Product Datasheet

A5010 Circularly Polarised Antenna

Times-7 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, we can design and manufacture customised antennas to meet your needs.

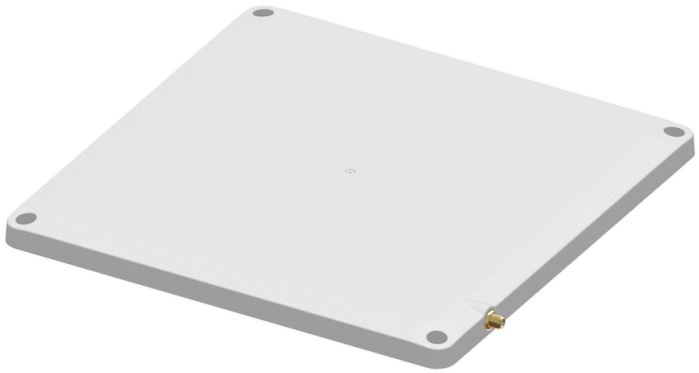
We are based in Lower Hutt, New Zealand, with a global reach as we export our products through our extensive authorised partner network.

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



A5010 Flush and Stud mounting available

The A5010 is a compact, high-gain far-field RFID antenna, offering reliable wide-area performance, IP67-rated durability, and a slim profile, the ideal general-purpose solution for both indoor and outdoor applications.

The A5010 is a versatile, high-performance antenna from Times-7's flagship range. With its ultra-slim 14mm profile, symmetrical beam pattern, and integrated metal backplate for extra durability, it's built for reliability across a wide range of applications, from shelving and cabinets to dock doors and conveyor systems.

ORDERING INFORMATION

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

Antenna	Frequency Range	Part Number
A5010 (Flush Mounted)	ETSI 865-868 MHz	60002
A5010 (Flush Mounted)	FCC 902-928 MHz	60001
A5010 (Stud Mounted)	ETSI 865-868 MHz	60004
A5010 (Stud Mounted)	FCC 902-928 MHz	60003

Mounting Accessories	Part number
A5010 Connector Protection Backplate	72400

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

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PHYSICAL / ENVIRONMENTAL SPECIFICATIONS

Dimensions: **(L x W x D)**	Flush: 250 x 250 x 14mm 9.85 x 9.85 x 0.55"	Stud: 250 x 250 x 30mm 9.85 x 9.85 x 1.18"
Boxed Unit Dimensions: **(L x W x D)**	Flush: 280 x 255 x 20mm 11.02 x 10.03 x 0.78"	Stud: 310 x 280 x 40mm 14.96 x 11.02 x 1.57"
Weight:	Net: 0.575kg / 1.26lbs.	Gross Flush: 0.728kg / 1.60lbs. Gross Stud: 0.695kg / 1.53lbs.
Radome Material:	Flame-retardant and UV-resistant ABS	
Environmental Rating:	IP67	
Operating / Storage Temperature:	0° to +65°C 32° to +149°F	
Mounting:	Flush or Stud (100 x 100 VESA mounted)	
Connector Type:	SMA jack, side exit	
A5010 Flush Screw	Screw #8x1" stainless steel phillips white pan head (x4)	
A5010 Stud Screw	M4 ZP nut (x4), M4 ZP spring washer (x4), M4 ZP flat washer (x4)	
RoHs & REACH Compliant	Yes	

ELECTRICAL SPECIFICATIONS

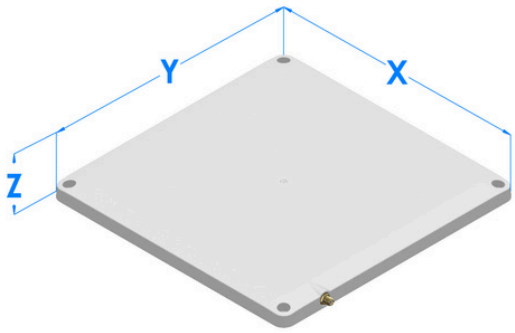
Frequency Range:	865-868 MHz (ETSI) / 902-928 MHz (FCC)
Polarisation:	Right hand circularly polarised
Far-Field Gain:	8.5dBiC typical
***Far-Field 3dB Beamwidth:**	68° in both planes
VSWR:	1.3 typical
Front-To-Back Ratio:	-20dB
Axial Ratio:	1dB typical
Nominal Impedance:	50Ω
Anti-Static Protection:	Yes, DC grounded
Antenna Detection:	50Ω resistance
Maximum Input Power:	3W

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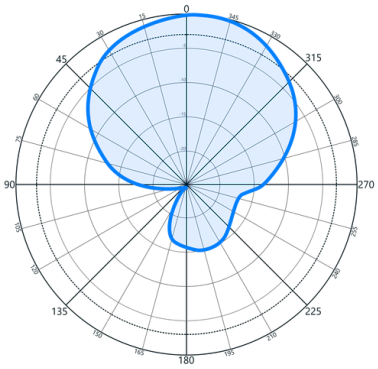
Product Datasheet

A5010 Circularly Polarised Antenna

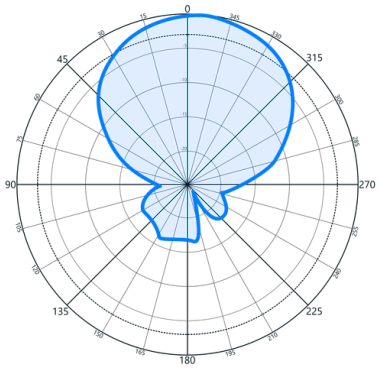
AZIMUTH PLANES



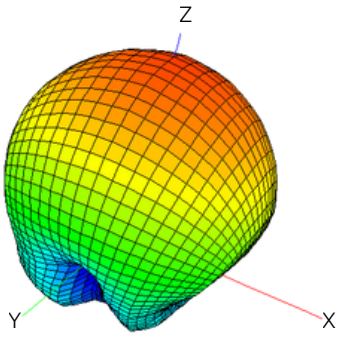
RADIATING PATTERNS



A5010 XZ Plane



A5010 YZ Plane



3D E-Field Radiation

APPLICATIONS

Medical and Pharmaceutical



High-value pharmaceutical assets can be tracked in fridges using the A5010 antenna. The slim design maximizes the usable space inside a refrigerator. The antenna can handle general-purpose cleaning agents making it suitable for hospitals, medical laboratories, research industries, and pharmaceutical labs.

Retail



The A5010 can easily be deployed in space constrained environments such as retail. With its superb aesthetics and compact design, the A5010 antenna blends well into retail back drops.

Warehousing



The A5010 can be deployed on different warehouse shelves and environments. The A5010's slim design integrates well into a wide range of warehouse setups across diverse industries.

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

sales@times-7.com | +64 4 974 6566 | www.times-7.com

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MOUNTING AND INSTALLATION INSTRUCTIONS

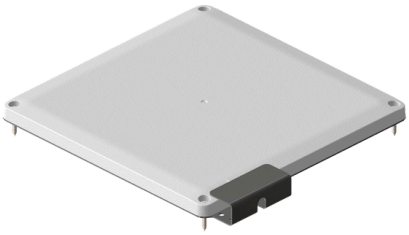
- The A5010 is designed to support either flush or VESA mounting. To accommodate both, it offers compatibility with either flush or studded backplates.
- With part numbers 60001 and 60002, flush mounting can be achieved by securing screws or bolts through the corner holes in the housing or alternatively, using double-sided industrial tape on the backplate.
- On part numbers 60003 and 60004, the studs are spaced at 100 x 100mm (3.94”), making them compatible with standard VESA brackets offered by various suppliers. This product includes a fastener pack (more information is found in the physical / environmental specifications table).

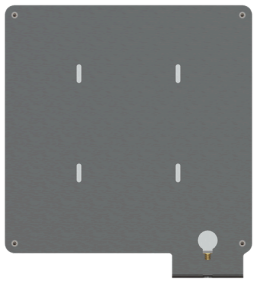


A5010 Stud Antenna on a VESA bracket available from a wide range of suppliers

CONNECTOR AND CABLE PROTECTION

- In situations where stress may impact the antenna’s connector or cable, we recommend using our Connector Protection Backplate. This backplate safeguards the connector, especially when the antenna is mounted on a bracket in free space. It is compatible with both right-angled and straight connector cables.
- 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.





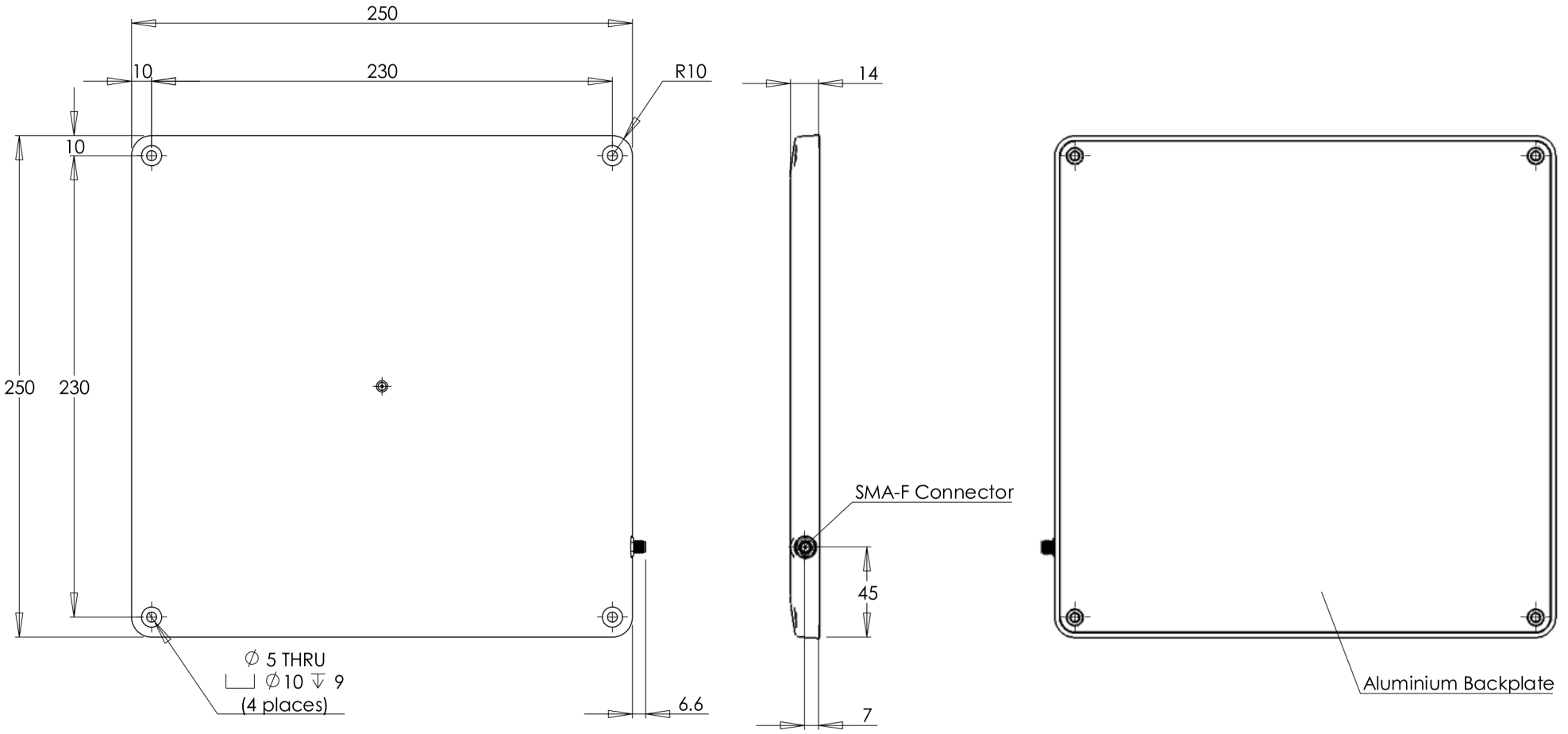
Refer to page 1 for ordering information for the Connector Protection Backplate

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MECHANICAL DRAWING FOR A5010 CIRCULARLY POLARISED FLUSH ANTENNA



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

DRAWN BY: M. Price	DATE: 7-3-25
APPROVED BY: P. Wilcock	DATE: 13-3-25

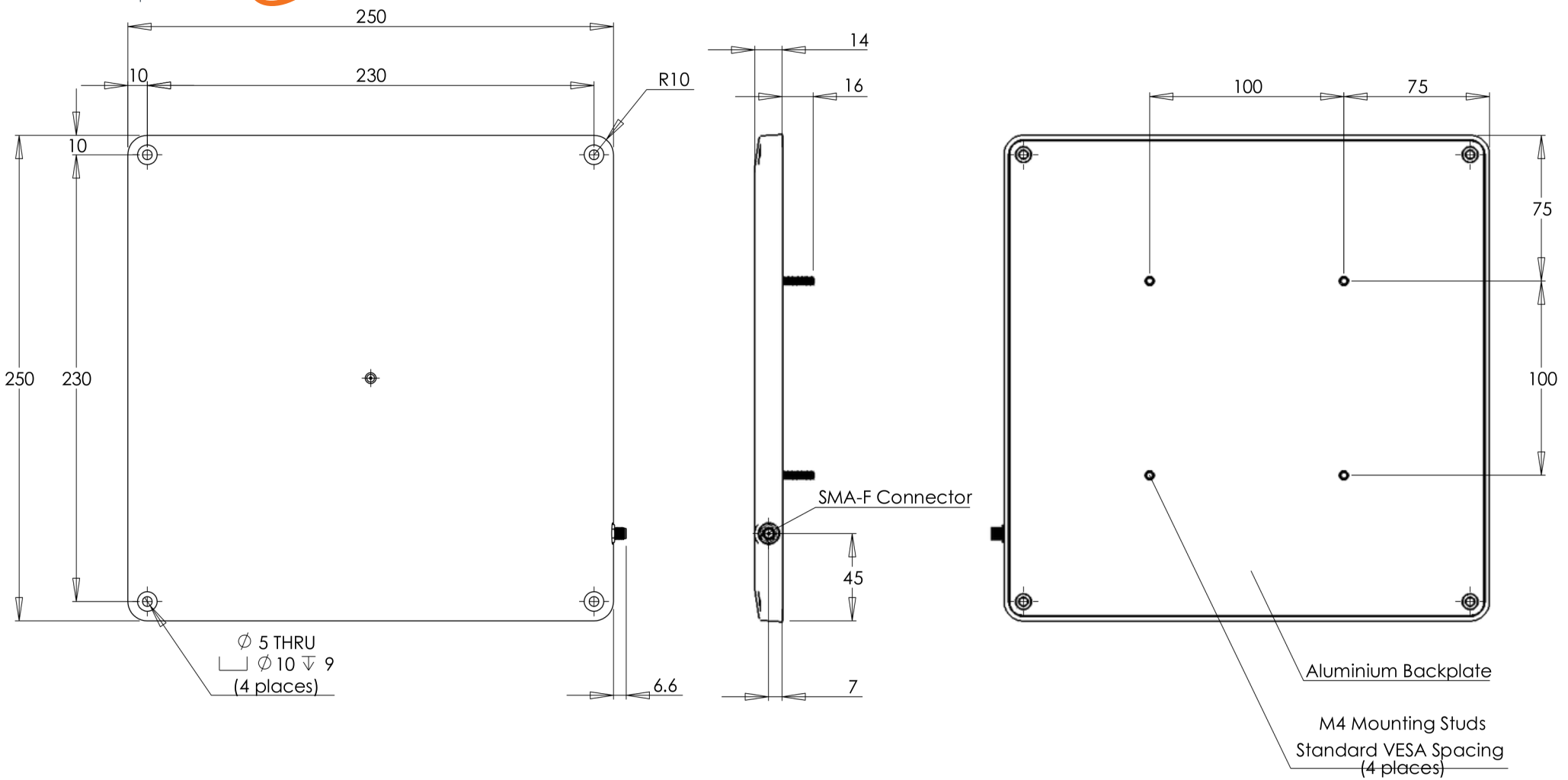
DESCRIPTION: A5010 Circularly Polarised Flush Antenna

SIZE	PART NO.	REV
A3	60001 FCC, 60002 ETSI	A

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MECHANICAL DRAWING FOR A5010 CIRCULARLY POLARISED FLUSH ANTENNA



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DESCRIPTION: A5010 Circularly Polarised Stud Antenna

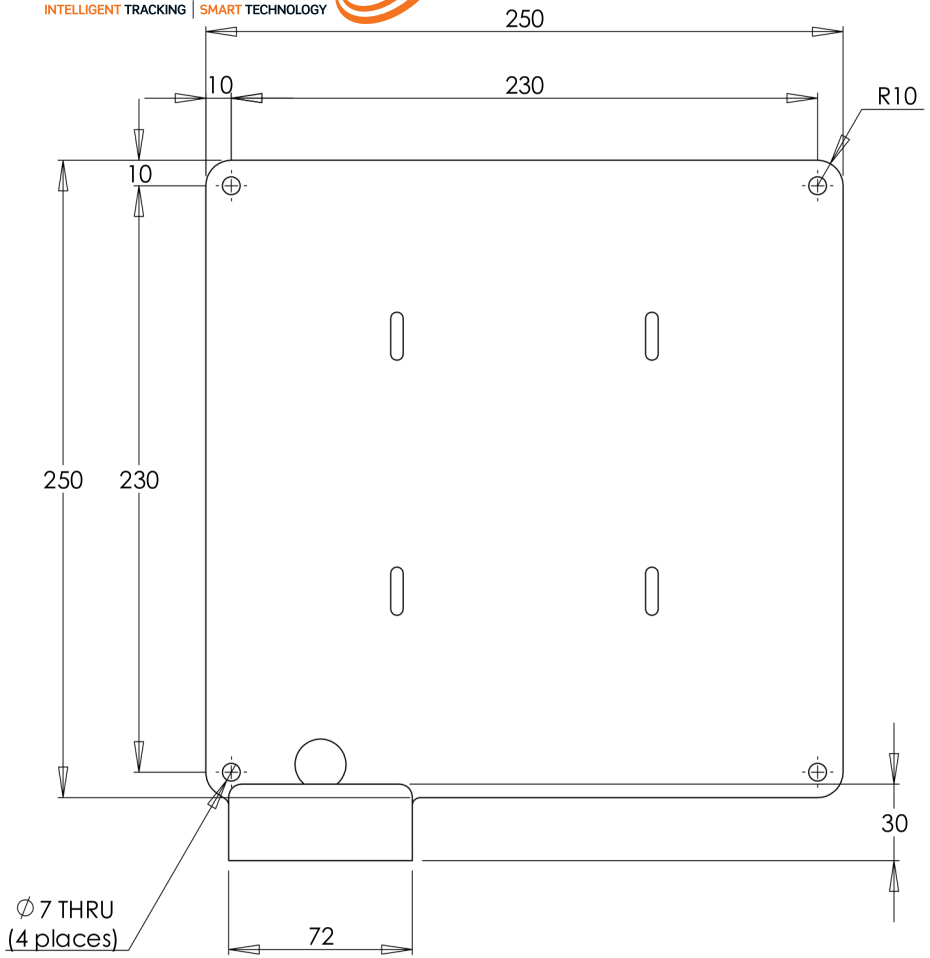
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APPROVED BY:	P. Wilcock	DATE:	13-3-25

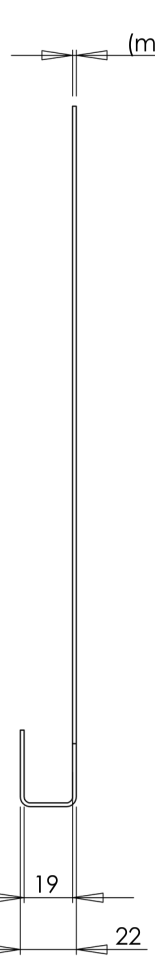
SIZE	PART NO.	REV
A3	60003 FCC, 60004 ETSI	A

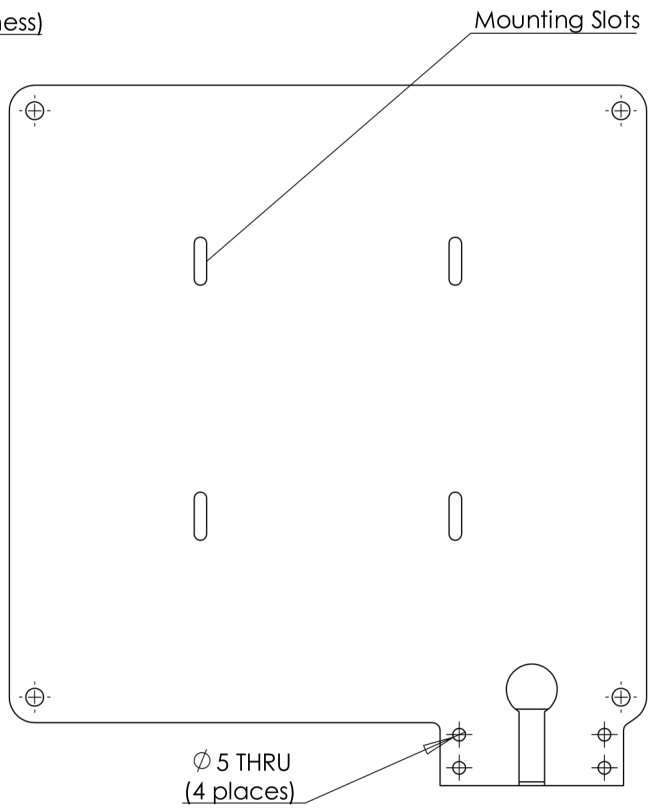
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DESCRIPTION
A5010 Connector Protection Backplate

DRAWN BY: M. Price	DATE: 7-3-25
APPROVED BY: P. Wilcock	DATE: 13-3-25

SIZE A3 | PART NO. 72400 | REV A

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