A5020 MR
SlimLine™ Mid Range UHF ANTENNA

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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The SlimLine™ A5020 MR

150 mm / 5.9 in. square footprint

IP68 rating for permanent outdoor and industrial applications

Aesthetically appealing design

Mid-range, typically 1.5m read range

The A5020 Mid Range 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 MR offers a compact footprint of only 150 mm / 5.9-inch square in a very smart-looking design.The A5020 MR is designed to operate in complex and busy environments where stray reads are a risk to productivity and accuracy. It is specifically tuned to read just beyond the near field zone ensuring things in the mid-range proximity of up to 1.5m are accurately tracked, while ignoring items further away.

The A5020 range is built to Times-7's high standard for quality and ruggedness. Being rated IP68 the A5020 MR can also 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 MR very suitable for customer facing environments.

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

Antenna Product Code	Band	Part No.
A5020 MR	902-928 MHz / FCC	72388
A5020 MR	865-868 MHz / ETSI	72389

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

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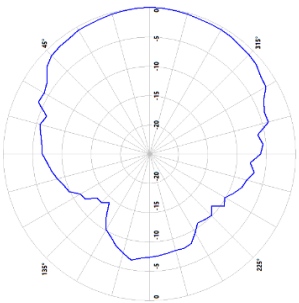
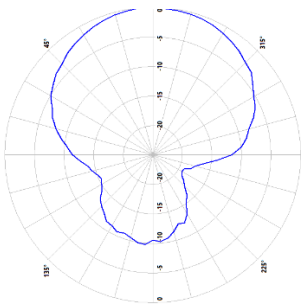
Physical / Environmental Specifications

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: 0.20kg / 0.44 lbs. Gross: 0.25kg / 0.55 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 colored wood screws

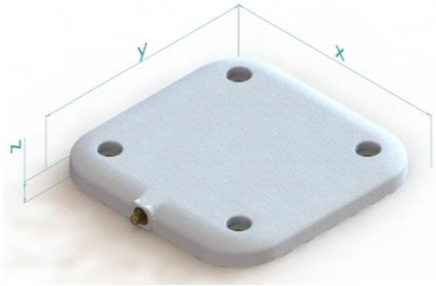
Electrical Specifications

Frequency Range	865-868 MHz (ETSI) / 902-928 MHz (FCC)
Polarization	RHCP (Right Hand Circular Polarized)
Far-field Gain	-3 dBiC typical
Far-field 3dB beamwidth	115° in XZ and 105° in YZ plane
VSWR	1.8 typical
Front to back	-8 dB
Axial Ratio	2.5 dB typical
Nominal Impedance	50 Ω
Anti-static Protection	Yes, DC Grounded
Antenna Detection	10K Ω resistance
Maximum Input Power	3 W

Radiation Pattern

A5020MR XZ Plane	A5020MR YZ Plane
	

Antenna Planes



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Application examples for the **A5020 MR**

Kiosk / Self Check Out / POS

The A5020 MR antenna's lower gain RF radiation can be confined to a smaller zone, while operating at low power.

The antenna is best suited for kiosks and POS like applications where a confined read zone is a key requirement. The antenna is aesthetically appealing and fits into every environment.

Sorting and Packaging Conveyer

The A5020 MR antenna has a medium range of up to 1.5 meters which means it is ideal for scanning intended goods that are moving on a conveyor belt.

It is rugged and can handle knocks should the assets jitter while in motion.

Cabinetry and Shelves

The A5020 MR has lower-gain compared to the A5020 CP antenna yet it has the potential to read across a cabinet shelf without extending its reads beyond the intended zone.

Authorized Reseller: RFID4UStore
www.rfid4ustore.com
1-408-739-3500

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Mounting Information

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

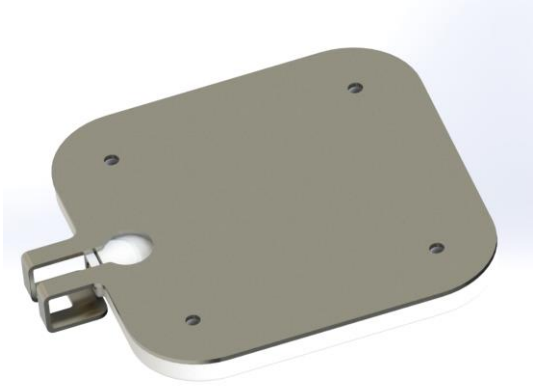
The innovative slim design of the A5020, equipped with an SMA connector, allows for totally flush mounting using the corner holes.

In situations where the antenna may be subject to stress on the connector or cable it is recommended to use our Connector Protection Backplates. 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.



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Order Information

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

Antenna Product Code	Band	Part No.
A5020 MR	902-928 MHz (FCC)	72388
A5020 MR	865-868 MHz (ETSI)	72389

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

Antenna Product Code	Band / Model	Part No.
A5020 CP	902-928 MHz / FCC	60010
A5020 CP	865-868 MHz / ETSI	60011
A5020 NF	865-928 MHz / WB	72057
A5020 LX	902-928 MHz / FCC	72386
A5020 LX	865-868 MHz / ETSI	72387

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.

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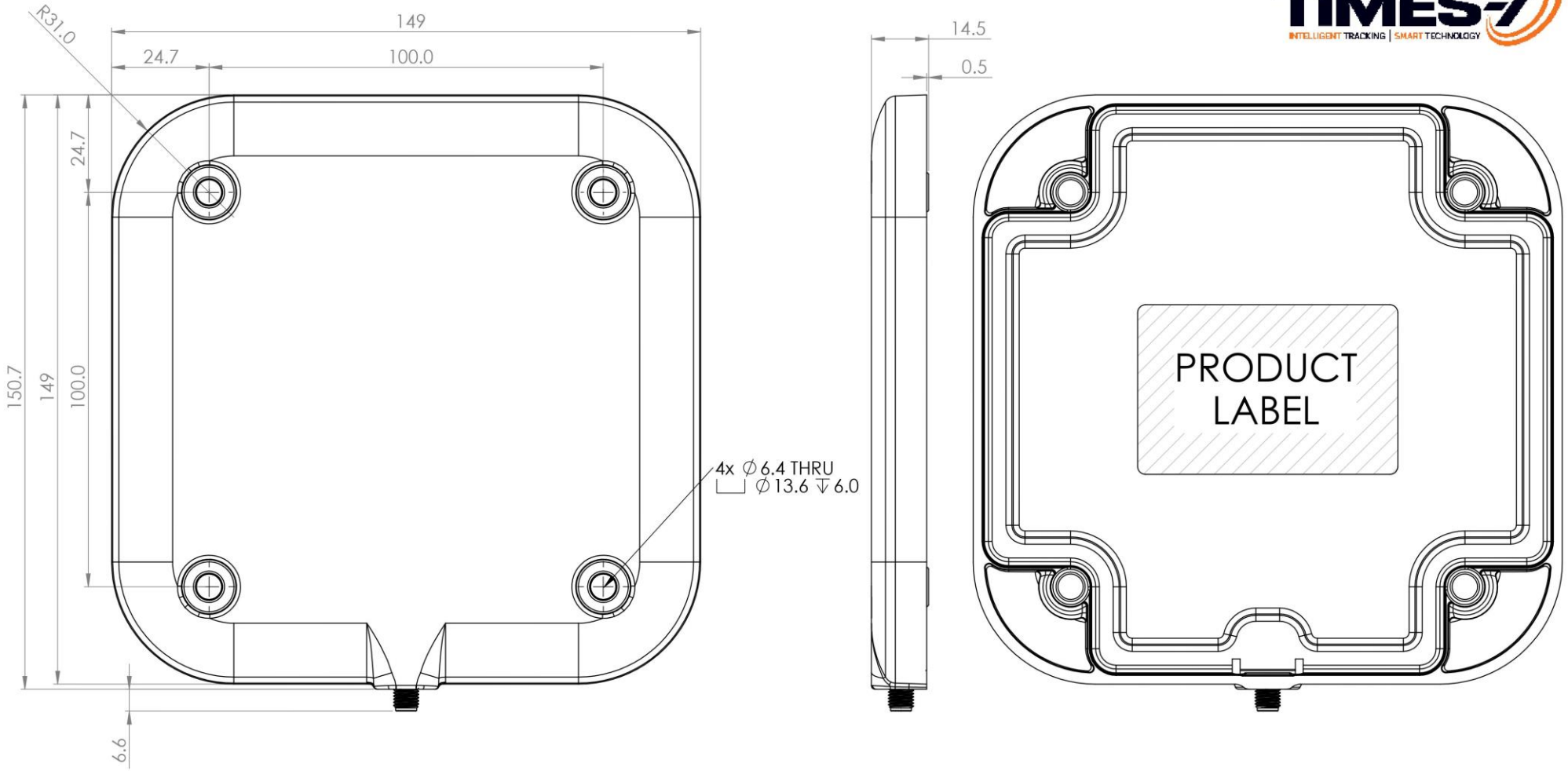
Datasheet V1-09/21-5020MR

Mechanical Drawing for the A5020 MR



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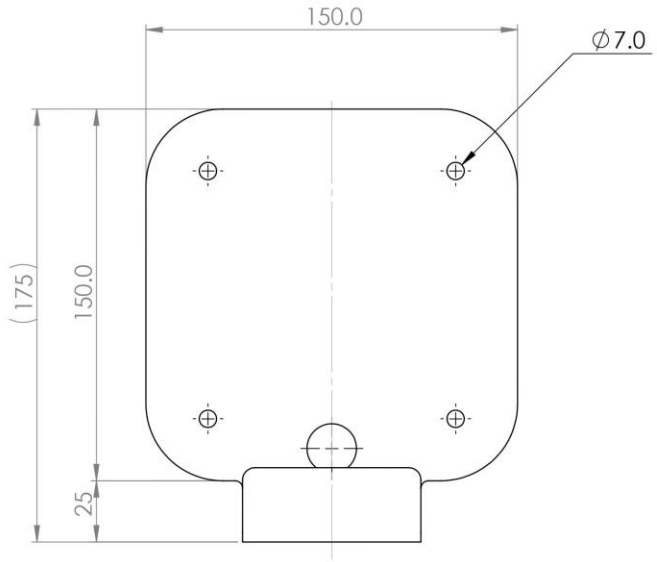
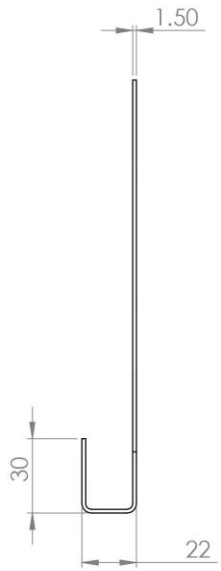
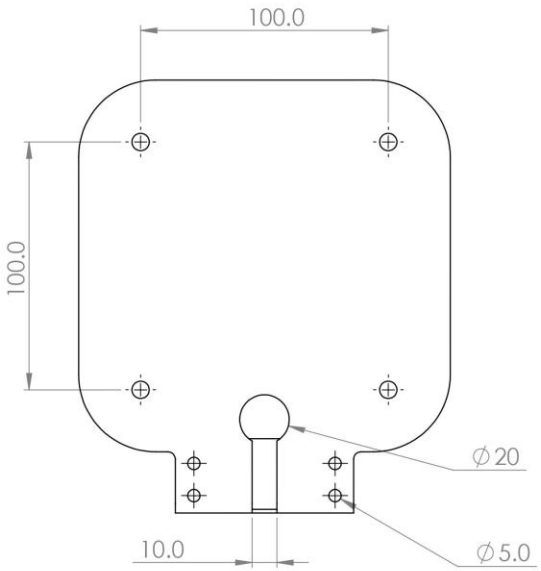
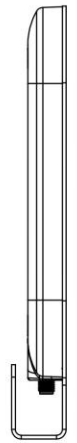
DRAWN: C Wilson	SIGNATURE	DATE: 31/08/21	SIZE: A3 · PART NO.: 72389 (ETSI), 72388 (FCC) · REV: A
APPROVED: P Roling	SIGNATURE	DATE: 4/10/21	DO NOT SCALE DRAWING · SHEET 1 OF 1

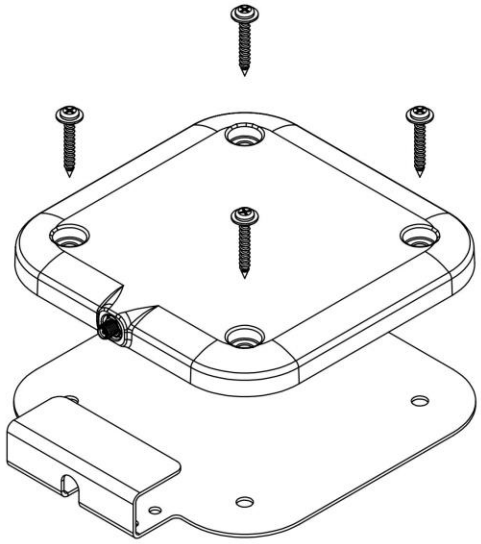
Mechanical Drawing for the Connector Backplate

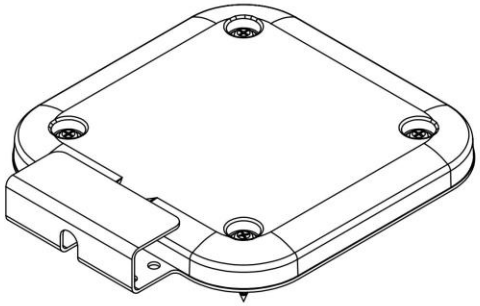












Shown fitted with
A5020
Antenna

Notes
1. Protection plate shown fitted to A5020 Antenna

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DRAWN RH	SIGNATURE	DATE 16-2-21	
UPDATED C Wilson	SIGNATURE	DATE 4/10/21	SIZE A3 / PART NO. 72394-FG / REV B
APPROVED P Roling	SIGNATURE	DATE 4/10/21	DO NOT SCALE DRAWING / SHEET 1 OF 1