ABOUT TIMES-7

We are a high-tech company specializing in the design and manufacture of RAIN (UHF) RFID antennas. Founded in 2006, Times-7 has developed the largest portfolio of fixed RAIN RFID reader antennas. Based in Lower Hutt, New Zealand we export all over the world through an authorized network.

Times-7 antennas are famous for their quality and performance.

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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150 mm / 5.9 in. square footprint

IP68 rating for permanent outdoor use and industrial applications

Aesthetically appealing design

Reliably reads up to >4 meters

The SlimLine™ A5020 CP

The A5020 Circularly Polarized antenna is a member of our A5020 family, a versatile range of high performing antennas for a variety of applications. Our A5020 antenna range includes some of our best-selling antennas because they are robust yet compact.

Equipped with the familiar and industry leading Times-7 ultra-low profile, the A5020 CP offers a compact footprint of only 150 mm / 5.9-inch square in a very smart-looking design.

With a significantly improved radiation pattern than most other antennas of similar size in the market, the A5020 CP antenna creates a new benchmark for multi-purpose UHF RFID antennas.

The A5020 range is built to Times-7's high standard for quality and ruggedness. Being rated IP68, the A5020 CP can be used for permanent outdoor applications.

As well as being durable, its pleasing and timeless design blends beautifully with most interiors and makes the A5020 CP very suitable for customer facing environments.

Ordering Information (please quote product code, band and part no.)

Antenna Product Code	Band	Part No.
A5020 CP	902-928 MHz / FCC	60010
A5020 CP	865-868 MHz / ETSI	60011

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

Physical / Environmental Specifications

|	
Dimensions (L x W x D)	150.7 mm x 149.4 mm x 14.5 mm 5.93" x 5.88" x 0.57"
Boxed Unit Dimensions (L x W x D)	180 mm x 155 mm x 25 mm 7.09" x 6.10" x 0.98"
Weight	Net: 0.23 kg / 0.51 lbs.; Gross: 0.28 kg / 0.62 lbs.
Radome Material and Color	UV Resistant and Fire-Retardant WHITE ABS
Environmental Rating	IP68
Operating and Storage Temperature	-30° to +65°C / -22° to +149°F
Mounting	Flush or 100 x 100 mm VESA mount using the four mounting holes
Connector Type / Position	SMA female (Jack) side connector
A5020 Flush Screws	30mm 8g Phillips, white wood screws

Electrical Specifications

Frequency Range	865-868 MHz (ETSI) / 902-928 MHz (FCC)
Polarization	RHCP (Right Hand Circular Polarized)
Far-field Gain	5 dBiC typical
Far-field 3dB beamwidth	105° in both planes typical
VSWR	1.4 typical
Front to back	-10 dB typical
Axial Ratio	2 dB typical
Nominal Impedance	50 Ω
Anti-static Protection	Yes, DC Grounded
Antenna Detection	10K Ω resistance
Maximum Input Power	3 W

Radiation Pattern

Antenna Planes

A5020CP XZ Plane	A5020CP YZ Plane
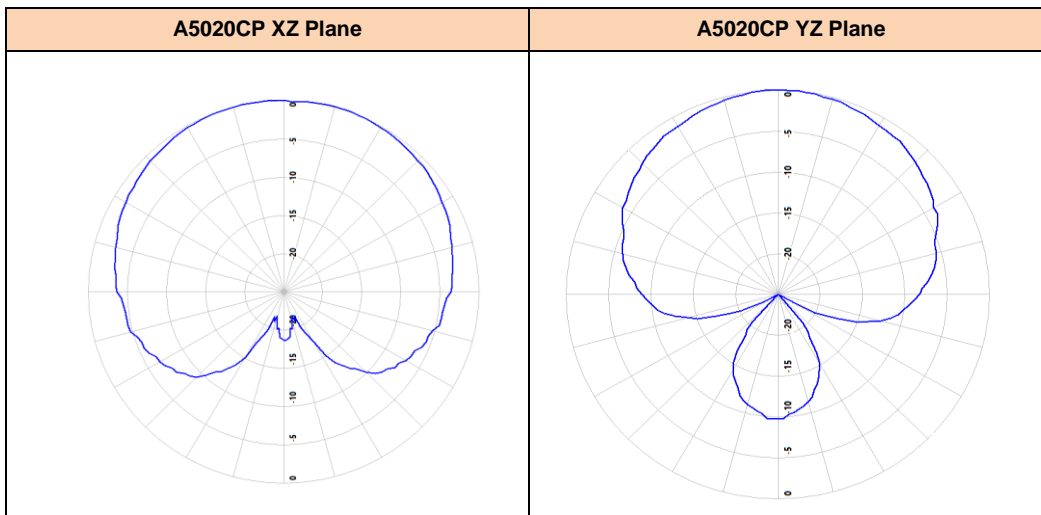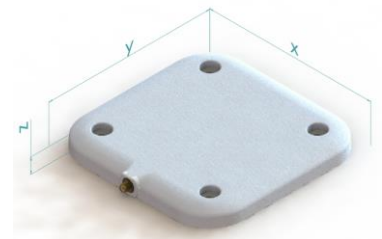
Application examples for the **A5020 CP**

Multi-Purpose

The A5020 CP is a rugged antenna meaning it is ideal for asset tracking and encoding RFID tags. This antenna has a typical read range distance of 4m allowing manufacturers, wholesalers and retailers, for example, to track their inventory throughout the supply chain, from the warehouse shelves all the way to the sales floor.

Waste Management

The A5020 is IP68 rated, meaning it is suitable for permanent outdoor installations. The 'all-plastic'-housing prevents the antenna from corroding. The antenna can also be cleaned with cleaning agents.

The ~100° beamwidth of the A5020 antenna makes applications like wheelie bin detection easy and straight-forward. The physical size of the antenna is small and thus installation in waste management trucks is hassle free.

Retail

The A5020 can easily be deployed in space constrained environments such as retail.

With its superb aesthetics and compact design, the A5020 antenna blends well into the retail back drop.

Mounting Information

The recessed corner mounting holes of the A5020 support 100 x 100mm VESA spaced mounting brackets as shown in the picture.

The innovative slim design of the A5020, equipped with an SMA connector, allows for totally flush mounting using the corner holes.

In situations where the antenna may be subject to stress on the connector or cable it is recommended to use our Connector Protection Backplate. These protect the connector from damage, especially when mounted on a bracket in free space. The Connector Protection Backplate can be used with right angled or straight cables.

Caution:
- 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 load or bending force from the cable on the connector.

For further information please refer to the drawings below.

Order Information

When ordering A5020 LX antennas please quote the product code, band & part no.

Antenna Product Code	Band	Part No.
A5020 CP	902-928 MHz / FCC	60010
A5020 CP	865-868 MHz / ETSI	60011

When ordering cable accessories please quote the product code, cable type, & part no.

Antenna Product Code	Band / Model	Part No.
A5020 LX	902-928 MHz / FCC	72386
A5020 LX	865-868 MHz / ETSI	72387
A5020 MR	902-928 MHz / FCC	72388
A5020 MR	865-868 MHz / ETSI	72389
A5020 NF	865-928 MHz / WB	72057

Cable Accessories Product Code	Cable Type	Part No.
Cable 2 m, SMA to RPTNC	T7 195 / 240 / 400	71436 / 71782 / 72042
Cable 4 m, SMA to RPTNC	T7 240 / 400	71784 / 72043
Cable 6 m, SMA to RPTNC	T7 240 / 400	71904 / 72044
Cable 8 m, SMA to RPTNC	T7 240 / 400	71788 / 72045

Low-Temperature and Water Resistant Cable Accessories Product Code	Cable Type	Part No.
Cable 2 m, RT SMA to RPTNC	T7 RG-142 type	72395
Cable 4 m, RT SMA to RPTNC	T7 RG-142 type	72396
Cable 6 m, RT SMA to RPTNC	T7 RG-142 type	72397
Cable 8 m, RT SMA to RPTNC	T7 RG-142 type	72398

Other Accessories	Compatibility	Part No.
A5020 Connector Protection Backplate	A5020 LP / CP / MR / NF	72394

View the Times-7 Cable Accessory datasheet here.
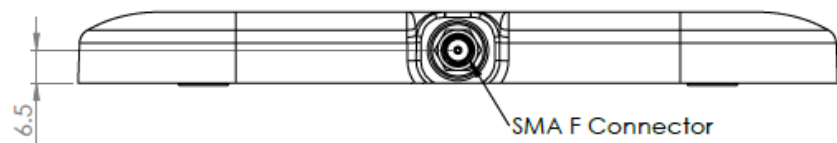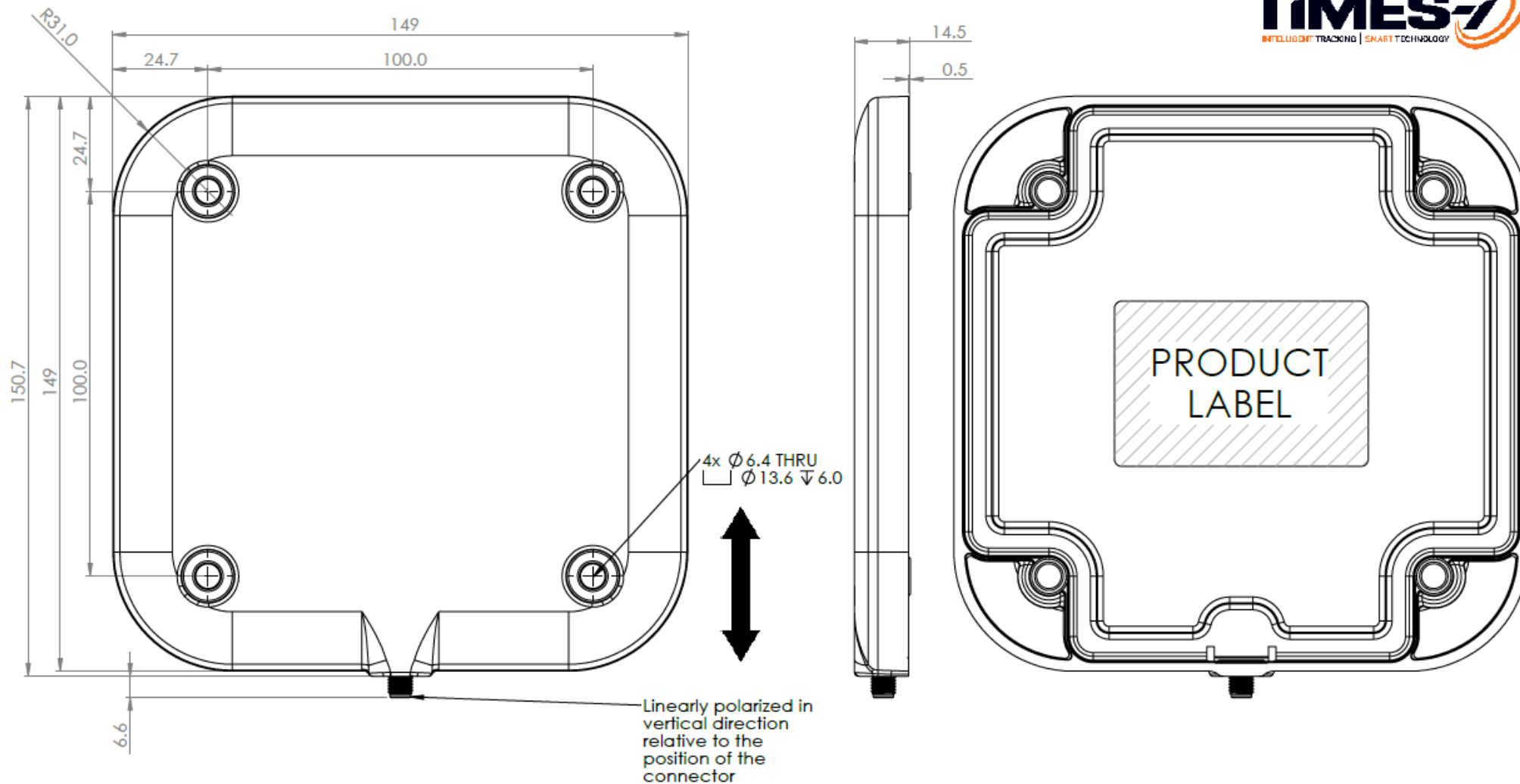
For additional information such as RoHS, CE, REACH or CAD models please contact us at sales@times-7.com.

Mechanical Drawing for the A5020 CP

TIMES-7
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R31.0

149
24.7
100.0

150.7
149
100.0

24.7

6.6

14.5
0.5

4x Ø6.4 THRU
Ø13.6 ↧6.0

Linearly polarized in vertical direction relative to the position of the connector

PRODUCT LABEL

6.5

SMA F Connector

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DIMENSIONS ARE IN mm
UNLESS OTHERWISE SPECIFIED
TOLERANCES:
NO DECIMAL PLACES ± 1
ONE PLACE DECIMAL ± 0.5

DESCRIPTION				
	A5020 CP Far Field Antenna			
DRAWN	SIGNATURE	DATE		
C Wilson		02/09/21		
APPROVED	SIGNATURE	DATE	SIZE	PART NO.	REV

SIZE	PART NO.	REV
A3	60010 (FCC) / 60011 (ETSI)	D

DO NOT SCALE DRAWING   SHEET 1 OF 1

V1

Mechanical Drawing for the Connector Backplate

150.0

100.0

25.0

25.0

150.0

100.0

24

Ø6.0

R31.0

R10

10.0

28.0

304 Stainless Steel

1.5

26

19
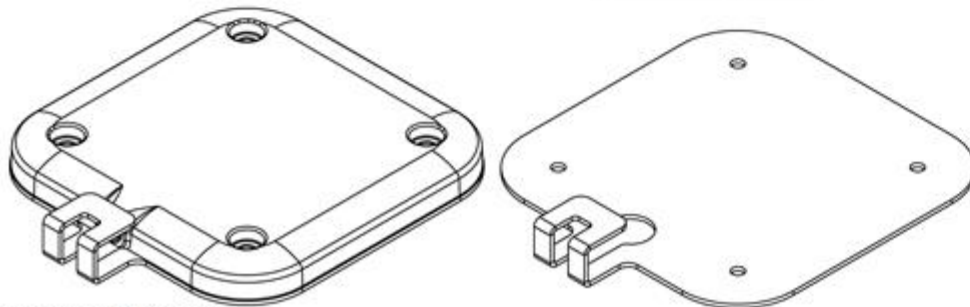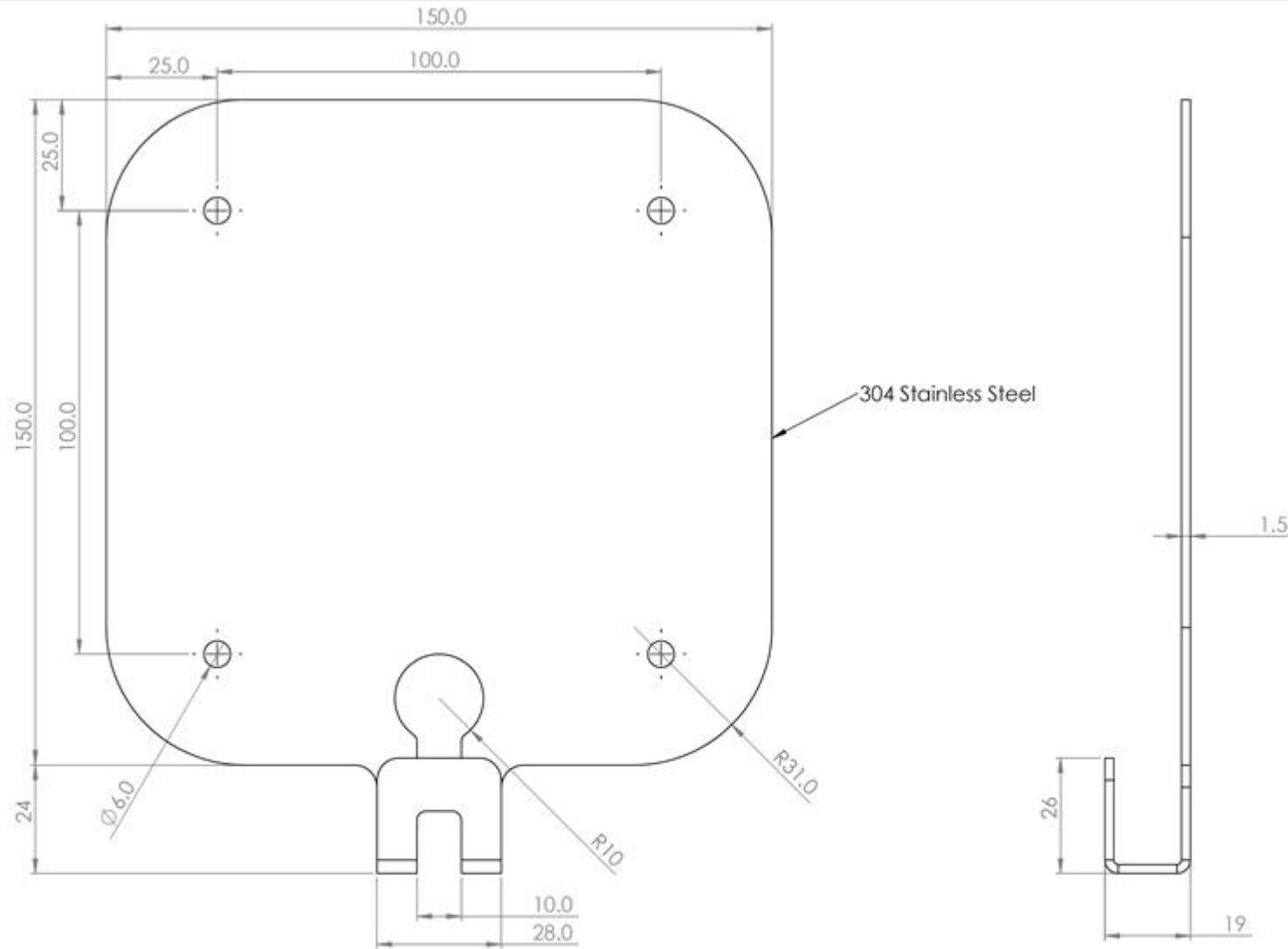
Shown with A5020 attached

DIMENSIONS ARE IN mm
UNLESS OTHERWISE SPECIFIED
TOLERANCES:
NO DECIMAL PLACES ± 1
ONE PLACE DECIMAL ± 0.5

DESCRIPTION	A5020 Connector Protection Backplate	
DRAWN	SIGNATURE	DATE
R Lopez		04/08/20
APPROVED	SIGNATURE	DATE
C Wilson		04/08/20

SIZE: A3

PART NO. 72308-FG

REV: A

DO NOT SCALE DRAWING

SHEET 1 OF 1

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