Product Datasheet

A9044M Packing Station Antenna

Times-7 is a high-tech company specialising in the design and manufacture of fixed RAIN RFID antennas.

Times-7 first was founded in 2006. Since then, we have developed the largest portfolio of fixed RAIN RFID reader antennas, which are known for their SlimLine™ design, quality and performance.

Our antennas cover:

- A wide variety of RF characteristics
- A range of sizes
- Leading temperature performance
- Range of IP ratings

If your deployment requires a specialisation that is not met by our standard portfolio, we can design and manufacture customised antennas to meet your needs.

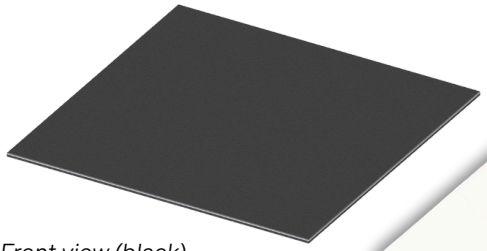
We are based in Lower Hutt, New Zealand, with a global reach as we export our products through our extensive authorised partner network.

In addition to our world-class RAIN RFID antennas, customers appreciate Times-7's customer service and in-depth technical support.

We are responsive in supporting a large global customer base and ensuring the success of our customer's RFID implementations.

Patent information:
www.times-7.com/patents

Times-7 Research Ltd
10 Te Puni Street
Lower Hutt 5012
New Zealand



Front view (black), also available in white

Back view (showing 4 x ports)

The Packing Station Antenna is engineered for reliable item-level reads in densely packed product environments. Outperforming conventional multi-patch arrays in standard portal setups, the Packing Station Antenna uses a high-gain, multi-patch design with varied orientations to deliver 100% read rates when integrated into tunnel systems.

Whether deployed as a standalone tabletop unit or integrated into a tunnel, the Packing Station Antenna enables efficient and adaptable workflows, allowing it to read over a thousand tags in just seconds.

FEATURES

Compact, slim, lightweight, yet a powerful antenna

Multi-linear polarised

Tilted beams operated using a four-port reader

Combination of evenly distributed near-field and far-field energy

Able to read densely packed assets in seconds

ORDERING INFORMATION

Note:
Please quote part number, frequency range, cable type and part number.

Antenna	Frequency Range	Part Number
Packing Station Antenna EU (SMA, Black)	ETSI 865-868 MHz	75330
Packing Station Antenna US (SMA, Black)	FCC 902-928 MHz	75331
Packing Station Antenna EU (SMA, White)	ETSI 865-868 MHz	75575
Packing Station Antenna US (SMA, White)	FCC 902-928 MHz	75576

Cable Accessories

Please see our cable accessories page for further details:
www.times-7.com/rain-rfid-antennas/antenna-accessories/cables

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PHYSICAL / ENVIRONMENTAL SPECIFICATIONS

Dimensions: **(L x W x D)**	640 x 650 x 8.6 mm (21.1mm with connectors) 25 x 25.6 x 0.34” (0.83” with connectors)
Boxed Unit Dimensions: **(L x W x D)**	2 antennas per box 700 x 690x 80mm 27.56 x 27.17 x 3.14"
Weight:	Net: 2kg / 4.41lbs. Gross (packaged in units of two): 9.5kg
Radome Material:	Flame-retardant and UV-resistant ABS
Environmental Rating:	IP54
Operating & Storage Temperature:	-20°C to + 55°C / -4°F to +131°F
Mounting:	8 perimeter mounting holes (corners and mid-edge)
Connector Type:	4 x connectors, SMA Female (Jack), rear-exit

ELECTRICAL SPECIFICATIONS

Frequency Range:	865-868 MHz (ETSI) / 902-928 MHz (FCC)
Polarisation:	Multi-linear polarisation
Far-Field Gain:	7dBi typical
***Far-Field 3dB Beamwidth:**	65° in both azimuth and elevation planes with 10° beam tilt (Ports 2,3) 30° and 40° in azimuth and elevation with 15-20° beam tilts (Ports 1, 4)
VSWR:	1.85 typical
Front-To-Back Ratio:	-15dB typical
Nominal Impedance:	50Ω
Anti-Static Protection:	Yes, DC grounded
Antenna Detection:	10KΩ resistance
Maximum Input Power:	3W

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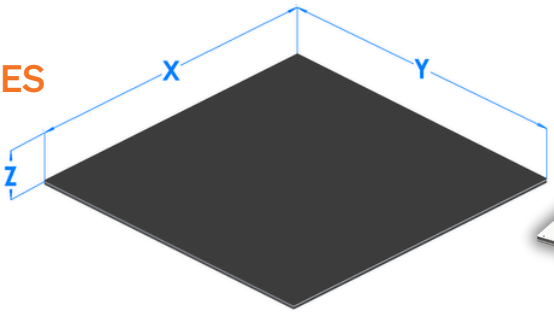
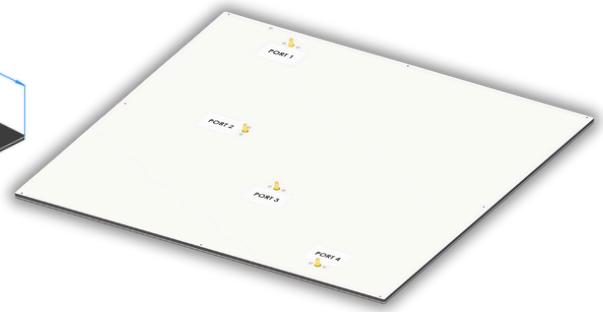
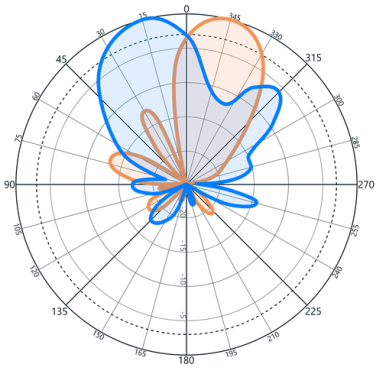
AZIMUTH PLANES

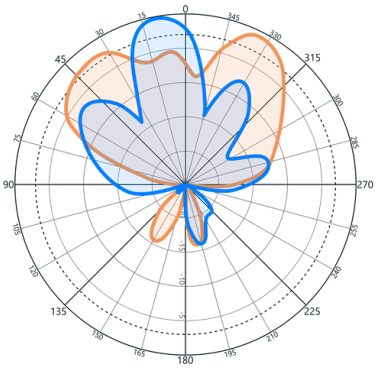




RADIATING PATTERNS

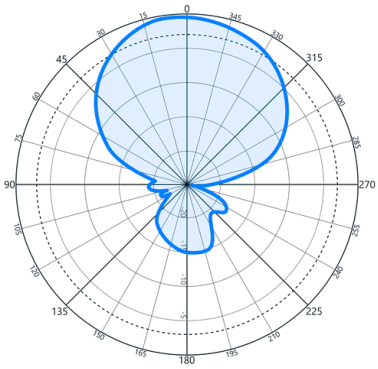
Port 1: Multi-linear polarised directional beam with 15-20° beam tilt

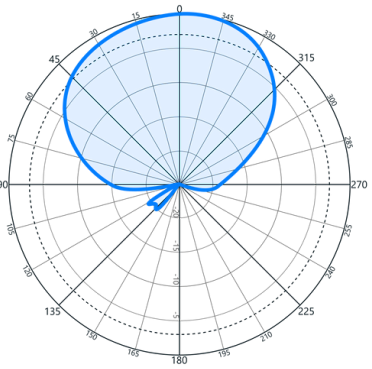

XZ Plane


YZ Plane

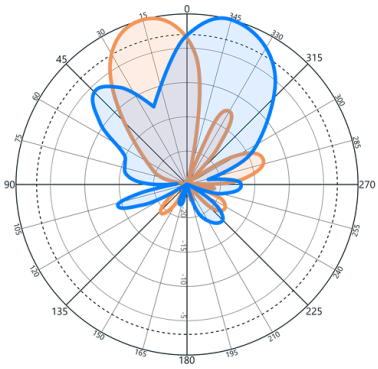
Port 2: Horizontally polarised 65° symmetrical beam

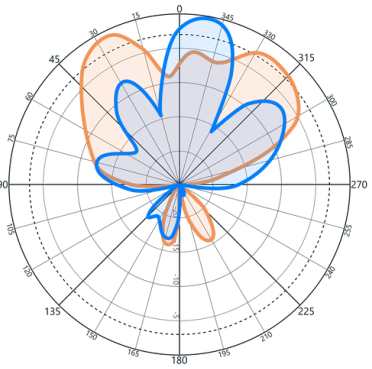
Port 3: Vertically polarised 65° symmetrical beam


XZ Plane


YZ Plane

Port 4: Multi-linear polarised directional beam with 15-20° beam tilt


XZ Plane


YZ Plane

Radiating Patterns Key:

Horizontal polarisation | Vertical polarisation

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APPLICATIONS

Static scanning station

A static scanning station provides a controlled, high-accuracy read zone for verifying items placed directly onto a desk, bench, or packing surface. Using a compact, multi-polarised antenna such as the Packing Station Antenna, static stations eliminate the need for conveyors or portals and allow operators to simply set down a carton, tote, tray, or kit and trigger a read.

This setup is ideal for packing verification, kitting, returns processing, cycle counts, and QC checks, ensuring 100% item visibility even when products are densely packed or variably oriented.

With predictable performance, minimal footprint, and rapid deployment, static scanning stations are perfect for micro-fulfilment centres, retail back-offices, and manufacturing workcells where space is limited and speed matters.

Conveyor / side mounted

Side-mounted configurations enable reliable tag capture along a moving conveyor without the need for bulky overhead portals. Installed beside, above, or angled toward the belt, antennas create focused read zones that detect items as they pass through, ensuring smooth material flow with minimal infrastructure.

When using an advanced antenna like Packing Station Antenna, operators benefit from tilted beams, spatial diversity, and multi-polarisation scanning, which improve read rates on mixed-orientation tag, especially in bags, cartons, or soft goods.

This makes side-mounted solutions ideal for sortation lines, outbound validation, order consolidation, and baggage/parcel verification, providing performance similar to traditional tunnels but with dramatically lower cost, weight, and footprint.

Integrated in RFID tunnels

RFID tunnels are typically large, multi-antenna enclosures designed to read items in bulk as they move through a defined RF chamber. These systems create a controlled environment but are heavy, expensive, and occupy significant floor space, making them challenging for agile or decentralised operations.

Packing Station Antenna-based systems provide a modern alternative: a single-antenna, multi-polarised, multi-beam design that replicates tunnel-level coverage without the size and complexity.

Why choose the Packing Station Antenna

The Packing Station Antenna delivers high-density reads, reduced dead zones, and consistent performance across materials, making it ideal for high-volume e-commerce packing, inbound/outbound verification, and automated fulfilment workflows traditionally served by RFID tunnels.

For more antenna recommendations by applications, **visit https://www.times-7.com/applications**

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INSTALLATION INSTRUCTIONS

- Ensure that only finger tightness is used for the SMA connector. Use of tools to tighten the connector will apply excessive force and will damage the connector.
- Avoid any excessive pulling force on the cable and be mindful of its bend radius to prevent damage and ensure proper functioning

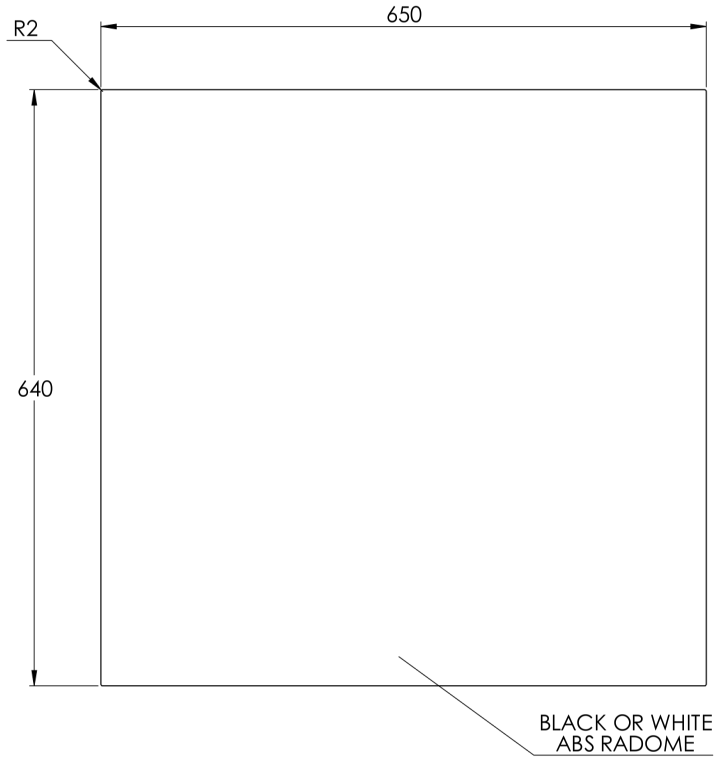
PAYLOAD INFORMATION

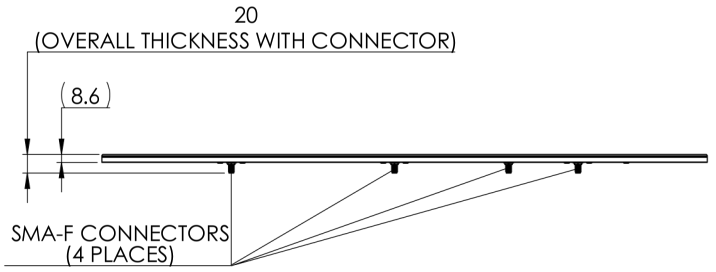
- Ensure that the antenna surface is not damaged from sharp objects such as steel-edged wheels, stone chips, or glass fragments, etc.
- Any point load must not exceed 100 psi (7kg/ cm2) and the maximum distributed load on the antenna should not exceed 1100lb (500kg).

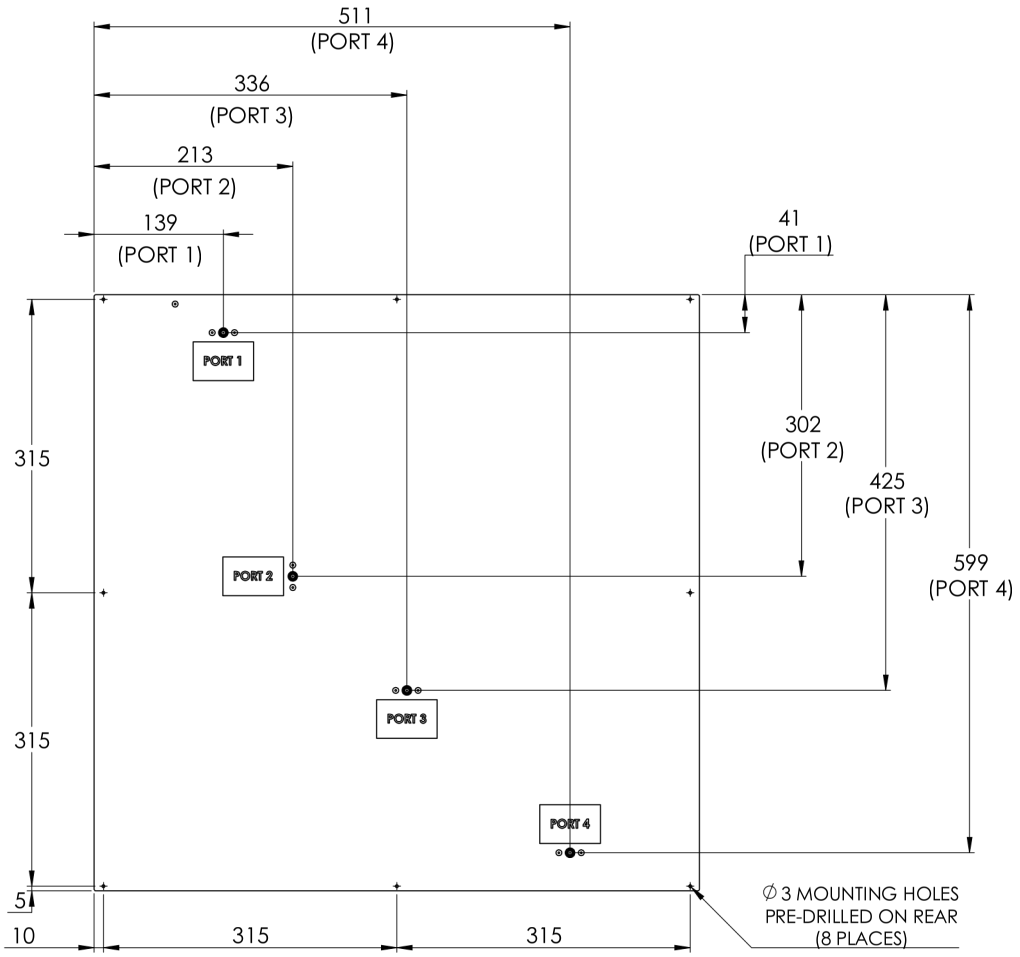
View the Times-7 Cable Accessory datasheet here

For additional information, such as RoHS, REACH, CE or CAD models please contact us at sales@times-7.com

MECHANICAL DRAWING FOR A9044M PACKING STATION ANTENNA







NOTE: THIS DRAWING IS FOR THE SMA CONNECTOR VERSION.

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TIMES-7 LTD. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TIMES-7 IS PROHIBITED.	DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED TOLERANCES: NO DECIMAL PLACES ONE PLACE DECIMAL ± 1 ± 0.5		DESCRIPTION: A9044M PACKING STATION ANTENNA
DRAWN BY: M. PRICE		DATE: 17-11-25	
APPROVED BY: P. WILCOCK		DATE: 17-11-25	
SIZE A3	PART NO. 75330 (ETSI - BLACK), 75575 (ETSI - WHITE) 75531 (FCC - BLACK), 75576 (FCC - WHITE)		REV B
DO NOT SCALE DRAWING			SHEET 1 OF 2