skilled engineers that remain underdeveloped. Despite challenges in this “high-tech, niche” field, our USP has built and consolidated: We independently design antennas based on electromagnetic principles, using advanced simulation tools and conducting experiments in internationally certified testing chambers. Solutions are customized for each specific application from near-field RFID in libraries to complex 5G beamforming systems, anti-interference antennas for industrial environments, and antennas

with integrated active circuits. By developing both hardware and software in parallel, we offer not just devices, but complete, scalable solutions that integrate seamlessly with existing systems. In addition to supplying RFID products for the domestic market, Nextwaves is also developing telecom-grade antennas (LTE, Wi-Fi, 5G) for export. We are investing in R&D for next-generation technologies such as reconfigurable antennas and AI-powered antennas capable of optimizing radiation patterns in real time based on the surrounding environment.



Nextwaves Industries

From Vietnam to Global

Achievements

Since 2023, Nextwaves has been showcasing Vietnamese ingenuity in over 12 countries.

Shortly after its founding, Nextwaves Industries demonstrated rapid expansion through a series of projects implemented across Vietnam from Hanoi, Ho Chi Minh City, and Da Nang to major industrial zones in Bac Ninh, Binh Duong, and Dong Nai. Thanks to its quick response and deep technical solutions, Nextwaves quickly became a trusted partner for businesses in fashion retail, logistics, electronics manufacturing, healthcare, and education. Driven by proven results in real-world

projects, Nextwaves has expanded its customer base internationally through OEM collaborations and system consulting for partners in the U.S., Canada, Germany, and Australia. The fact that clients from developed markets actively seek out a Vietnamese tech company is clear proof of Nextwaves' true capabilities and the unique value it brings especially in fast-changing technology demands that many foreign providers struggle to fulfill.



Customizable

Nextwaves is among the rare global providers that design antennas tailored to real customer needs instead of selling generic products.



Reliable

Each our product is thoroughly tested to ensure reliable, long-term performance in even the most demanding conditions, around the clock.



Scalable

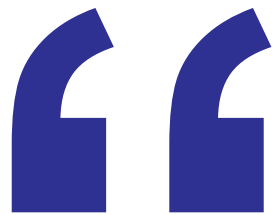
Nextwaves allows flexible expansion of antennas, readers, and coverage areas while maintaining stable performance - making it suitable for businesses of all sizes.

From Vietnam to the World

Nextwaves has outperformed numerous competitors to earn customer trust in the world's most demanding markets.



A message



We not only transmit signals but also transmit trust through sustainable technology that helps build a strong tech industry, empowering Vietnam to enhance its global



In today's era, wave transmission technology and the Internet of Things (IoT) are standing at the threshold of a tremendous opportunity to transform the world, like how the Internet changed the way we communicate and connect in the 1990s. These are not only merely technologies but also the foundation of a new era where everything is connected, and where humans and systems can interact and communicate intelligently and automatically.

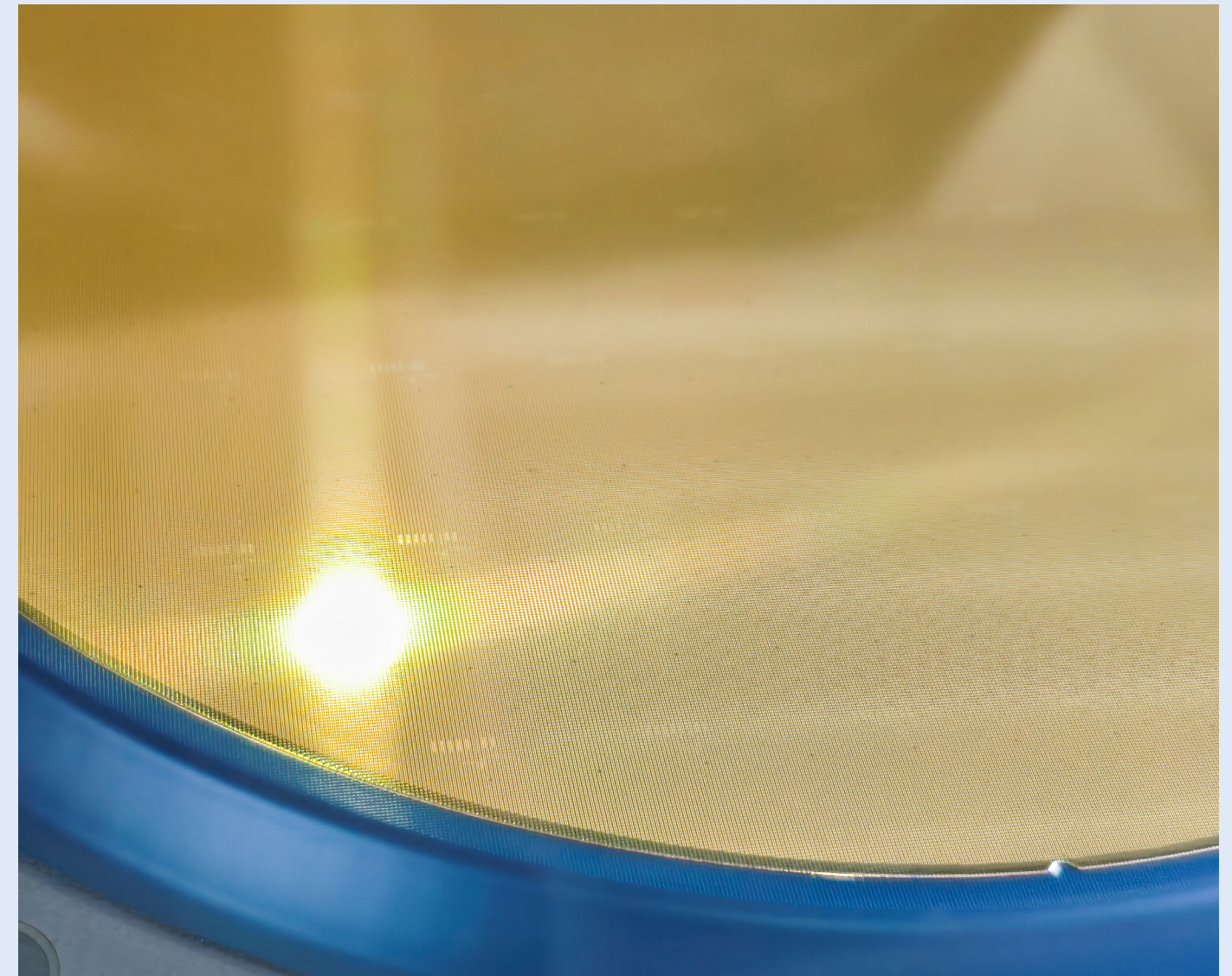
The mission of Nextwaves Industries is not only to develop deep technology, but to lead the transformation. We believe that for Vietnam to thrive in the digital era, we must build a foundation of technological self-reliance from chips to wave transmission devices to reduce dependence on foreign technologies. We are committed not only to creating products and solutions, but also to driving breakthroughs that open new opportunities across all sectors of society.

With RFID technology, we see a great mission in transforming operations and optimizing key industries such as logistics, retail, and supply chains. Nextwaves Industries aims not only to improve processes, but also to build systems that help businesses manage and optimize resources, minimize risks, and enhance control.

We are committed to continuously striving toward a future of digital independence and prosperity for Vietnam, where technology becomes a powerful tool to strengthen the nation's position on the global stage, drive sustainable development, and deliver long-term benefits to the community.

Best regards,

Nextwaves Industries



20

Talent Engineers

A team of 20 skilled engineers, dedicated to designing optimized antennas and wave systems for real-world needs.

50+

Antenna Products

Over 50 antenna models developed, from RFID to customized 4G, 5G, and beamforming solutions.

20+

Patents & Researchs

Nextwaves & partners holds 20+ publications and patents in wave transmission and antenna design, showcasing strong core technology.

PRODUCTS AND SERVICES



R&D

Nextwaves provides tailored R&D solutions in wave transmission, addressing customer-specific needs such as optimizing the number of antennas in a given area or integrating antennas into items like rings, cards, and necklaces.



RFID Products

Nextwaves offers a complete range of UHF RFID solutions, including antennas, inlay tags, readers, and software, enabling customers to build fully integrated systems with optimized cost and efficiency.



Software Solutions

Nextwaves offers outsourcing solutions and system implementation services for businesses, including ERP, CMS, CRM, and customized software based on client requirements.



Antenna Manufacturing

Nextwaves offers a diverse range of antennas, from telecom antennas supporting BTS network connectivity and positioning antennas for radar, to shortwave antennas for satellites and RFID antennas for logistics and IoT applications.

Nextwaves operates a high-speed, high-precision flip-chip inlay production line with CCD quality control and R&D support.



Nextwaves Industries - Core Products

RFID Antenna

Nextwaves offers a complete range of UHF RFID solutions, including antennas, inlay tags, readers, and software, enabling customers to build fully integrated systems with optimized cost and efficiency.

RFID Readers

Supporting EPC Class 1 Gen 2 protocol, our readers offer reading distances up to 50 cm. Output RF power can be adjusted, and multiple antenna port options are available, making the readers suitable for various RFID setups from test labs to production lines.

RFID Tags & Inlays

Our UHF RFID tags and inlays offer reliable tracking solutions in various form factors - wet inlays, dry inlays, and finished tags. With high-performance IC chips and optimized antennas, they work effectively on different surfaces for asset tracking and inventory management.

RF Switching Modules

Designed for RFID and wireless systems, our RF modules support a wide frequency range (50–3000 MHz) with low insertion loss (0.5 dB) and high isolation (≥ 25 dB). Each unit is built with a compact aluminum enclosure, ideal for embedded or OEM applications.

Enhancing Customer Experience with self-checkout

Nextwaves delivers the future of retail with instant item detection technology simply place your items in the checkout zone and watch as every product is automatically identified in seconds, just like leading retailers.



Our advanced UHF RFID self-checkout kiosks eliminate the frustration of traditional barcode scanning. Customers no longer need to search for barcodes, scan items one by one, or deal with "unexpected item in bagging area" errors. Instead, they simply place all their items whether it's 1 or 20 products into the designated checkout zone, and our system instantly reads all RFID tags simultaneously, displaying the complete shopping list on screen within 2-3 seconds. The technology goes beyond just item detection. When combined with Nextwaves' Royal Loyalty System, the kiosk automatically recognizes customers through their RFID membership cards, applies personalized discounts, accumulates loyalty points, and processes payment all in under 30 seconds for an entire basket of goods. This represents a 90% reduction in checkout time compared to traditional self-scanning systems.

Instant Basket Recognition

Nextwaves' RFID readers and antenna arrays create a precise detection zone that accurately identifies all tagged merchandise placed within it. Our system can read hundreds of items simultaneously, automatically filtering out items from neighboring stations, and providing 99.9% accuracy in item detection even with metallic products or liquid-filled containers.



Smart Athlete Tracking Solution

Manage thousands of athletes with Ease – No Misses – No Delays

In large-scale running events, from 5-kilometer street races to full 42-kilometer marathons, the need to accurately track each athlete's journey in real time has become extremely important. This is not only crucial for organizers to manage race logistics and ensure safety, but also allows each runner to monitor their own pace, see how far they have run, how long it takes to reach each checkpoint, and adjust their strategy according to their stamina. With Nextwaves' RFID solution, the entire journey is recorded automatically, continuously, and without interruption. Each athlete simply wears an ultra-light RFID tag attached to their bib or wristband. From the starting line to the finish, the system automatically records their personal EPC code at key locations such as checkpoints, water stations, turnaround points, and the finish line. No need for barcode scanning or stopping – all data is captured instantly as the runner passes RFID antennas, saving time and avoiding congestion.

The central software system processes and displays each athlete's journey in real time, including average speed, segment timing, and arrival time at each station. After the race, athletes can review their entire run on a digital map along with a pace chart by kilometer, making it easy to assess performance, identify strengths and weaknesses, and improve for future events. For organizers, monitoring the number of participants in each area helps optimize the allocation of water stations, medical support, and security. It also enables quick detection of unusual cases such as missed checkpoints or off-route participants. If post-race analysis is needed, all data is precisely recorded down to the millisecond and can be exported for in-depth reporting.



Automated inventory with RFID

Empower staff with "superpowers" to streamline operations, reduce losses, and drive business growth.

Currently, most businesses in Vietnam still manage their warehouses manually, using handwritten notes, Excel spreadsheets, or relying entirely on staff to scan QR codes. However, as warehouse operations scale up, these methods reveal significant limitations. Inventory checks are time-consuming, prone to errors, and unable to closely monitor stock movements. Losses and inventory discrepancies are often discovered too late, after the damage has been done. Typically, businesses need one to two days to complete a full inventory count, which is only done weekly or monthly. For industries with large product volumes and frequent stock movements such as retail, fashion, or electronics, regular stocktaking becomes nearly impossible. This leads to inaccurate inventory data, directly affecting ordering, supply planning, and cash flow management.

Nextwaves' UHF RFID solution helps businesses eliminate manual inventory barriers. Each product is tagged with an EPC identifier, allowing staff to scan multiple items at once using handheld or fixed readers, without direct contact or opening boxes. With only two staff members, a 2,500 square meter warehouse can be inventoried in just one to two hours. Data is updated instantly with high accuracy, enabling real-time management and early detection of discrepancies.

Nextwaves not only provides technology solutions but also supports businesses with implementation, training, and system integration into existing operations. This ensures a comprehensive, smooth, and sustainable digital transformation of warehouse management.

The UHF RFID product line from Nextwaves



Automated Library Management with RFID

Equip librarians with intelligent tools to streamline book tracking, prevent errors, and deliver an exceptional library experience.

Currently, many libraries in Vietnam still manage their collections manually, relying on paper logs, barcode scanners, or outdated Excel files. These methods are increasingly inadequate as library collections grow in size and complexity. Manual book check-ins, checkouts, and shelf audits are time-consuming, error-prone, and lack real-time visibility. Missing books or misfiled materials often go undetected until a user reports a problem, delaying service and reducing trust.

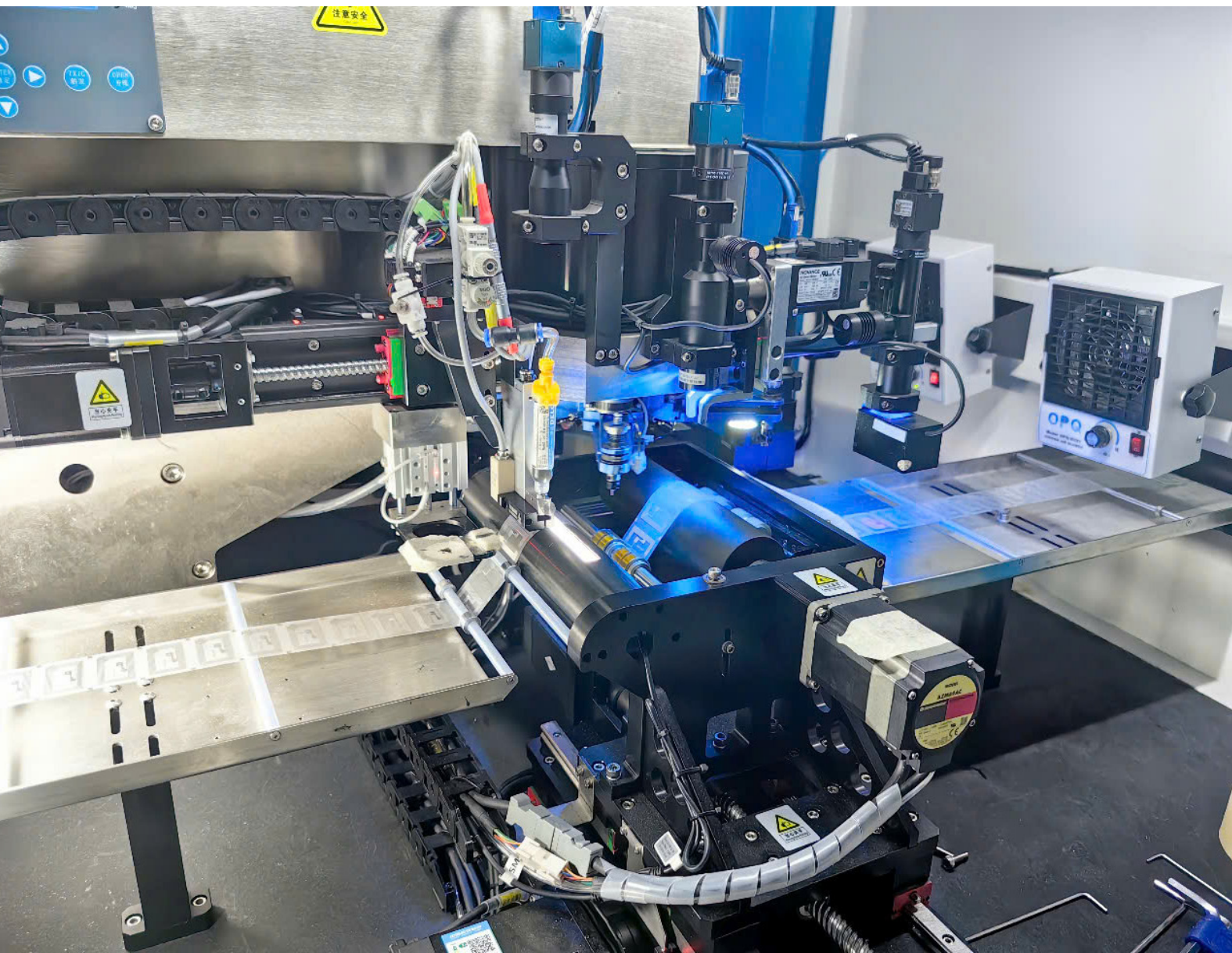
With traditional systems, staff must spend hours scanning individual barcodes or performing physical inventory counts. In large academic or public libraries, a full inventory might take weeks and require closing sections of the library, an unsustainable burden on both

staff and patrons. Nextwaves' UHF RFID library solution revolutionizes this process. Each book is tagged with a unique RFID identifier, enabling fast, contactless tracking through handheld or fixed RFID readers. Staff can scan hundreds of books within seconds, without opening covers or accessing tight shelves. Real-time updates ensure immediate detection of missing or misplaced items.

With just one or two staff members, a 50,000-book library can be inventoried in a single afternoon. Readers at checkout counters, security gates, and shelf audit stations work seamlessly together to manage circulation, monitor losses, and maintain accurate catalog records.

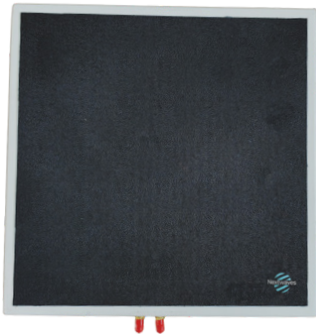


HARDWARE PRODUCTS



RFID ANTENNA

RFID Dual Near-Field ©
Model | Specification



SKU	Frequency range (GHz)	Gain (dBic)	Dimensions [WxLxH](mm)	Connector	Cover
RA-U-SFN2-252501	0.86- 0.92	9	250x250x15	Dual SMA Female	ABS, Aluminum

RFID Antenna CP242401 Rugged
Model | Specification

IP67 waterproof & dustproof



SKU	Frequency range (GHz)	VSWR	Axial Ratio (dB)	Gain (dBic)	Pol.	Dimensions [WxLxH](mm)	Connector	Cover
RA-UC-NFF-242401	0.9 - 0.93	≤1.5	2	9	Circular	240x240x20	N-type Female	ABS, Aluminum

RFID Wideband Antenna Rugged
Model | Specification

IP67 waterproof & dustproof



SKU	Frequency range (GHz)	VSWR	Axial Ratio, Typ. (dB)	Max Gain (dBic)	Pol.	Dimensions [WxLxH](mm)	Connector	Cover
RA-WC-NFN-141401	0.86 - 0.94	≤1.7	2	5	Circular	140x140x27	N-type Female	ABS, Aluminum

RFID Slim LP12040

Model | Specification



SKU	Frequency range (GHz)	VSWR	Gain, Typ (dBic)	Power max (W)	Pol.	Dimensions [WxLxH](mm)	Connector	Cover
RA-UL-SFF-1204001	0.9-0.93 (US Band)	≤2	17	10	Linear	1218x428x12.5	SMA Female	ABS

RFID Slim CP12048

Model | Specification



SKU	Frequency range (GHz)	VSWR	Axial Ratio (Typ) (dB)	Gain (dBic)	Power max (W)	Pol.	Dimensions [WxLxH](mm)	Connector	Cover
RA-UC-SFF-1204801	0.9-0.93 (US Band)	≤1.5	1.5	17	10	Circular	1218x488x12.5	SMA Female	ABS

RFID Slim CP6226

Model | Specification

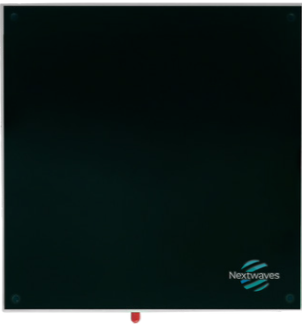


SKU	Frequency range (GHz)	VSWR	Axial Ratio (Typ.) (dB)	Gain, Typ (dBic)	Power max (W)	Pol.	Dimensions [WxLxH](mm)	Connector	Cover
RA-UC-SFF-622601*	0.9-0.93	≤1.4	1.5	12	10	RHCP	620x260x13	SMA Female	ABS

(*) Low sidelobe level (< -15 dB)

RFID Slim CP2525

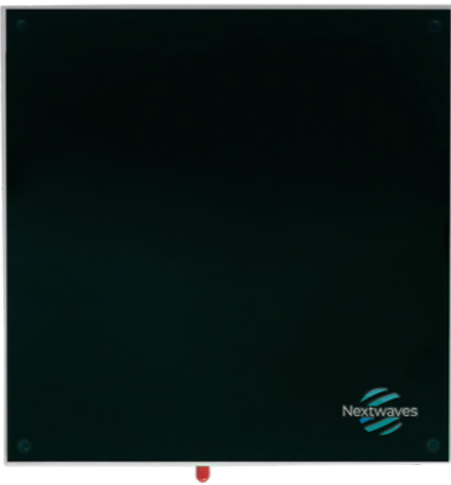
Model | Specification



SKU	Frequency range (GHz)	VSWR	Axial Ratio (dB)	Gain, Typ (dBic)	Power max (W)	Pol.	Dimensions [WxLxH](mm)	Connector	Cover
RA-UC-SFF-252501	0.9-0.93	≤1.15	1.5	9	10	CP	258x258x14.5	SMA Female	ABS

RFID Slim CP6060

Model | Specification



SKU	Frequency range (GHz)	VSWR	Axial Ratio (Typ.)(dB)	Gain, Typ (dBic)	Power max (W)	Pol.	Dimensions [WxLxH](mm)	Connector	Cover
RA-UC-SFF-606001	0.9-0.93 (US Band)	≤1.7	1.5	15.0	10	Circular	608x608x12.5	SMA Female	ABS

RFID Slim Near Field A3020

Model | Specification



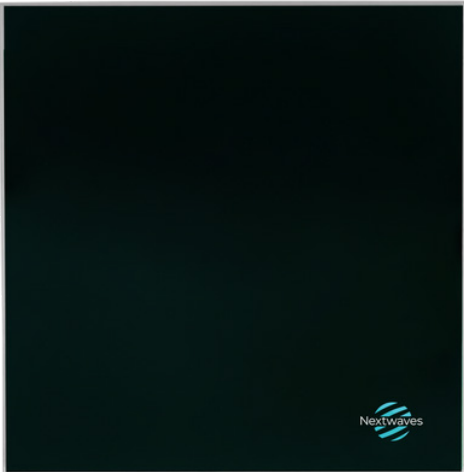
SKU	Frequency range (GHz)	VSWR	Peak Gain (dBi)	Power max (W)	Dimensions [WxLxH](mm)	Connector	Cover
RA-W-SFN-302001	0.86-0.96	<1.3:1 full band	-2	2 (33 dBm)	300x200x12	SMA Female	ABS

RFID READER

RFID Reader Antenna 303001

Model | Specification

SKU	RD-W-SFN-303001
Operating Frequency	866 - 868 MHz EU 902 - 928 MHz FCC
Working Protocol	EPC Class 1 Gen 2 (ISO18000-6C)
Power	5 VDC via USB Type C (900mA)
RF Output Power	Consumption: 3.5W max. Max 26 dBm, configurable (@1dBm per step)
Reading Distance	Upto 50cm (depends on tag as well)
LED Indicator	Static LED: Power Blinking LED: Tag Detection
Working Temperature	-20°C - 60°C
Weight	1.5 kg
Connector	USB Type-C
Cover	ABS Plastic
Dimension (mm)	313x313x30



RFID Reader Near-Field Extension

Model | Specification

SKU	RD-W-SFN4-303001
Operating Frequency	866 - 868MHz EU 902 - 928MHz FCC
Working Protocol	EPC Class 1 iGen 2 (ISO18000-6C)
Power	12 VDC Consumption: 3.5W max.
RF Output Power	Max 33 dBm configurable (@1dBm per step)
Gain	Nearfield UHF
Reading Distance	up to 50cm (depends on tag as well)
LED Indicator	Static LED: Power Blinking LED: Tag Detection
Working Temperature	-20°C - 60°C
Weight	1.5 kg
Connection	USB Type-C
Cover	ABS Plastic
Dimension (mm)	313x313x30
Extension antenna ports	3 ports
External antenna port connector	SMA Female



RFID Reader Dual Near-Field©

Model | Specification

SKU	RD-U-CFN2-302501
Operating Frequency	866MHz - 928MHz
Working Protocol	EPC Class 1 iGen 2 (ISO18000-6C)
Power	12 VDC Consumption: 3.5W max.
RF Output Power	Max 33 dBm configurable (@1dBm per step)
Reading Distance	up to 50cm (depends on tag as well)
LED Indicator	Static LED: Power Blinking LED: Tag Detection
Weight	900 g
Device Connectivity	USB Type-C
Power Connectivity	Jack DC 5.5mm x 2.1mm
Cover	ABS, Aluminum
Dimension (mm)	300x250x190
Operating and Storage temperature	-30°C ~ +60°C/ -220 to 1490oF



Compact RFID Reader Antenna

Model | Specification

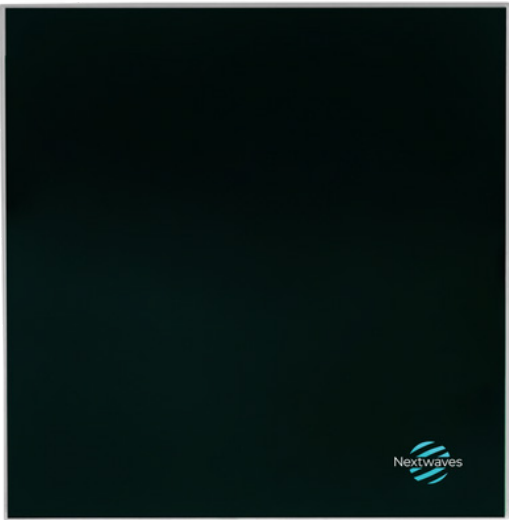
SKU	RD-WC-CFF-141401
Operating Frequency	860MHz - 960MHz
Working Protocol	EPC Class 1 iGen 2 (ISO18000-6C)
Power	12 VDC Consumption: 3.5W max.
RF Output Power	Max 33 dBm configurable (@1dBm per step)
Reading Distance	up to 50cm (depends on tag as well)
LED Indicator	Static LED: Power Blinking LED: Tag Detection
Max Gain	4dBic
Polarization	Circular
Axial Ratio (typ.)	2 dB
VSWR	≤ 1.4
Front to Back Ratio (typ.) (dB)	20
Impedance, (Ohm)	50
Weight	400 g
Device Connectivity	USB Type-C
Power Connectivity	Jack DC 5.5mm x 2.1mm
Cover	ABS, Aluminum
Dimension (mm)	130x130x28
Operating and Storage temperature	-30°C ~ +60°C/ -220 to 1490oF



RFID Reader CP252501

Model | Specification

SKU	RD-UC-CFF-252501
Operating Frequency	902 – 928 MHz
Working Protocol	EPC Class 1 iGen 2 (ISO18000-6C)
Power	12 VDC Consumption: 3.5W max.
RF Output Power	Max 33 dBm configurable (@1dBm per step)
Communication protocol	UART
Reading Distance	up to 50cm (depends on tag as well)
LED Indicator	Static LED: Power Blinking LED: Tag Detection
Gain, Typ (dBic)	9
Polarization	Circular
Axial Ratio (typ.) (dB)	2
VSWR	≤ 1.25
Weight	800 g
Device Connectivity	USB Type-C
Power Connectivity	Jack DC 5.5mm x 2.1mm
Cover	ABS, Aluminum
Dimension (mm)	250x250x15
Operating and Storage temperature	-30°C ~ +60°C/ -220 to 1490oF



Self-checkout Kiosk

Model | Specification

Self-checkout Kiosk with touchscreen	
CPU	Intel® N150
RAM	8GB DDR5
STORAGE	SSD M2 256GB
Screen	1920x1080 @ 60 Hz - Multi-point Touchscreen
Input Power	AC - 220V
Material	Wood - Anti-interference Aluminum
Operating Frequency	866MHz - 928MHz
Working Protocol	EPC Class 1 iGen 2 (ISO18000-6C)
RF Output Power	Max 33 dBm configurable (@1dBm per step)
Reading Distance	up to 50cm (depends on tag as well)
Dimension (cm)	42 x 42 x 90 (screen exclude)
Operating and Storage temperature	-30°C ~ +60°C/ -220 to 1490oF



Self-checkout table with touchscreen	
Screen	1920x1080 @ 60 Hz - Multi-point Touchscreen
Input Power	AC - 220V
Material	Wood, Aluminum
Operating Frequency	866MHz - 928MHz
Working Protocol	EPC Class 1 iGen 2 (ISO18000-6C)
RF Output Power	Max 33 dBm configurable (@1dBm per step)
Reading Distance	up to 50cm (depends on tag as well)
Dimension (cm)	42 x 42 x 90 (screen exclude)
Operating and Storage temperature	-30°C ~ +60°C/ -220 to 1490oF
Connection	Type C

RFID INLAY/ RETAIL LABEL

RFID HANGTAG & CUSTOMIZATION SERVICE

Surface Material	• 200 Art Paper/Coated Paper • 250g Art Paper/ Coated Paper • 200g White Card Paper • More Customized Materials...
Standard Size	• 63x40 mm • 83x25 mm • 87x42 mm
Other Customized Services	1.Customized printting of surface materials, color printing, varnish, and covering printing protective film. 2.Variable data printing and available data encoding. 3.Special-shaped die cutting, puching die cutting of dot lines



WOVEN LABEL & CUSTOMIZATION SERVICE

Surface Material	• Coated Nylon Tape • Polyester Ribbon • More Customized Materials
Packing	• Shipped in Rolls • Shipped in Single Piece
Other Customized Services	1.Customized printting of surface materials, color printing, varnish, and covering printing protective film. 2.Variable data printing and available data encoding. 3.Special-shaped die cutting, puching die cutting of dot lines



RFID INLAY / LABEL CATALOG

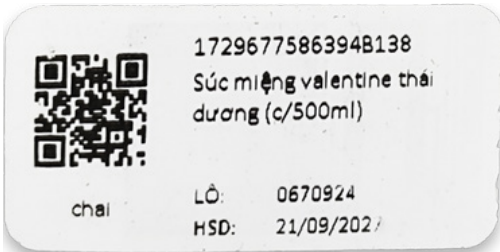
Description	Label Size	Image	Customized Label Size (with/without label)
UHF RFID Inlay 50x30mm (NXP) Chip: NXP UCODE 9	>55x35 mm		V
UHF RFID Inlay 42x16mm (NXP) Chip: NXP UCODE 9	>50x20 mm		V
UHF RFID Inlay 70x15mm (NXP) Chip: NXP UCODE 9	>75x20mm		V
UHF RFID Inlay 50x30mm (Quanray) Chip: Quanray 7U	55x35 mm		V
UHF RFID Inlay 42x16mm (Quanray) Chip: Quanray 7U	46x16 mm		V
UHF RFID Inlay 70x15mm (Quanray) Chip: Quanray 7U	>75x20 mm		V

Production capacity

Our production line owns modern equipment that brings the standard rate of 99.8% on 1 million tags, demonstrating our exceptional manufacturing quality where only 0.2% of products fail to meet quality standards. Our dual-market approach and impressive production capacity of 150 million units annually reflects our competitive advantage in delivering consistent, standard-compliant products to customers worldwide..

RFID LABEL

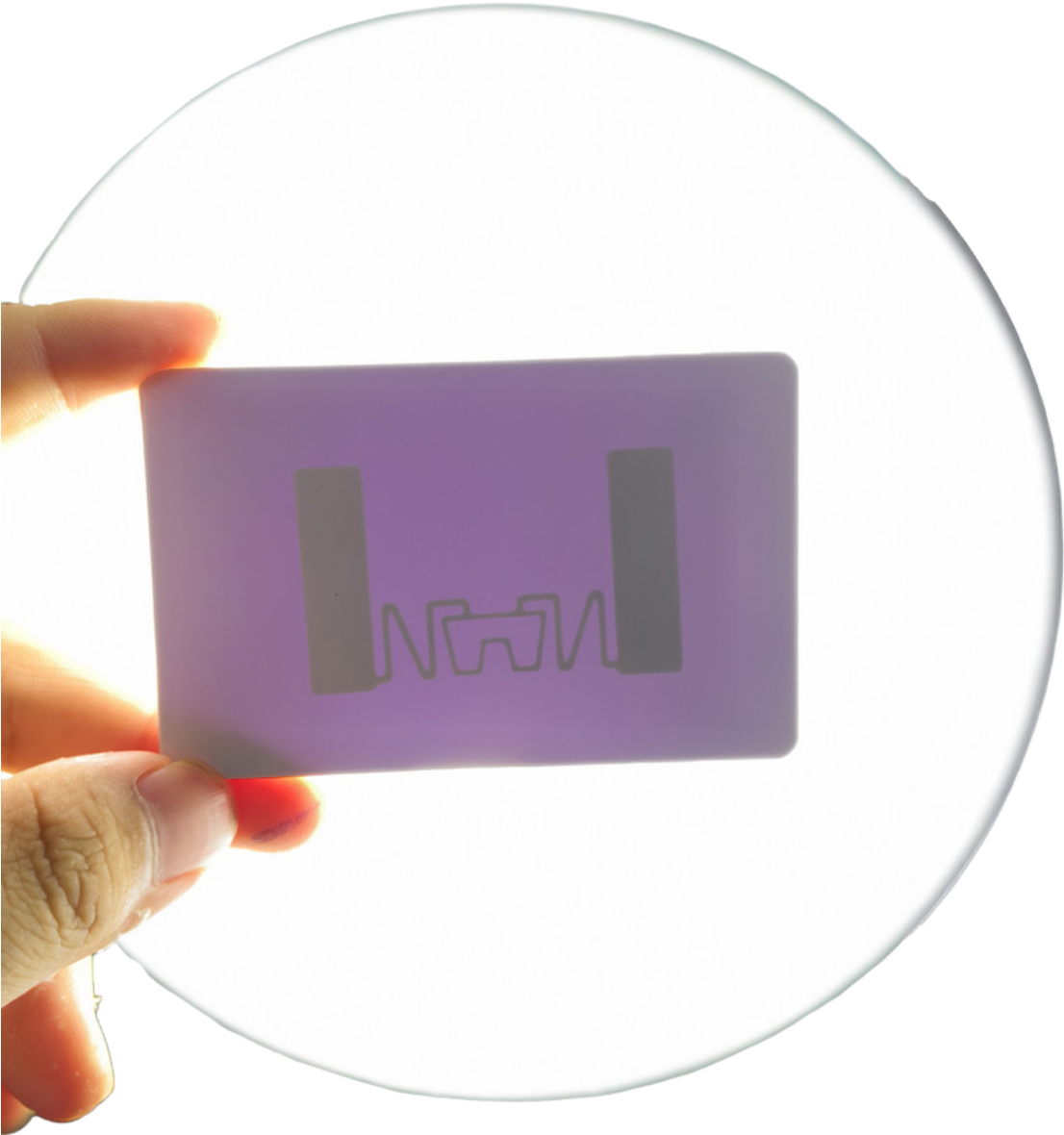
Description	Label Size	Black & white print service
UHF RFID Inlay 50x30mm (NXP) Chip: NXP UCODE 9	>55x35 mm	V
UHF RFID Inlay 42x16mm (NXP) Chip: NXP UCODE 9	>50x20 mm	V
UHF RFID Inlay 70x15mm (NXP) Chip: NXP UCODE 9	>75x20mm	V
UHF RFID Inlay 50x30mm (Quanray) Chip: Quanray 7U	55x35 mm	V
UHF RFID Inlay 42x16mm (Quanray) Chip: Quanray 7U	46x16 mm	V
UHF RFID Inlay 70x15mm (Quanray) Chip: Quanray 7U	>75x20 mm	V



RFID PVC CARD

Size	Technology	Add-on
85.60 mm × 53.98 mm x (0.8 - 1.4 mm)	LF & HF (NFC) & UHF. Single or dual band	Dual-band, CRA (challenge response authentication)

Nextwaves builds RFID PVC cards with production that balances precision, scale, and speed. We manufacture to the ID 1 size using premium PVC and reliable inlays across LF, HF with NFC, and UHF, including dual band configurations. Automated lamination, clean room bonding, and inline electrical tests secure high yield and consistent read range. We offer CRA challenge response authentication, pre encoding, variable printing, and bureau personalization at volume. Batch control, traceability, and 100 percent quality checks protect your brand. From engineering samples to mass runs, our team tunes antennas, materials, and printer profiles so every shipment performs in the field.



RF SWITCH

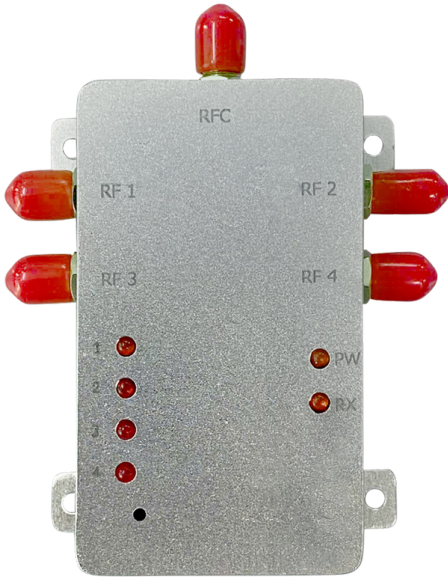
SPFT RF SWITCH

Model | Specification

Maximum Ratings	
Operating Temperature	-55 ° C to 100 ° C
Storage Temperature	-55 ° C to 100 ° C
Power	+40 dBm
Supply V	+6V (Type C), +15V (DC JACK)

Additional Specifications	
Operating Temperature	-55 ° C to 100 ° C
Storage Temperature	-55 ° C to 100 ° C
Power	+40 dBm
Supply V	+5V (Type C), +9V (DC JACK)

SKU	Frequency range (MHz)	Insertion Loss (dB)	Isolation (dB)	Transit Time (ms, typ.)	0.1 dB Compression (dBm)	Dimensions [WxLxH](mm)	Cover
SW-RF-10-A1	50-3000	0.5	≤-25	30	+39	57.7x75.6x15.5	Aluminum



Rectangular Waveguide Interface Aperture

Model | Specification



SKU	Waveguide (EIA)	Frequency range (GHz)	VSWR (:1)	Gain (dBic)	Dimensions [WxLxH](mm)	Flange
SH-975-NF-10-CPRG	WR975	0.75 - 1.15	<1.25	10	450x320x435	CPRG
SH-770-NF-10-CPRG	WR770	0.97 - 1.45	<1.25	10	382x280x354	CPRG
SH-650-NF-10-CPRG	WR650	1.15 - 1.72	<1.25	10	310x230x290	CPRG
SH-510-NF-10-CPRG	WR510	1.45 - 2.20	<1.25	10	245x190x410	CPRG
SH-430-NF-10-CPRG	WR430	1.72 - 2.60	<1.25	10	205x155x380	CPRG
SH-430-NF-15-CPRG				15	370x270x370	CPRG
SH-340-NF-10-CPRG	WR340	2.20 - 3.30	<1.25	10	160x120x263	CPRG
SH-340-NF-15-CPRG				15	318x249x298	CPRG
SH-284-NF-10-CPRG	WR284	2.60 - 3.95	<1.25	10	140x105x220	CPRG
SH-284-NF-15-CPRG				15	232x170x270	CPRG
SH-229-NF-10-CPRG	WR229	3.30 - 4.90	<1.25	10	120x85x147	CPRG
SH-229-NF-15-CPRG				15	215x152x247	CPRG
SH-187-NF-10-CPRG	WR187	3.95 - 5.85	<1.25	10	100x80x192	CPRG
SH-187-NF-15-CPRG				15	165x120x200	CPRG
SH-159-NF-10-CPRG	WR159	4.90 - 7.05	<1.25	10	81x72x122	CPRG
SH-159-NF-15-CPRG				15	136x101x178	CPRG
SH-137-NF-10-CPRG	WR137	5.85 - 8.20	<1.25	10	67x55x108	CPRG
SH-137-NF-15-CPRG				15	143x112x166	CPRG
SH-137-NF-20-CPRG				20	195x152x285	CPRG
SH-112-NF-10-SQ	WR112	7.05 - 10.00	<1.25	10	52x46x87	SQ
SH-112-NF-15-SQ				15	101x70x136	SQ
SH-112-NF-20-SQ				20	170x126x227	SQ
SH-90-SF-10-SQ	WR90	8.20 - 12.40	<1.25	10	41x42x74	SQ
SH-90-SF-15-SQ				15	83x59x105	SQ
SH-90-SF-20-SQ				20	144x112x202	SQ
SH-75-SF-10-SQ	WR75	10.00 - 15.00	<1.25	10	37x38x60	SQ
SH-75-SF-25-SQ				15	67x48x87	SQ
SH-75-SF-20-SQ				20	107x83x152	SQ
SH-62-SF-10-SQ	WR62	12.40 - 18.00	<1.25	10	33x35x58	SQ
SH-62-SF-15-SQ				15	48x35x82	SQ
SH-62-SF-20-SQ				20	93x71x133	SQ
SH-51-SF-10-SQ	WR51	15.00-22.00	<1.25	10	30x31x44	SQ
SH-51-SF-15-SQ					43x33x66	SQ
SH-51-SF-20-SQ					76x58x107	SQ

Coaxial to Rectangular Waveguide Adapter

Model | Specification



SKU	Waveguide (EIA)	Frequency range (GHz)	VSWR (:1)	Gain (dBic)	Dimensions [WxLxH](mm)	Flange
SA-975-NF-CPRG	WR975	0.75 - 1.15	<1.25	10	450x320x435	CPRG
SA-770-NF-CPRG	WR770	0.97 - 1.45	<1.25	10	382x280x354	CPRG
SA-650-NF-CPRG	WR650	1.15 - 1.72	<1.25	10	310x230x290	CPRG
SA-510-NF-CPRG	WR510	1.45 - 2.20	<1.25	10	245x190x410	CPRG
SA-430-NF-CPRG	WR430	1.72 - 2.60	<1.25	10	205x155x380	CPRG
SA-430-SF-CPRG				15	370x270x370	CPRG
SA-340-NF-CPRG	WR340	2.20 - 3.30	<1.25	10	160x120x263	CPRG
SA-340-SF-CPRG				15	318x249x298	CPRG
SA-284-NF-CPRG	WR284	2.60 - 3.95	<1.25	10	140x105x220	CPRG
SA-284-SF-CPRG				15	232x170x270	CPRG
SA-229-NF-CPRG	WR229	3.30 - 4.90	<1.25	10	120x85x147	CPRG
SA-229-SF-CPRG				15	215x152x247	CPRG
SA-187-NF-CPRG	WR187	3.95 - 5.85	<1.25	10	100x80x192	CPRG
SA-187-SF-CPRG				15	165x120x200	CPRG
SA-159-NF-CPRG	WR159	4.90 - 7.05	<1.25	10	81x72x122	CPRG
SA-159-SF-CPRG				15	136x101x178	CPRG
SA-137-NF-CPRG	WR137	5.85 - 8.20	<1.25	10	67x55x108	CPRG
SA-137-SF-CPRG				15	143x112x166	CPRG
SA-112-NF-SQ				20	195x152x285	CPRG
SA-112-SF-SQ	WR112	7.05 - 10.00	<1.25	10	52x46x87	SQ
SA-90-SF-SQ				15	101x70x136	SQ
SA-75-SF-SQ				20	170x126x227	SQ
SA-62-SF-SQ	WR90	8.20 - 12.40	<1.25	10	41x42x74	SQ
SA-51-SF-SQ				15	83x59x105	SQ

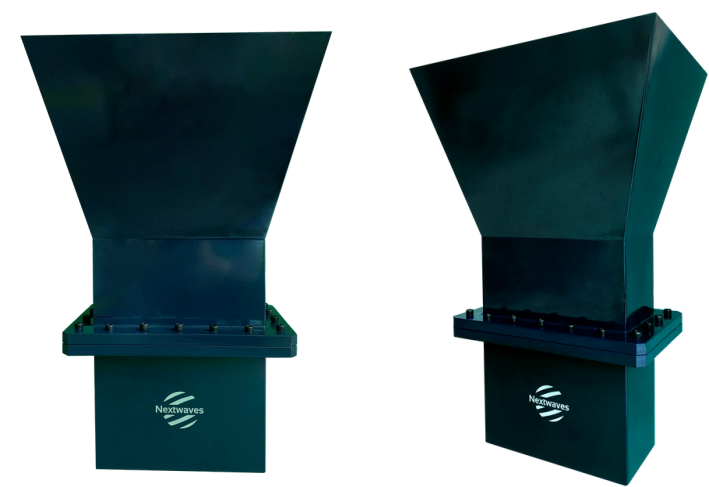
Waveguide Horn Antenna

Model | Specification



SKU	Waveguide (EIA)	Frequency range (GHz)	VSWR (:1)	Gain (dBic)	Dimensions [WxLxH] (mm)	Flange	Connector
SH-975-NF-10-CPRG	WR975	0.75 - 1.15	<1.25	10	450x320x665	CPRG	N Type Female
SH-770-NF-10-CPRG	WR770	0.97 - 1.45		10	382x280x520		N Type Female
SH-650-NF-10-CPRG	WR650	1.15 - 1.72		10	310x230x430		N Type Female
SH-510-NF-10-CPRG	WR510	1.45 - 2.20	<1.25	10	245x190x520		N Type Female
SH-430-NF-10-CPRG	WR430	1.72 - 2.60	<1.25	10	205x155x480	CPRG	N Type Female
SH-430-SF-10-CPRG	WR430	1.72 - 2.60	<1.25	10	205x155x480		SMA Female
SH-430-NF-15-CPRG	WR430	1.72 - 2.60	<1.25	15	370x270x470		N Type Female
SH-430-SF-15-CPRG	WR430	1.72 - 2.60	<1.25	15	370x270x470		SMA Female
SH-340-NF-10-CPRG	WR340	2.20 - 3.30	<1.25	10	160x120x355	CPRG	N Type Female
SH-340-SF-10-CPRG	WR340	2.20 - 3.30	<1.25	10	160x120x355		SMA Female
SH-340-NF-15-CPRG	WR340	2.20 - 3.30	<1.25	15	318x249x390		N Type Female
SH-340-SF-15-CPRG	WR340	2.20 - 3.30	<1.25	15	318x249x390		SMA Female
SH-284-NF-10-CPRG	WR284	2.60 - 3.95	<1.25	10	140x105x300	CPRG	N Type Female
SH-284-SF-10-CPRG	WR284	2.60 - 3.95	<1.25	10	140x105x300		SMA Female
SH-284-NF-15-CPRG	WR284	2.60 - 3.95	<1.25	15	232x170x350		N Type Female
SH-284-SF-15-CPRG	WR284	2.60 - 3.95	<1.25	15	232x170x350		SMA Female
SH-229-NF-10-CPRG	WR229	3.30 - 4.90	<1.25	10	120x85x225	CPRG	N Type Female
SH-229-SF-10-CPRG	WR229	3.30 - 4.90	<1.25	10	120x85x225		SMA Female
SH-229-NF-15-CPRG	WR229	3.30 - 4.90	<1.25	15	215x152x325		N Type Female
SH-229-SF-15-CPRG	WR229	3.30 - 4.90	<1.25	15	215x152x325		SMA Female
SH-187-NF-10-CPRG	WR187	3.95 - 5.85	<1.25	10	100x80x245	CPRG	N Type Female
SH-187-NF-15-CPRG	WR187	3.95 - 5.85	<1.25	10	100x80x245		SMA Female
SH-187-SF-15-CPRG	WR187	3.95 - 5.85	<1.25	15	165x120x252		N Type Female
SH-159-NF-10-CPRG	WR187	3.95 - 5.85	<1.25	15	165x120x252		SMA Female
SH-159-SF-10-CPRG	WR159	4.90 - 7.05	<1.25	10	81x72x172	CPRG	N Type Female
SH-159-NF-15-CPRG	WR159	4.90 - 7.05	<1.25	10	81x72x172		SMA Female
SH-159-SF-15-CPRG	WR159	4.90 - 7.05	<1.25	15	136x101x228		N Type Female
SH-137-NF-10-CPRG	WR159	4.90 - 7.05	<1.25	15	136x101x228		SMA Female
SH-137-SF-10-CPRG	WR137	5.85 - 8.20	<1.25	10	67x55x158	CPRG	N Type Female
SH-137-NF-15-CPRG	WR137	5.85 - 8.20	<1.25	10	67x55x158		SMA Female
SH-137-SF-15-CPRG	WR137	5.85 - 8.20	<1.25	15	143x112x216		N Type Female
SH-137-NF-20-CPRG	WR137	5.85 - 8.20	<1.25	15	143x112x216		SMA Female
SH-137-SF-20-CPRG	WR137	5.85 - 8.20	<1.25	20	195x152x335		N Type Female
SH-112-NF-10-SQ	WR137	5.85 - 8.20	<1.25	20	195x152x335		SMA Female

Waveguide
Horn Antenna



Model | Specification

SKU	Waveguide (EIA)	Frequency range (GHz)	VSWR (∶1)	Gain (dBic)	Dimensions [WxLxH](mm)	Flange	Connector
SH-112-SF-10-SQ	WR112	7.05 - 10.00	<1.25	10	52x46x129		N Type Female
SH-112-NF-15-SQ	WR112	7.05 - 10.00	<1.25	10	52x46x129		SMA Female
SH-112-SF-15-SQ	WR112	7.05 - 10.00	<1.25	15	101x70x178		N Type Female
SH-112-NF-20-SQ	WR112	7.05 - 10.00	<1.25	15	101x70x178		SMA Female
SH-112-NF-20-SQ	WR112	7.05 - 10.00	<1.25	20	170x126x269		N Type Female
SH-112-SF-20-SQ	WR112	7.05 - 10.00	<1.25	20	170x126x269		SMA Female
SH-90-SF-10-SQ	WR90	8.20 - 12.40	<1.25	10	41x42x112	SQ	SMA Female
SH-90-SF-15-SQ	WR90	8.20 - 12.40	<1.25	15	83x59x143	SQ	SMA Female
SH-90-SF-20-SQ	WR90	8.20 - 12.40	<1.25	20	144x112x240	SQ	SMA Female
SH-75-SF-10-SQ	WR75	10.00 - 15.00	<1.25	10	37x38x92	SQ	SMA Female
SH-75-SF-15-SQ	WR75	10.00 - 15.00	<1.25	15	67x48x119	SQ	SMA Female
SH-75-SF-20-SQ	WR75	10.00 - 15.00	<1.25	20	107x83x184	SQ	SMA Female
SH-62-SF-10-SQ	WR62	12.40 - 18.00	<1.25	10	33x35x85	SQ	SMA Female
SH-62-SF-15-SQ	WR62	12.40 - 18.00	<1.25	15	48x35x85	SQ	SMA Female
SH-62-SF-20-SQ	WR62	12.40 - 18.00	<1.25	20	93x71x160	SQ	SMA Female
SH-51-SF-10-SQ	WR51	15.00 - 22.00	<1.25	10	30x31x72	SQ	SMA Female
SH-51-SF-15-SQ	WR51	15.00 - 22.00	<1.25	15	43x33x94	SQ	SMA Female
SH-51-SF-20-SQ	WR51	15.00 - 22.00	<1.25	20	76x58x135	SQ	SMA Female



Omni-Marine Antenna BC-103

Model | Specification



SKU	Frequency range (GHz)	VSWR	Peak gain (dBi)	Pol.	Power max (W)	MIMO/SISO	Connector	Cover
MO-BC-101	0.617 - 0.96	<2.2	3.5	Linear	10	SISO	SMA Female	ABS
MO-BC-101	1.427 - 1.517	<2.2	3.5	Linear	10	SISO	SMA Female	ABS
MO-BC-101	1.71 - 2.7	<2.2	3.5	Linear	10	SISO	SMA Female	ABS
MO-BC-101	3.4 - 3.8	<2.2	3.5	Linear	10	SISO	SMA Female	ABS

Omni-Marine Antenna BC-206

Model | Specification



SKU	Frequency range (GHz)	VSWR	Peak gain (dBi)	Pol.	MIMO/SISO	Height	Connector	Material
MO-BC-202	0.617 - 0.96	<2	6.5	Linear	MIMO	346	SMA Female	ABS
MO-BC-202	1.427 - 1.517	<2	6.5	Linear	MIMO	346	SMA Female	ABS
MO-BC-202	1.71 - 2.7	<2	6.5	Linear	MIMO	346	SMA Female	ABS
MO-BC-202	3.4 - 3.8	<2	6.5	Linear	MIMO	346	SMA Female	ABS

Omni-Marine Bamboo Antenna PVC

Model | Specification

SKU	Frequency range (GHz)	VSWR	Peak gain (dBi)	Pol.	Height (mm)	MIMO/SISO	Connector	Cover
MO-BC-101	0.694 - 0.960	<2.1	2.0	Linear	950	MIMO	SMA Female	PVC
MO-BC-101	1.710 - 2.170	<3.2	4.0	Linear	950	MIMO	SMA Female	PVC
MO-BC-101	2.300 - 2.690	<2.4	2.5	Linear	950	MIMO	SMA Female	PVC
MO-BC-101	2.400 - 2.484	<2.3	3	Linear	950	MIMO	SMA Female	PVC



Omni-Marine Bamboo Antenna ASA

Model | Specification

SKU	Frequency range (GHz)	VSWR	Peak gain (dBi)	Pol.	MIMO/SISO	Connector	Cover
MO-PA-201	0.694 - 0.960	<2.1	2.0	Linear	MIMO	SMA Female	ABS
MO-PA-201	1.710 - 2.170	<3.2	4.0	Linear	MIMO	SMA Female	ABS
MO-PA-201	2.300 - 2.690	<2.4	2.5	Linear	MIMO	SMA Female	ABS
MO-PA-201	2.400 - 2.484	<2.3	3	Linear	MIMO	SMA Female	ABS





BTS 4G Antenna

Model | Specification

Mechanical Specifications	
Dimensions (WxLxD)	350 x 1380 x 150 (mm)
Net Weight	≤ 17 kg
Lightning Protection	DC ground
Connector	6 x 4.3-10 Connector Female (IP67), Bottom positioned
E-TILT Adjusting module	Replaceable Internal RET, 1 x Bottom positioned
Mechanical downtilt	0° - 20°
Mounting interface	Pole mounting (Ø45 - Ø120mm)
Wind load (at 150km/h)(N)	Front/Rear : 640 Lateral : 350
Survival wind speed	200 Km/h
Radome material	ASA+PC, UV resistance
Radome color	Gray (RAL 7047)
Lowband	
Frequency	1710 - 2690 MHz
Antenna gain	16.2 - 16.8 dBi
Polarization	Dual, ± 45 °
Electrical downtilt	0° - 10 °
Horizontal beamwidth	65° ± 5.0°
Vertical beamwidth	6.4° ± 1.0°
Highband	
Frequency	698 - 960 MHz
Antenna gain	13.2 - 13.8 dBi
Polarization	Dual, ± 45 °
Electrical downtilt	0° - 10 °
Horizontal beamwidth	67° ± 4.0°
Vertical beamwidth	15° ± 2.5°



Direction Finding Antenna

Model | Specification

Direction Finding Antenna	
DF frequency range band 1	300 - 1000 MHz
DF frequency range band 2	1000 - 3000 MHz
Reference antenna	30 - 6000 MHz
Nominal input impedance	50
Antenna type	e-element DF interferometer for 2-channel receiver or 5-channel receiver
Polarisation	vertical

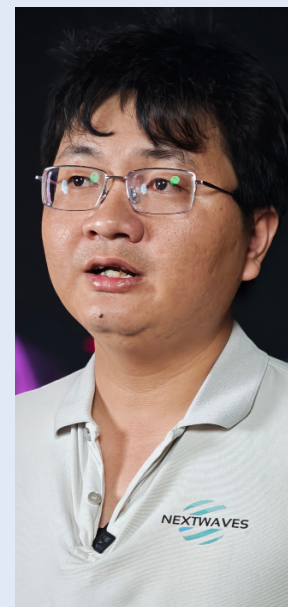
Spiral Antenna X-band

Model | Specification



SKU	Frequency range (GHz)	VSWR, TYP.	Gain (dB)	Impedance (Ohm)	Output Type	Dimensions [WxLxH](mm)	Connector	Cover
RA-WC-NFF-131301	8 - 12	2:1	6	50	Coxial	32x32x200	SMA Female	Plastic

TEAM



KHANH NGUYEN
COO / Co-founder

Expert in finance and supply chain operations management.



NGHIA NGUYEN
CTO / Co-founder

Ph.D. in antennas and propagation, University of Adelaide, Australia.

Vietnamese Experts Leading Wave Transmission Technology

The Nextwaves team brings together leading engineers, researchers, and experts in antennas, wave propagation, RFID, and integrated systems, with extensive experience both domestically and internationally. Many team members have worked at major research institutes in Australia, Singapore, and South Korea, and have contributed to global projects in telecommunications, sensor technology, and RF circuit design.

Nextwaves currently has a team of over 20 engineers and R&D specialists, including Ph.D. holders in electromagnetics and RF systems who have received research awards and hold more than 10 patents in antenna, sensor, and wireless signal transmission technologies. We focus not only on theoretical research but also on practical implementation, steadily developing high-tech “Make in Vietnam” products that meet international standards.

Each Nextwaves team member brings innovation, problem-solving skills, and a growth mindset. We follow the principle: " Understand – Design – Execute – Support." This ensures consistent quality and efficiency for both local and international projects.

Testimonial



RF Systems Expert & International Advisor
PROF. CHRISTOPHE FUMEUX

Their deep expertise in antenna design and RF systems is evident in every detail of their work. From early-stage concept development to real-world deployment, Nextwaves demonstrates both technical excellence and a strong understanding of practical requirements.

Nextwaves Industries is a member of



Partners & customers



Purchase

Our standard product is available for purchase directly on Alibaba, ensuring convenient global access for our customers



Shipping & Delivery



We ship worldwide, ensuring our standard product reaches customers wherever you are located.

Partnership

Talk directly to our team about partnership opportunities and explore how we can collaborate for mutual growth.

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