

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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New Zealand

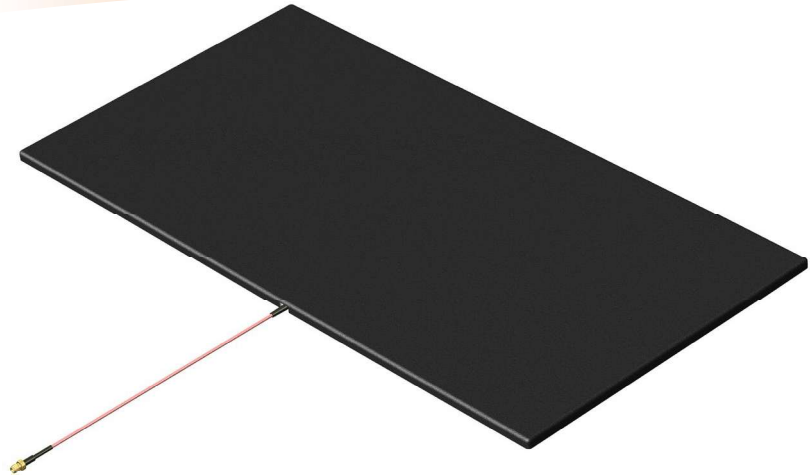
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Patent Info: www.times-7.com/patents



**Formed and flat radome available
(pictured: formed radome)**

Introducing the A5060 Circularly Polarized (CP) High Gain Antenna that redefines RFID technology. With an ultra-low profile and an impressive read range of up to 10m (33'), the A5060 is engineered to deliver exceptional performance in demanding industrial environments.

The A5060 is designed with a multi-element array to avoid distortion for maximum readability in a highly reflective and densely populated tag environment. This makes the A5060 ideal for industrial portal applications.

Measuring 604 x 304 x 8.6mm (23.78 x 11.97 x 0.34") in standard size, the A5060 offers versatility in installation. You can easily mount it behind ceiling tiles, in cabinets, or use it to cover large benchtops. The six integrated mounting holes allow for flush mounting, while the option to VESA mount using the Times-7 Mounting Plate adds further flexibility to your setup.

Ordering Information

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

| *Antenna Product Code | Band | Part Number | |
|-------------------------------------|--------------------|-----------------------|-------|
| | | Black | White |
| A5060 Formed Radome (standard size) | ETSI 865-868 MHz | 75236 | 75237 |
| A5060 Formed Radome (standard size) | FCC 902-928 MHz | 75238 | 75239 |
| A5060 Flat Radome | ETSI 865-868 MHz | 71876 | |
| A5060 Flat Radome | FCC 902-928 MHz | 71875 | |
| *Mounting Accessories Product Code | Band | Part Number | |
| Mounting Plate (A5060) | N/A | 72095 | |
| *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](#)

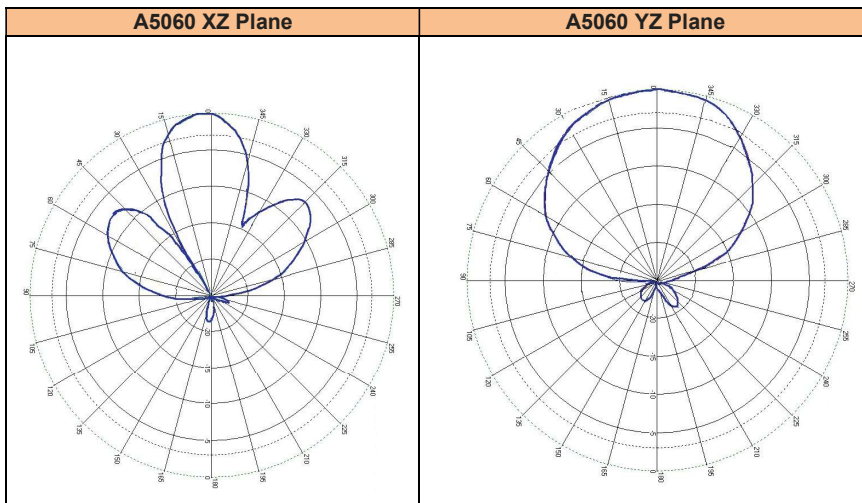
Physical / Environmental Specifications

| | |
|---|---|
| Unboxed Dimensions: *Length (x) x Width (y) x Depth (z) | 604 x 304 x 8.6mm 23.78 x 11.97 x 0.34" |
| Boxed Unit Dimensions: (L x W x D) | 650 x 360 x 30mm 25.59 x 14.17 x 1.18" |
| Weight: | Net: 1.48kg / 3.3lbs. Gross: 1.79kg / 3.9lbs. |
| Radome Material: | Flame retardant ABS |
| Environmental Rating: | IP54 |
| Operating / Storage Temperature: | -20° to +55°C / -30° to +60°C -4° to +131°F / -22° to +140°F |
| Mounting: | Integrated flush mounting holes or VESA mount |
| Connector Type: | SMA female fly lead |
| Cable Type / Length: | RG316 / 270mm / 10.6" |

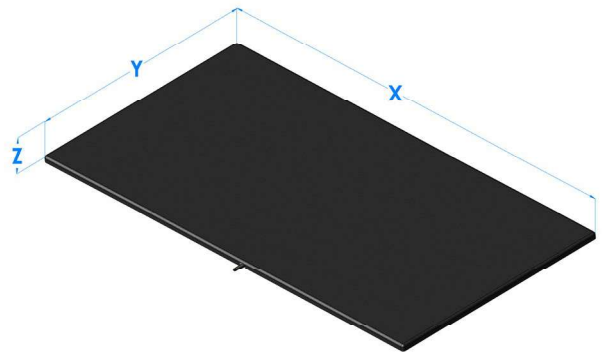
Electrical Specifications

| | |
|----------------------------------|--|
| Frequency Range: | 865-868 MHz (ETSI) / 902-928 MHz (FCC) |
| Polarization: | Right hand circularly polarized (RHCP) |
| Far-Field Gain: | 10.5dBiC typical |
| *Far-Field 3dB Beamwidth: | 25° in XZ-plane, 60° in YZ-plane |
| VSWR: | 1.4 typical |
| Front-To-Back Ratio: | -25dB |
| Axial Ratio: | 2dB typical |
| Nominal Impedance: | 50Ω |
| Anti-Static Protection: | Yes, DC grounded |
| Antenna Detection: | 10KΩ resistance |
| Maximum Input Power: | 3W |

Radiating Pattern



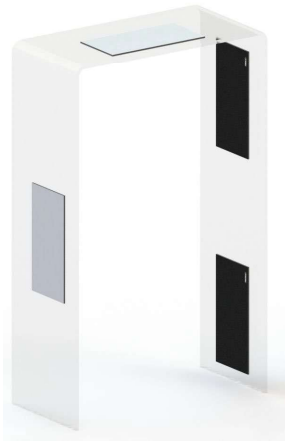
*Azimuth Planes



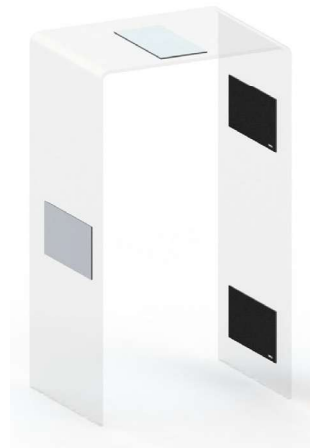
Applications

Industrial Portal

The IP54 rating and the 10.5dBiC gain makes this antenna highly suitable for industrial applications. A densely packed asset with numerous tags can be identified accurately and efficiently. A stand-alone portal can be realized with four A5060 antennas (pictured below). All possible tag orientations will be captured due to its circular polarization and positions. The antennas on the sides are offset so that they do not face each other and induce maximum coverage within the portal. Almost all assets can be tracked with greater accuracy using our A5060 antenna.



The vertical configuration is recommended for high density asset tracking (such as palletized boxes, a trolley of laundry goods, etc.,) where you will need a larger RF zone to efficiently read all the tagged items. The RF read window is expanded in and out of the portal.



The horizontal configuration is recommended to avoid stray reads due to a confined RF read window. The RF read zone is restricted within the width of the portal. Assets that are not densely packed can be read efficiently using this configuration.

Laundry Applications

With its high gain, the A5060 antenna has the potential to read through densely packed laundry items. The antennas can either be configured as a standalone industrial portal to track trolleys full of laundry goods, or they can be used in a conveyor to track movement. The antenna's confined RF emission eliminates stray tag reads. The antennas can also be used over bench tops in packing/folding stations.



Vehicle Tolling / Access Control

The A5060's 10.5dBiC gain is powerful enough to read vehicular tags, e.g., embedded in the windscreen or the number plate, from greater distances. The 25° narrow beam can be used to create confined RF zones for each lane.



Tool Tracking

The A5060 antenna is an excellent option for tracking tools within your tool cabinetry. In environments with highly reflective metallic surfaces, traditional RFID antennas often encounter challenges. However, the A5060 stands out due to its multi-element design, resulting in reduced sensitivity to metallic objects. To ensure efficient reading, it's recommended to use specially designed 'on-metal' RFID tags and position the items within the line of sight of the antenna.



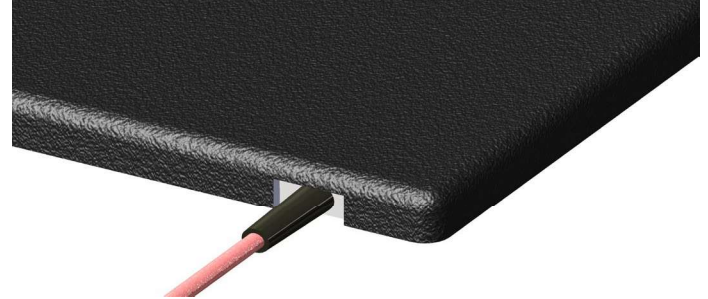
Warehouse Shelving Application

The A5060's footprint fits both metric and imperial shelves. The slim antenna offers a snug fit inside the shelf without engulfing a lot of useful space. The multi-element antenna design keeps the antenna's beam active in every nook and corner. Assets on the shelves can be monitored in real-time with great accuracy.



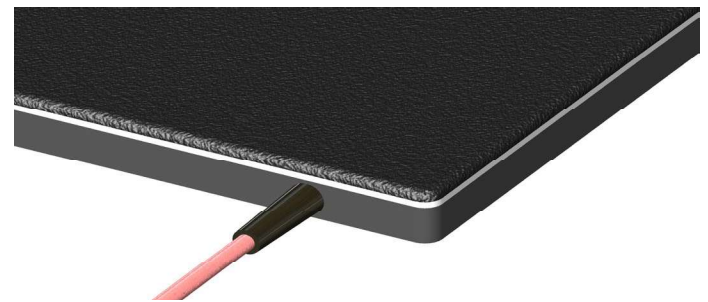
Formed Radome

Crafted through thermoforming, the formed radome has been engineered to deliver a seamless finish to the antenna. Its modern and sophisticated aesthetic is complemented by its ability to ensure optimal protection.



Flat Radome

The flat radome is recognized by its sleek and contemporary flat form, showcasing attention to detail in the way it is skillfully finished, resulting in a refined and modest appearance.



Note: These images illustrate the distinction between formed and flat radomes and do not depict the actual product.

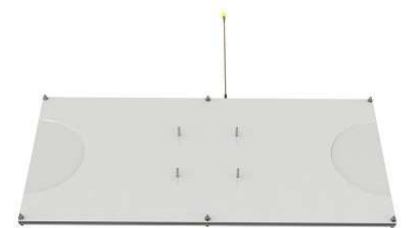
Mounting Information

Flush Mount

The A5060 antenna has 6 pre-drilled mounting holes on the rear side, which can be drilled completely through without damaging the antenna.

Mounting Plate

The Times-7 Mounting Plate for the A5060 is designed to support a VESA plate. Each Mounting Plate comes with a screw kit.



For further instructions on how to flush mount the antenna, or attach to a mounting plate, please click [here](#).

Installation Instructions

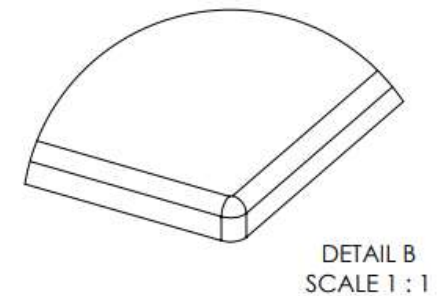
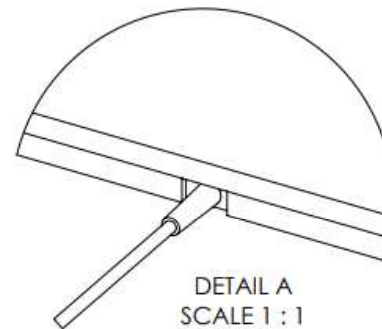
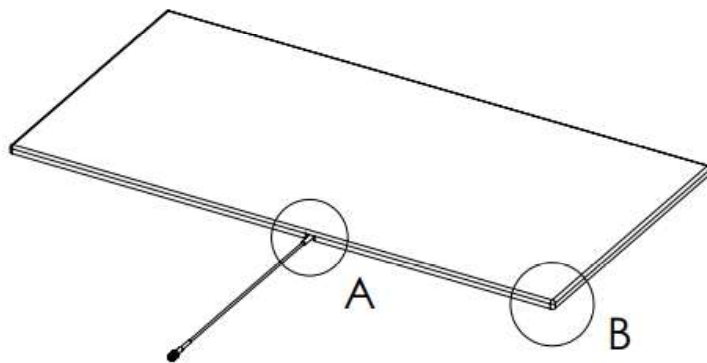
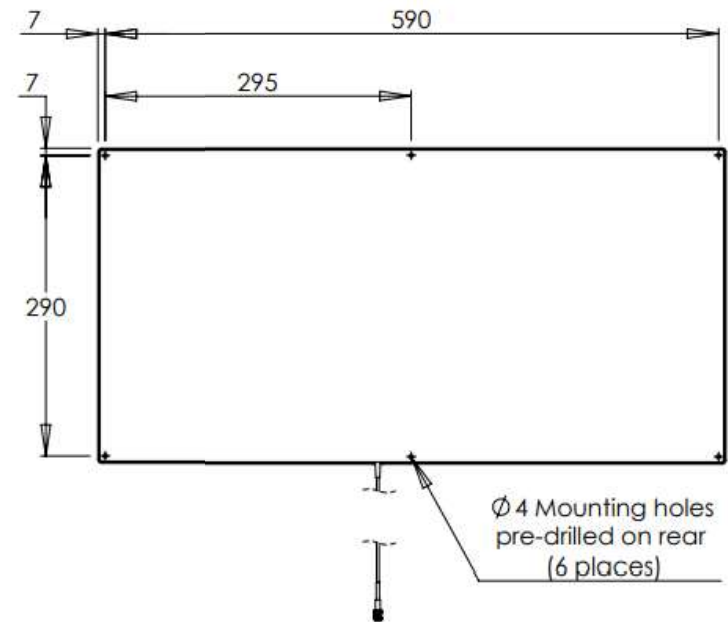
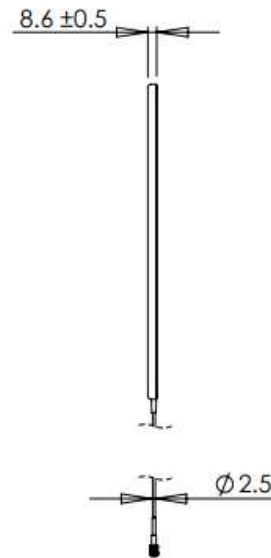
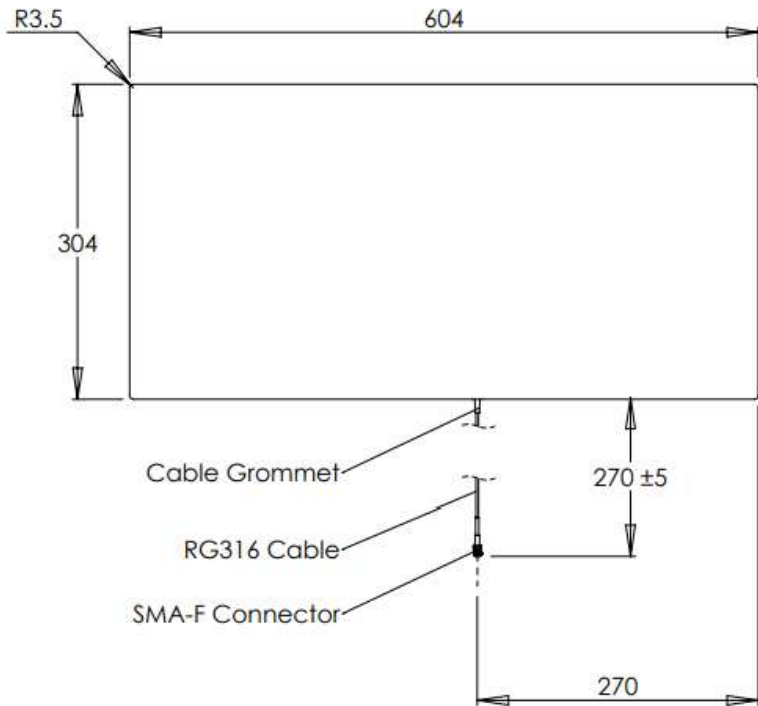
Ensure that only finger tightness is used for the SMA connector. Use of tools to tighten the connector will apply excessive force and will damage the connector.

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

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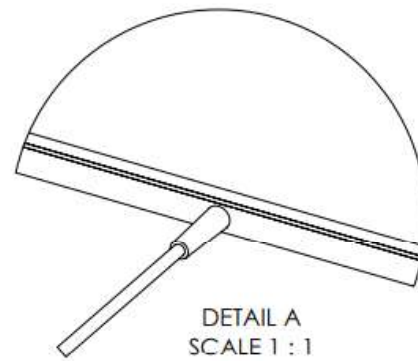
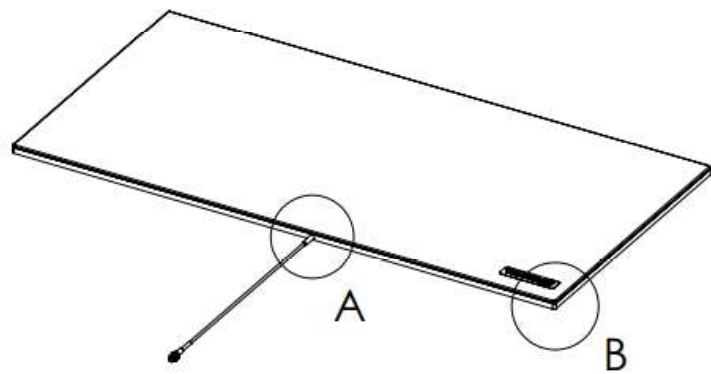
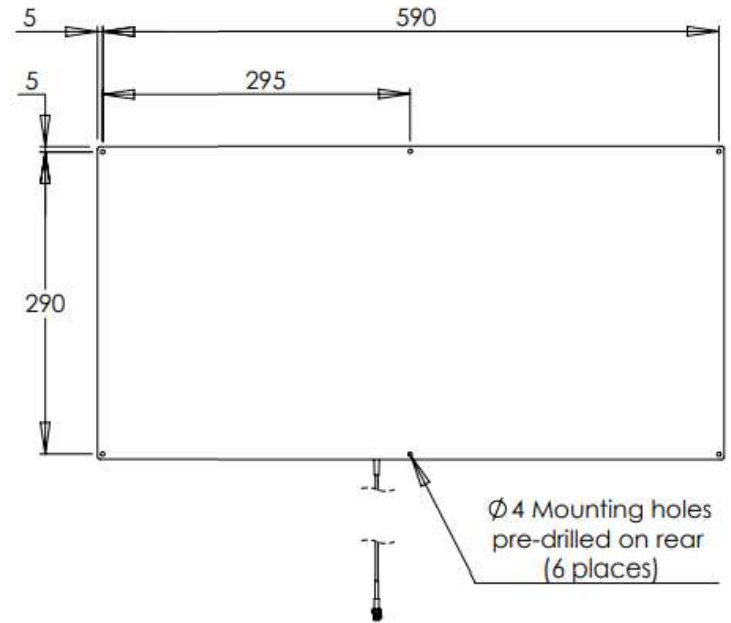
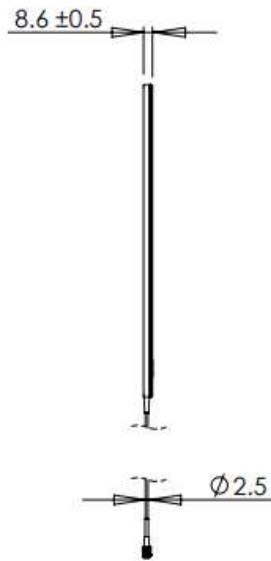
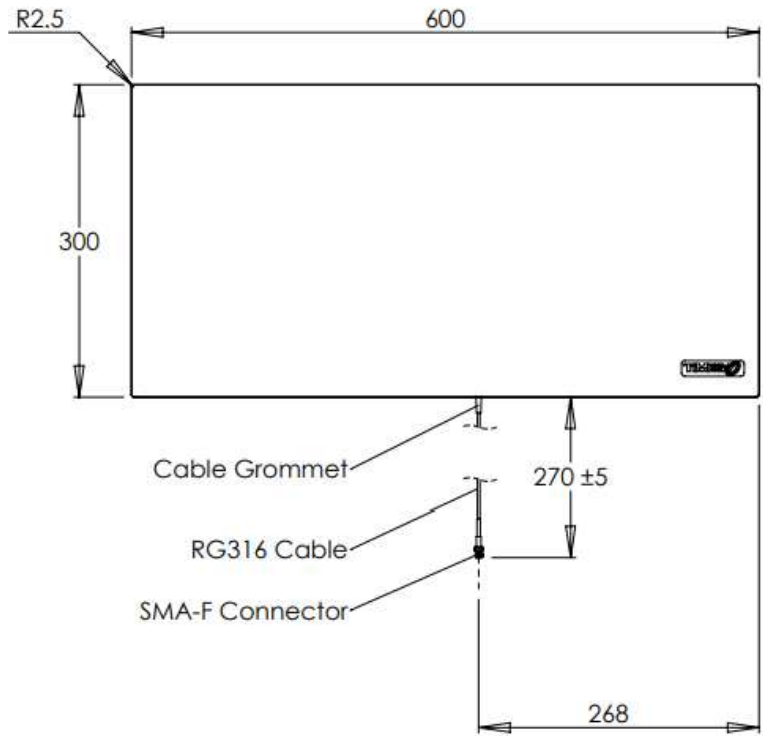
〒222-0033 横浜市港北区新横浜2-5-9 新横浜フジカビル
tel. 045-475-1555 fax. 045-475-3275

Mechanical Drawing for the A5060 Circularly Polarized High Gain Antenna (Formed Radome)



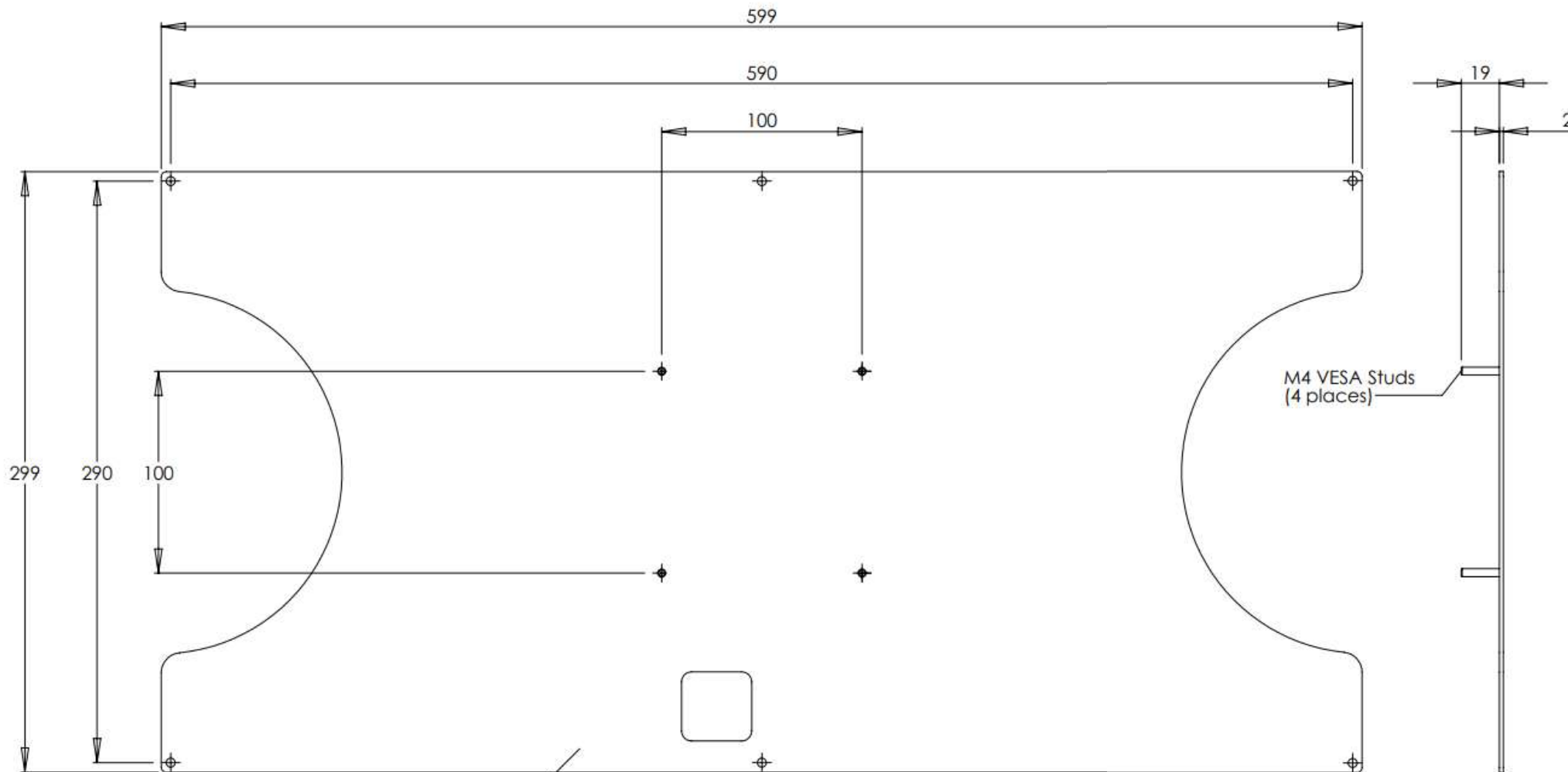
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|--|--|----------------------|--|-----------------|
| THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TIMES-7 LTD. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TIMES-7 IS PROHIBITED. | DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED TOLERANCES: NO DECIMAL PLACES ± 1 ONE PLACE DECIMAL ± 0.8 | | DESCRIPTION | |
| | | | A5060 Circularly Polarized High Gain Antenna (Formed Radome) | |
| DRAWN BY: Maria Price | DATE: 26-10-23 | SIZE A3 | PART NO. 75236 (ETSI), 75238 (FCC) | REV A |
| APPROVED BY: Peter Wilcock | DATE: 26-10-23 | DO NOT SCALE DRAWING | | SHEET 1 OF 1 |

Mechanical Drawing for the A5060 Circularly Polarized High Gain Antenna (Flat Radome)



| | | | | |
|--|---|----------------------|--|-----------------|
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| | | | A5060 Circularly Polarized High Gain Antenna (Flat Radome) | |
| DRAWN BY : Maria Price | DATE : 26-10-23 | SIZE A3 | PART NO. 71876 (ETSI), 71875 (FCC) | REV A |
| APPROVED BY : Peter Wilcock | DATE : 26-10-23 | DO NOT SCALE DRAWING | | SHEET 1 OF 1 |

Mechanical Drawing for the A5060 Circularly Polarized High Gain Antenna Mounting Plate



White Powdercoated Aluminium

| | | | | | |
|--|---|----------------------|------------------------------|-----------------|--|
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| | | | A5060 / A1163 Mounting Plate | | |
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| APPROVED BY: Peter Wilcock | DATE: 26-10-23 | DO NOT SCALE DRAWING | | SHEET 1 OF 1 | |