

### ABOUT TIMES-7

We are a high-tech company specializing in the design and manufacture of RAIN (UHF) 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 famous for their quality and performance.

We are based in Lower Hutt, New Zealand, but our reach extends worldwide as we export our products through our authorized partner network.

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

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

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The A6590C Circularly Polarized Ground Antenna

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, band, cable type & part number**

*Antenna Product Code	Band	Part Number
A6590C	ETSI 865-868 MHz	71324
A6590C	FCC 902-928 MHz	71325
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](#)

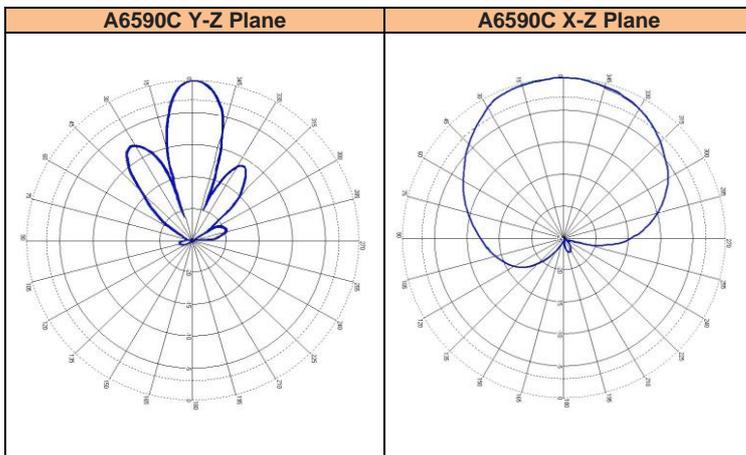
## Physical / Environmental Specifications

<b>Unboxed Dimensions:</b>	915 x 305 x 8mm
<b>*Length (x) x Width (y) x Depth (z)</b>	36.02 x 12.00 x 0.31"
<b>Boxed Unit Dimensions:</b>	935 x 315 x 25mm
<b>(L x W x D)</b>	36.81 x 12.40 x 0.98"
<b>Weight:</b>	Net: 2.4kg / 5.29lbs. Gross: 2.8kg / 6.17lbs.
<b>Radome Material:</b>	Flame retardant ABS
<b>Environmental Rating:</b>	IP65
<b>Operating / Storage Temperature:</b>	-20° to +55°C / -30° to +65°C -4° to +131°F / -22° to +149°F
<b>Connector type:</b>	SMA female fly lead
<b>Cable Type / Length:</b>	2m cable to RP-TNC plug / (300mm / 1ft.) or 6ft

## Electrical Specifications

<b>Frequency Range:</b>	865-868 MHz / 902-928 MHz
<b>Polarization:</b>	RHCP (Right hand circular polarized)
<b>Far-Field Gain:</b>	9dBiC typical
<b>*Far-Field 3dB beamwidth:</b>	20° in XZ-plane, 80° in YZ-plane
<b>VSWR</b>	1.4 typical
<b>Front-To-Back Ratio:</b>	24dB
<b>Axial Ratio:</b>	2dB typical
<b>Nominal Impedance:</b>	5Ω
<b>Anti-Static Protection:</b>	Yes, DC grounded
<b>Antenna Detection</b>	10KΩ resistance
<b>Maximum Input Power:</b>	3W

## Radiating Patterns



## Azimuth Planes



## Applications

### Conference Attendee / People Tracking

Tracking attendees at conferences, trade shows, and other business events using the A6590C antenna can be a great way to obtain valuable data. The A6090C is a high-performance UHF RFID ground antenna, perfect for people tracking applications.



### Race & Event Timing

The A6090C antenna is a versatile solution ideal for both indoor and outdoor settings where an ultra-low profile, high-performance antenna is needed, capable of discreet concealment beneath mats or other coverings. For more information on this, please get in touch with the team at Times-7.



## Payload Information

This ground 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 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/cm<sup>2</sup>), and the maximum distributed load on the mat should not exceed 1100lb (500kg).

## Installation Information

Ensure that only finger tightness is used for the SMA connector. The use of tools to tighten the connector will apply excessive force and will damage the connector.

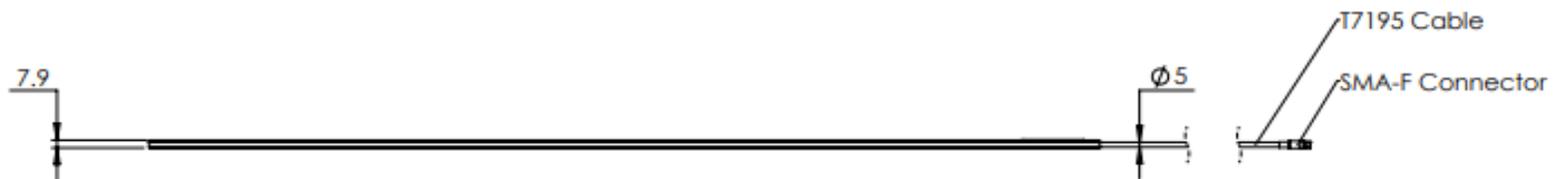
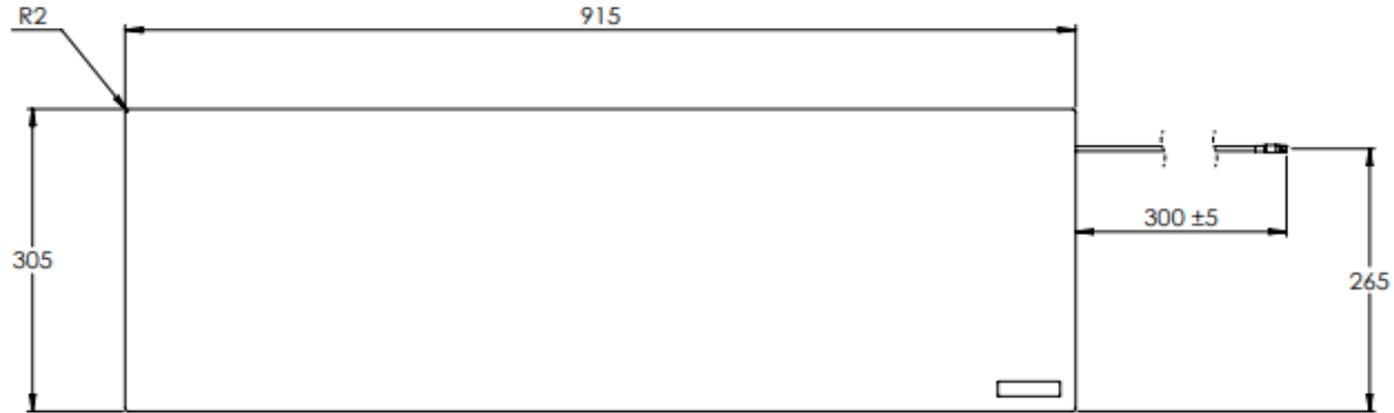
Avoid any excessive pulling force on the cable and be mindful of its bend radius to prevent damage and ensure proper functioning.

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# Mechanical Drawing for the A6590C Circularly Polarized Antenna



<small>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.</small>		<small>DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED TOLERANCES: NO DECIMAL PLACES ± 1 ONE PLACE DECIMAL ± 0.8</small>				<b>DESCRIPTION</b> A6590C Circularly Polarized Antenna	
DRAWN BY: Maria Price		DATE: 26-10-23		SIZE <b>A3</b>		PART NO. 71324 (ETSI), 71325 (FCC)	
APPROVED BY: Peter Wilcock		DATE: 26-10-23		DO NOT SCALE DRAWING		REV <b>C</b> SHEET 1 OF 1	