

We are a high-tech company specialising in the design and manufacture of fixed RAIN RFID antennas.

Our journey began in 2006, when Times-7 was founded. 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, Times-7 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**.

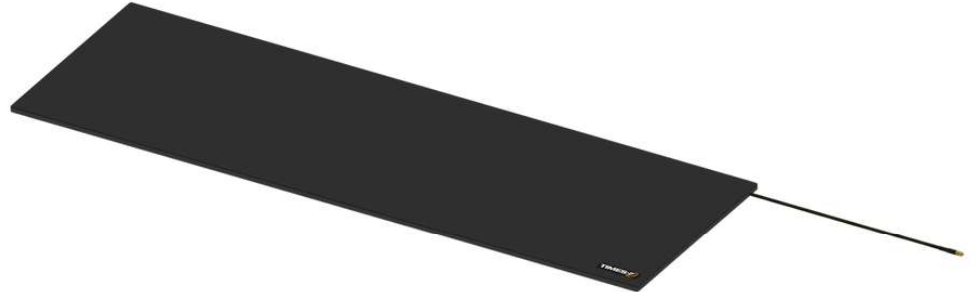
In addition to our world-class RAIN RFID antennas, customers appreciate Times-7's customer service and **in-depth technical support**.

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



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

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



The A6590C Circularly Polarized Ground Antenna excels in RFID applications that involve the dynamic movement of items, assets, and individuals. This antenna is well-suited for a range of applications, including monitoring conference attendees, tracking people in retail settings for presence awareness, or ensuring precise race timing. At just 8mm (0.3") thick, the durable, the high performance A6590C is uniquely capable of lying flat on the ground within a doorway-sized footprint.

ORDERING INFORMATION

Note: Please quote product code, part number, band, cable type & part number

Antenna Product Code*	Frequency	Part Number
A6590C - SMA-F, 300mm Cable	FCC 902-928 MHz	71325
A6590C - SMA-F, 300mm Cable	ETSI 865-868 MHz	71324
A6590C - RP-TNC, 2m Cable	FCC 902-928 MHz	71749
A6590C - RP-TNC, 2m Cable	ETSI 865-868 MHz	71799

Cable Accessories Product Code	Cable Type	Part number
Cable 2m, SMA to RPTNC	T7 195 / 240 / 400	71436 / 71782 / 72042
Cable 4m, SMA to RPTNC	T7 240 / 400	71784 / 72043
Cable 6m, SMA to RPTNC	T7 240 / 400	71904 / 72044
Cable 8m, SMA to RPTNC	T7 240 / 400	71788 / 72045

*ROHS & CE compliant.

View the Times-7 Cable Accessory Datasheet [here](#).

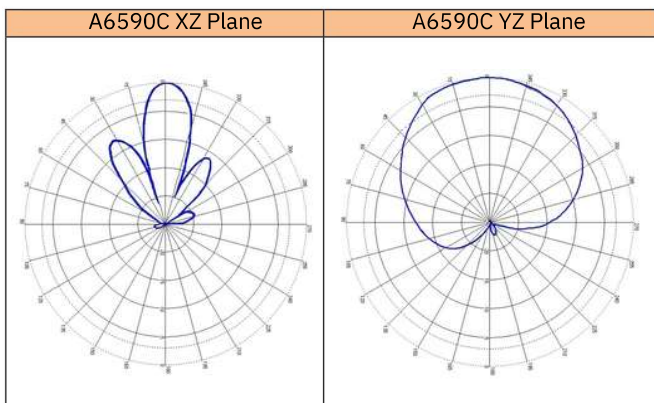
PHYSICAL / ENVIRONMENTAL SPECIFICATIONS

Dimensions: (L x W x D)	915 x 305 x 8mm 36.02 x 12.00 x 0.31"
Boxed Unit Dimensions: (L x W x D)	935 x 315 x 25mm 36.81 x 12.40 x 0.98"
Weight:	Net: 2.4kg / 5.29lbs. Gross: 2.8kg / 6.17lbs.
Radome Material:	Flame-Retardant ABS
Environmental Rating:	IP65
Operating Temperature: Storage Temperature:	-20° to +55°C / -30° to +65°C -4° to +131°F / -22° to +149°F
Connector Type & Cable Length:	RP-TNC plug, 2m (6') cable OR; SMA-F, 300mm (1') cable

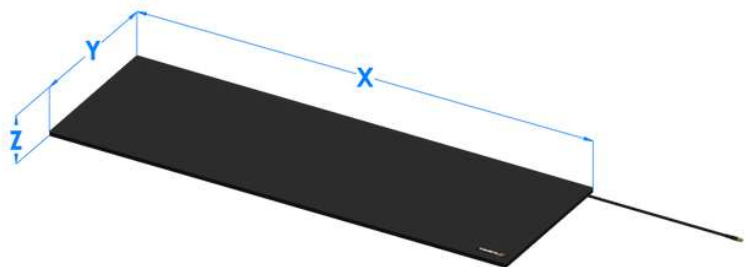
ELECTRICAL / ENVIRONMENTAL SPECIFICATIONS

Frequency Range:	902-928 MHz (FCC) / 865-868 MHz (ETSI)
Polarisation:	RHCP (Right hand circular polarized)
Far-Field Gain:	9dBiC typical
*Far-Field 3dB Beamwidth:	20° in XZ-plane, 80° in YZ-plane
VSWR:	1.4 typical
Front-To-Back Ratio:	24dB
Axial Ratio:	2dB typical
Nominal Impedance:	50Ω
Anti-Static Protection:	Yes, DC grounded
Antenna Detection:	10kΩ resistance
Maximum Input Power:	3W

RADIATING PATTERNS



AZIMUTH PLANES



APPLICATIONS

CONFERENCE ATTENDEE / PEOPLE TRACKING

This ultra-low profile antenna is designed to be installed flat on the floor and fit seamlessly within doorways and high-traffic indoor walkways, enabling efficient and discreet tracking of attendee movements.

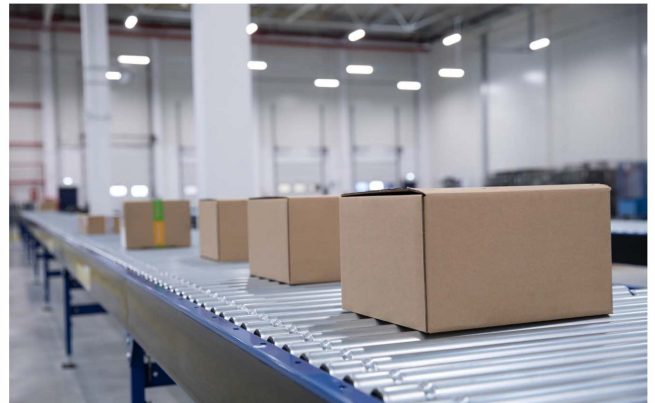
By capturing real-time data on attendee presence and flow, event organizers can gain valuable insights into traffic patterns, session popularity, and attendee engagement.



INDUSTRIAL CONVEYOR SYSTEMS

The A6590C is ideal for industrial conveyor system applications. Its slim form factor can be easily integrated beneath and/or above conveyor systems without disrupting operations.

The A6590C's large footprint, full-width coverage, and high-gain ensures precise asset tracking throughout automated workflows in industrial and logistic operations.



PAYLOAD INFORMATION



This underfloor antenna is designed to support moderate loads, such as hand trolleys and carts with rubber wheels, runners, bicyclists, and occasional vehicular traffic with pneumatic tires, etc.

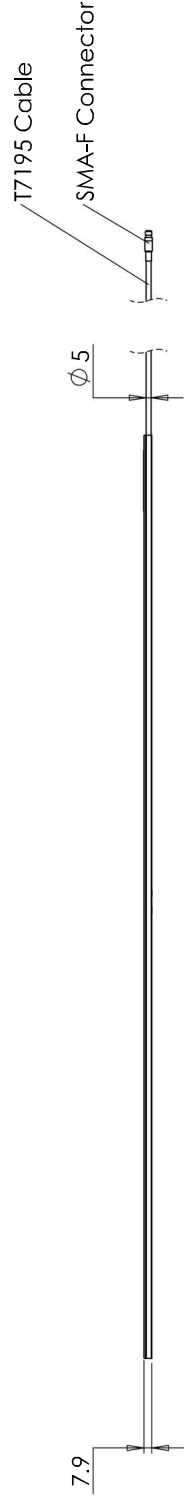
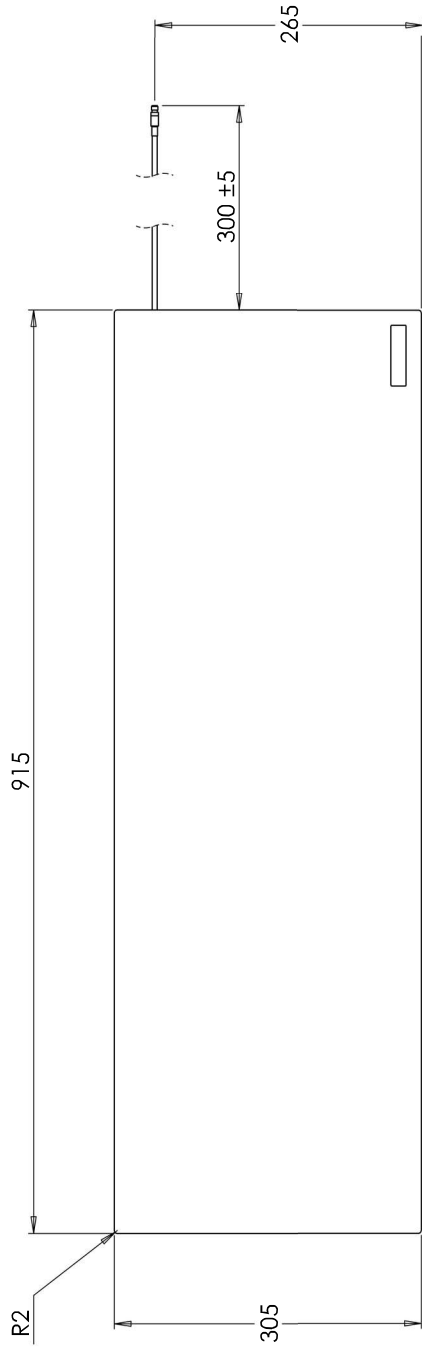
Care must be taken to ensure the antenna is installed on a smooth, hard, flat surface. Ensure that the antenna surface is not damaged by sharp objects such as steel-edged wheels, stone chips, or glass fragments, etc.



Any point load must not exceed 100 psi (7 kg/cm²), and the maximum distributed load on the mat should not exceed 1100lb (500kg).

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MECHANICAL DRAWING FOR THE A6590C CIRCULARLY POLARISED UNDERFLOOR ANTENNA



THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TIMES-7 LTD. ANY REPRODUCTION IN ANY FORM WITHOUT THE WRITTEN PERMISSION OF TIMES-7 IS PROHIBITED.

DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. TOLERANCES: NO DECIMAL PLACES ± 0.8



DESCRIPTION
A6590C Circularly Polarized Antenna

DRAWN BY:
Maria Price

DATE:
26-10-23

SIZEPART NO.
A3 71324 (ETS), 71325 (FCC)

REV
C

DATE:
26-10-23

APPROVED BY:
Peter Wilcock

DO NOT SCALE DRAWING

SHEET 1 OF 1