

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](#)

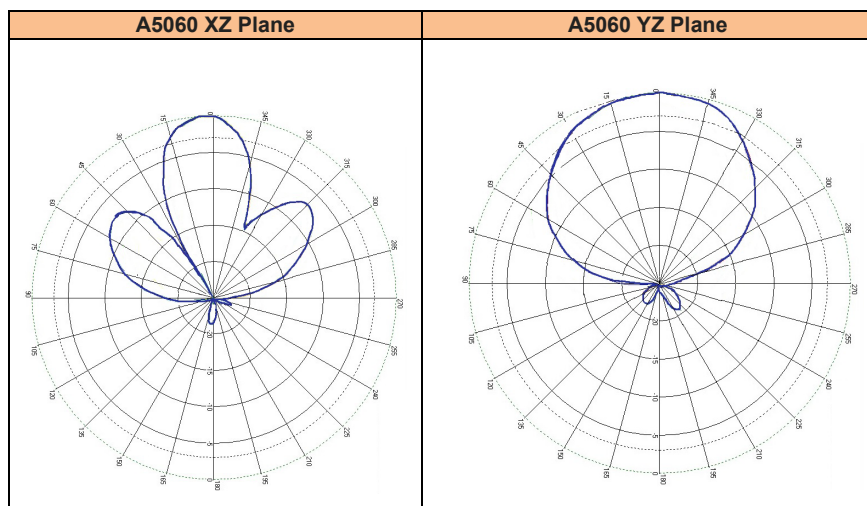
Physical / Environmental Specifications

Unboxed Dimensions:	604 x 304 x 8.6mm
*Length (x) x Width (y) x Depth (z)	23.78 x 11.97 x 0.34"
Boxed Unit Dimensions:	650 x 360 x 30mm
(L x W x D)	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"

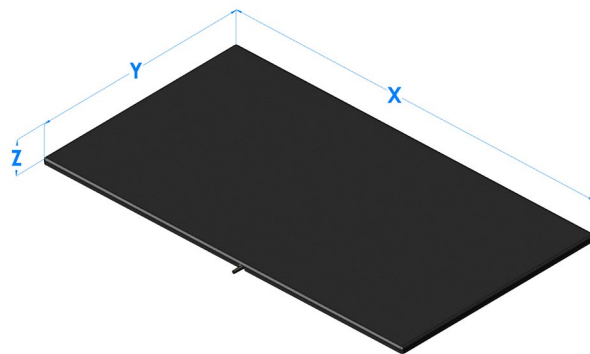
Electrical Specifications

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



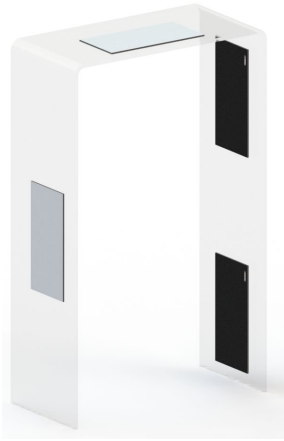
*Azimuth Planes



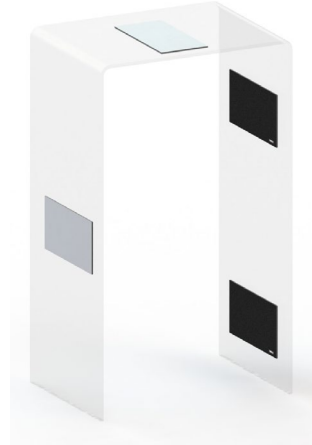
Applications

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.



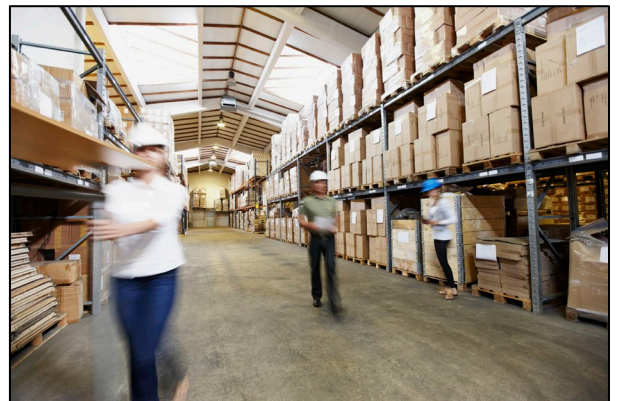
Tool Tracking

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.



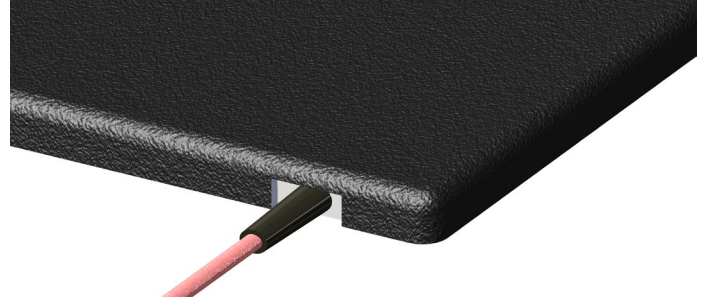
Warehouse Shelving Application

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.



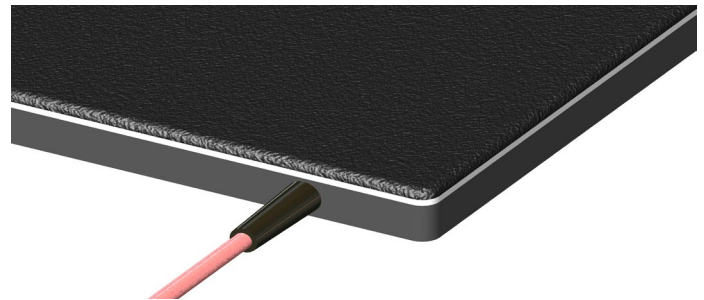
Formed Radome

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

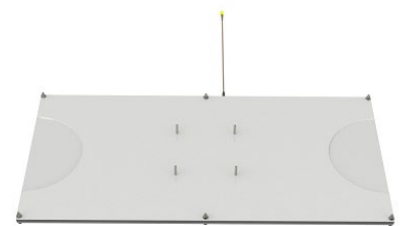
Flush Mount

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.

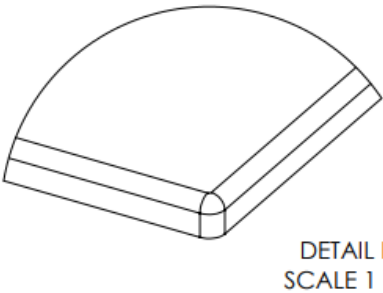
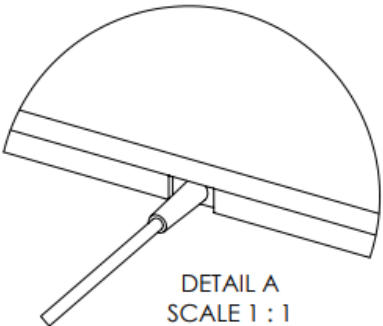
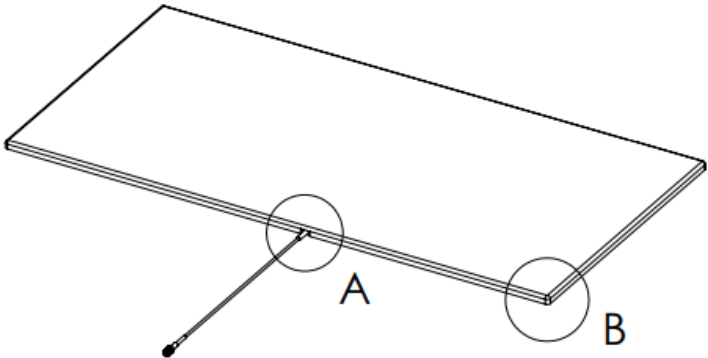
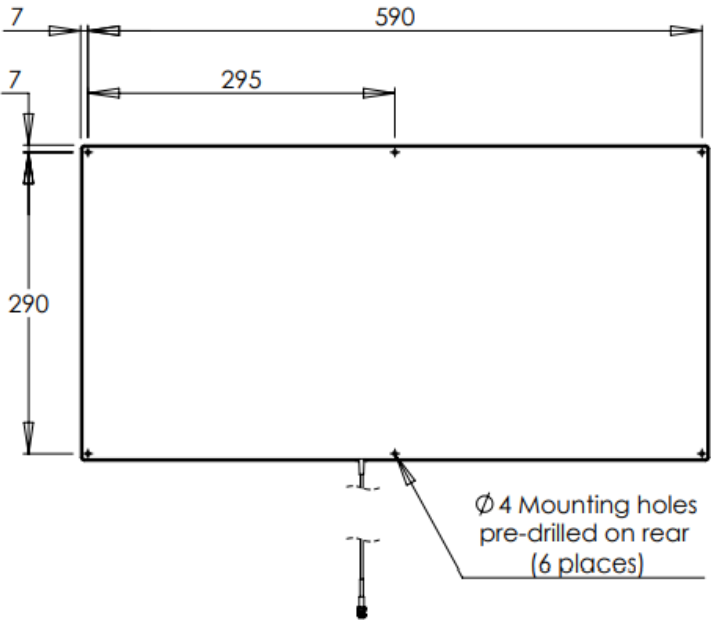
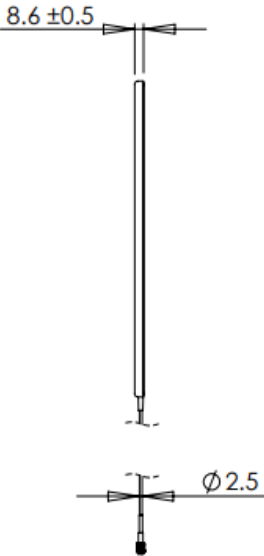
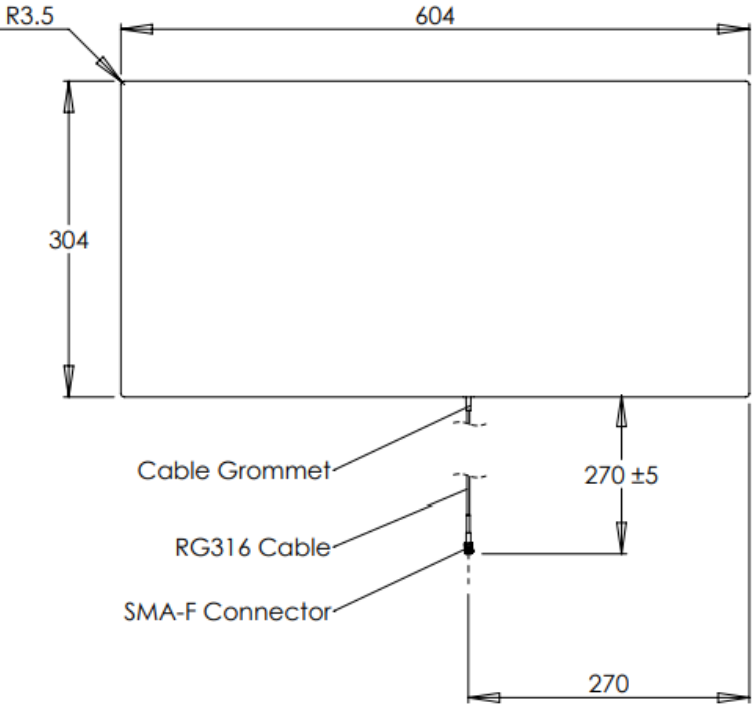
Avoid any excessive pulling force on the cable and be mindful of its bend radius to prevent damage and ensure proper functioning.

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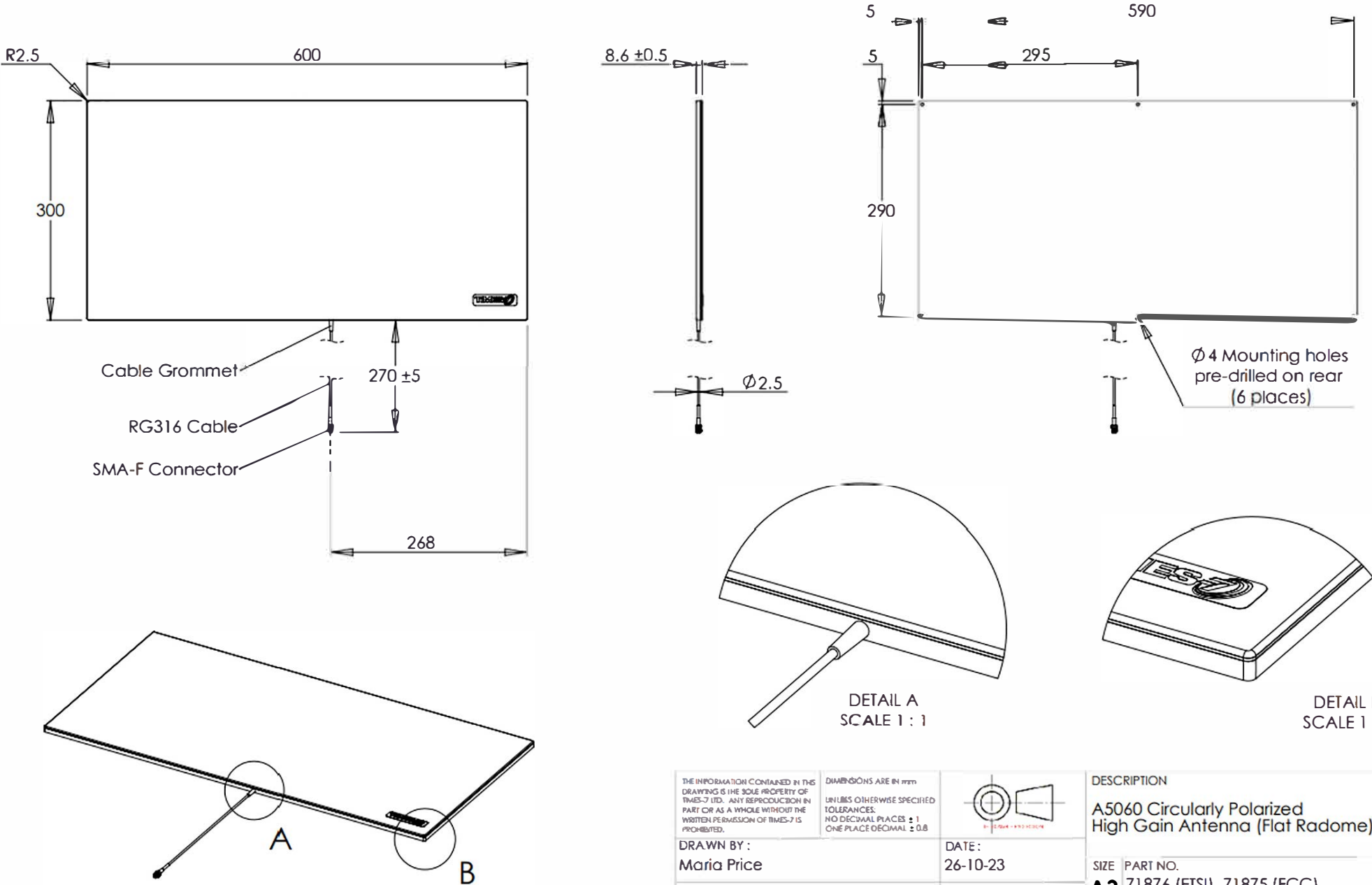
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Mechanical Drawing for the A5060 Circularly Polarized High Gain Antenna (Formed Radome)

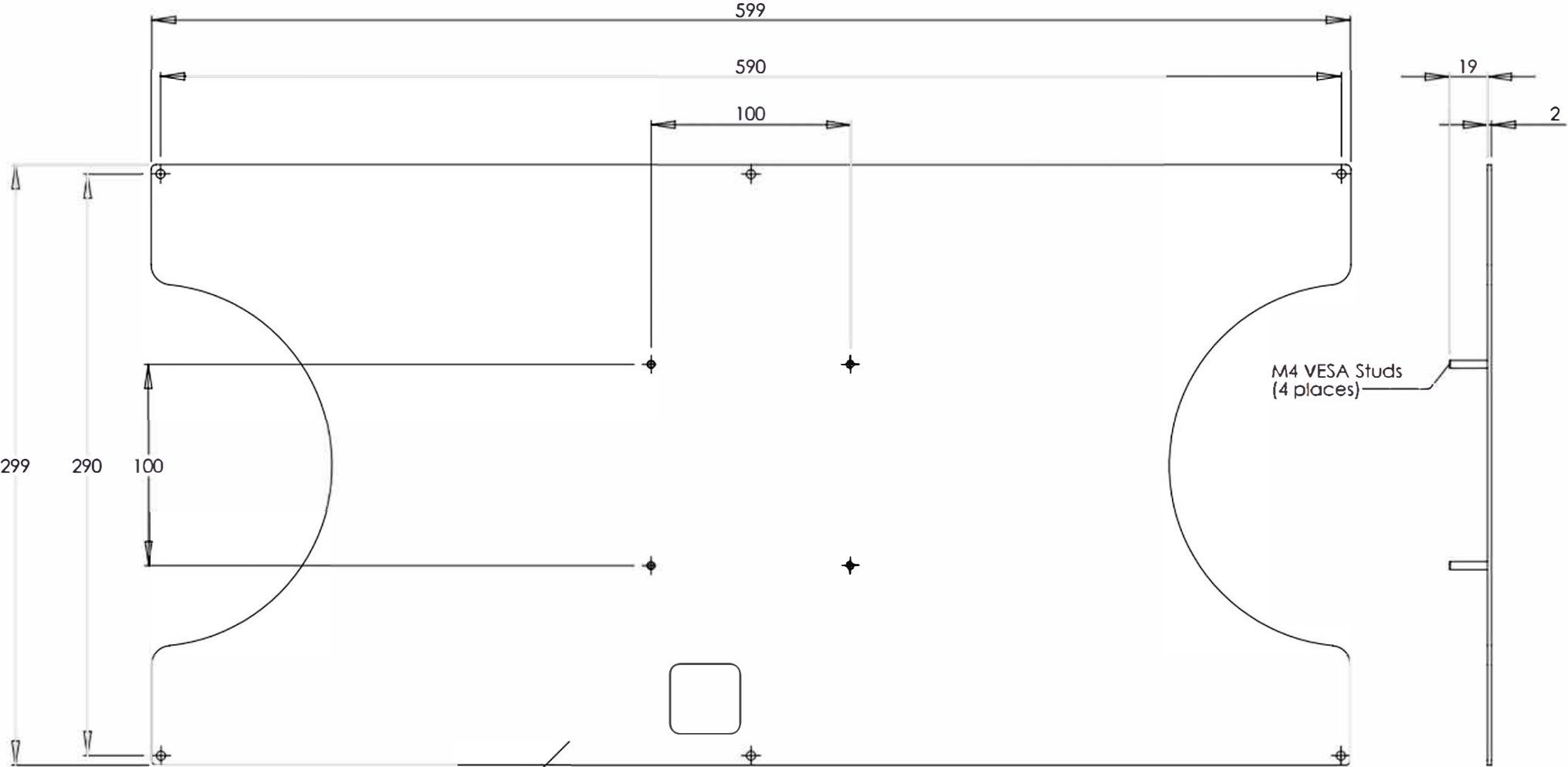


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DRAWN BY: Maria Price		DATE: 26-10-23		SIZE A3		PART NO. 75236 (ETSI), 75238 (FCC)		REV A	
APPROVED BY: Peter Wilcock		DATE: 26-10-23		DO NOT SCALE DRAWING					
						SHEET 1 OF 1			



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DRAWN BY : Maria Price		DATE : 26-10-23		SIZE A3		PART NO. 71876 (ETSI), 71875 (FCC)	
APPROVED BY : Peter Wilcock		DATE : 26-10-23		DO NOT SCALE DRAWING		REV A7	
Subject to change without notice.						SHEET 1 OF 1	

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



White Powdercoated Aluminium

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DIMENSIONS ARE IN mm
UNLESS OTHERWISE SPECIFIED
TOLERANCES:
NO DECIMAL PLACES ± 1
ONE PLACE DECIMAL ± 0.8



DESCRIPTION

A5060 / A1163 Mounting Plate

DRAWN BY:
Maria Price

DATE:
26-10-23

APPROVED BY:

DATE:
26-10-23

SIZE PART NO.
A3 72095

REV
A8

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SHEET 1 OF 1