

ABOUT TIMES-7

Times-7 is a high-tech company specialising in the design and manufacture of RAIN (UHF) RFID antennas, based in Lower Hutt, New Zealand. We export all over the world either direct or through our distributor, authorized reseller and integrated solutions provider network. Our brand is well-established in the global RFID market, and we are known for high quality and reliability, as well as our significant RF expertise.

Founded in 2006, Times-7 has developed the largest portfolio of fixed RAIN RFID reader antennas. As well as standard antennas for all applications, Times-7 also offers a custom antenna development service, when the requirements are not fully satisfied by our catalogue antennas.

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The A5060 multi-purpose antenna

High Gain,
up to 10m / 33 ft. read range
Multi-element array, ideal for
reflective environments

An exciting new addition to the SlimLine™ range of multi-purpose antennas, the A5060 is a circular polarized high gain antenna with an ultra-low profile, offering a read range of up to 10 m / 33 ft.

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.

Its standard physical size (600 mm x 300 mm / 2' x 1') allows the A5060 to be readily mounted behind ceiling tiles, in cabinets or to cover large bench tops. The A5060 can be either flush mounted using the six integrated mounting holes or VESA mounted using the Times-7 Mounting Plate.

Ordering Information

Ordering Information (please quote product code, band / cable type & part no.)

*Antenna Product Code	Band	Part No.
A5060	ETSI 865-868 MHz	71876
A5060	FCC 902-928 MHz	71875
Mounting Accessories Product Code		Part No.
Mounting Plate (A5060)	ETSI and FCC	72095
Cable Accessories Product code	Cable Type	Part No.
Cable 2 m, SMA to RPTNC	T7195 / 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

*ROHS & CE compliant.

View the Times-7 Cable Accessory datasheet [here](#)

Specifications

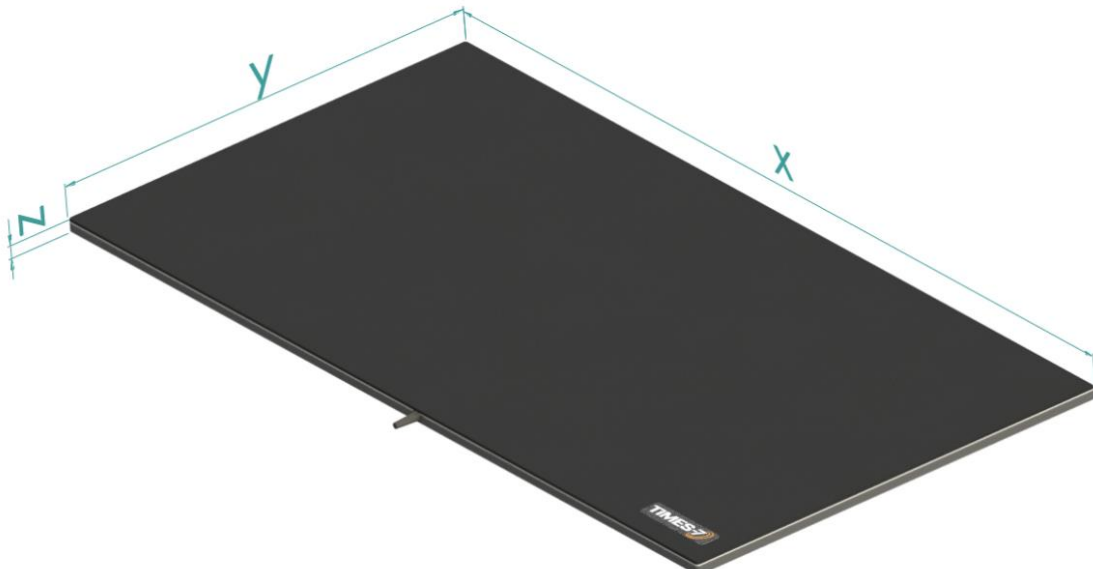
Physical / Environmental Specifications

Dimensions unboxed: Length (x) x Width (y) x Depth (z)	600 mm x 300 mm x 9 mm 1.96" x 0.98" x 0.34"
Boxed unit dimensions: (L x W x D)	650 mm x 360 mm x 30 mm 2.13" x 1.18" x 1.18"
Weight:	Net: 1.48 kg / 3.3 lbs. Gross: 1.79 kg / 3.9 lbs
Radome Material:	Fire 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 / position:	SMA female side fly lead
Cable type/ length:	RG316 / 270 mm / 10.6"

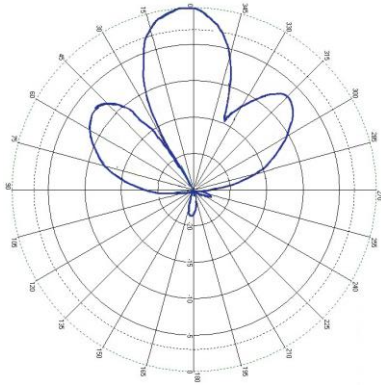
Electrical Specifications

Frequency Range:	865-868 MHz (ETSI) / 902-928 MHz (FCC)
Polarisation:	RHCP (Right Hand Circular Polarized)
Far-field Gain:	10.5 dBiC typical
Far-field 3dB beamwidth: *	25° in XZ-plane, 60° in YZ-plane
VSWR:	1.4 typical
Front to back ratio:	-25 dB
Axial Ratio:	2 dB typical
Nominal Impedance:	50 Ω
Anti-static protection:	Yes, DC grounded
Antenna Detection:	10 K Ω resistance
Maximum Input Power:	3 W

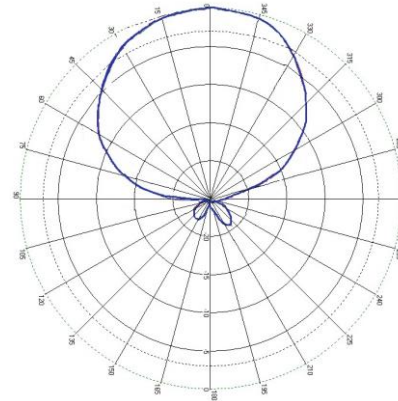
Azimuth Planes



Far-Field Radiation Pattern



XZ-plane



YZ-plane

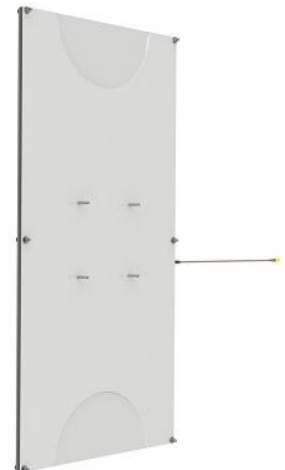
Mounting Information

Flush mount

The A5060 antenna has 6 pre-drilled mounting holes on the rear side, which can be drilled fully through without damaging the antenna. For the exact position please refer to the mechanical drawing on page 4. For further instructions please click [here](#).

Bracket mount

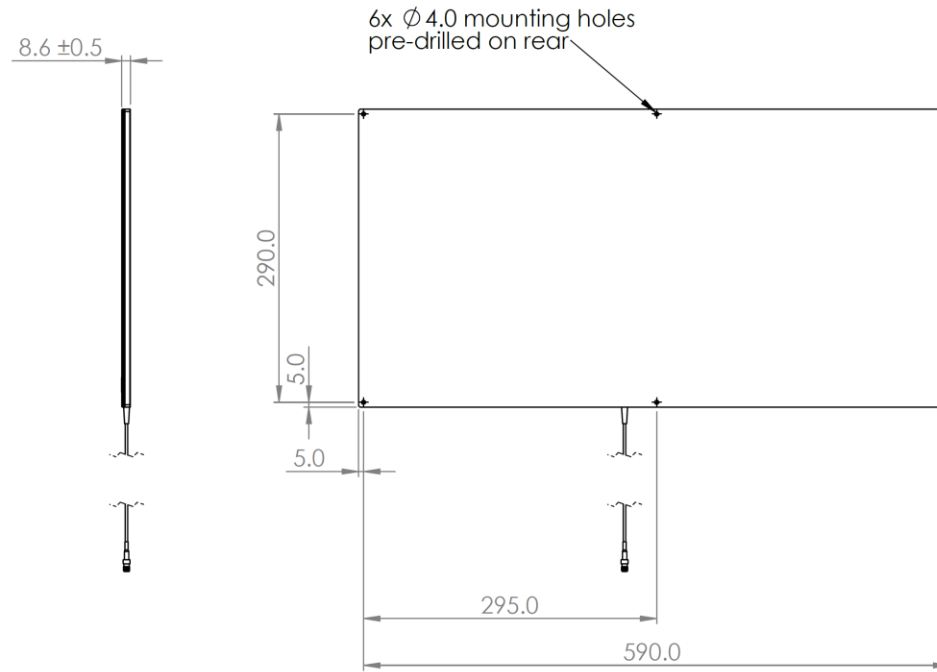
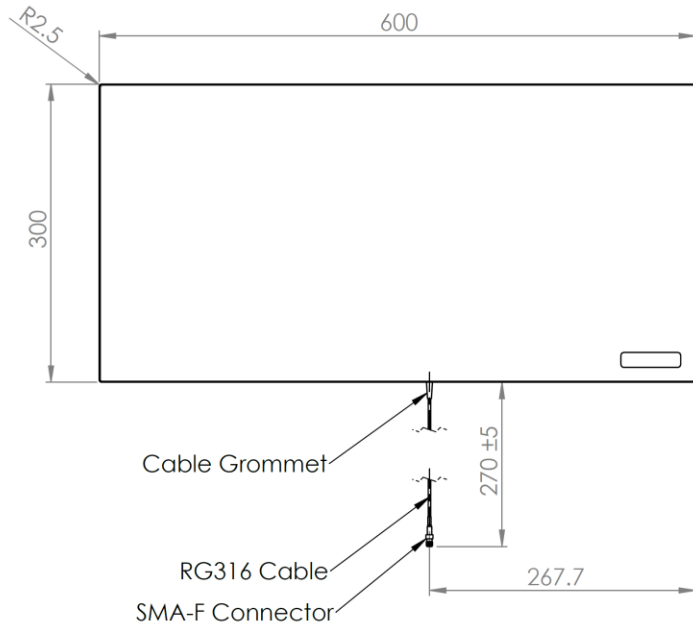
The Times-7 Mounting Plate for the A5060 is designed to support VESA brackets. Each mounting plate comes with a screw kit. For exact dimensions, please refer to the mechanical drawing on page 5. For instructions on how to attach the bracket to the antenna please click [here](#).



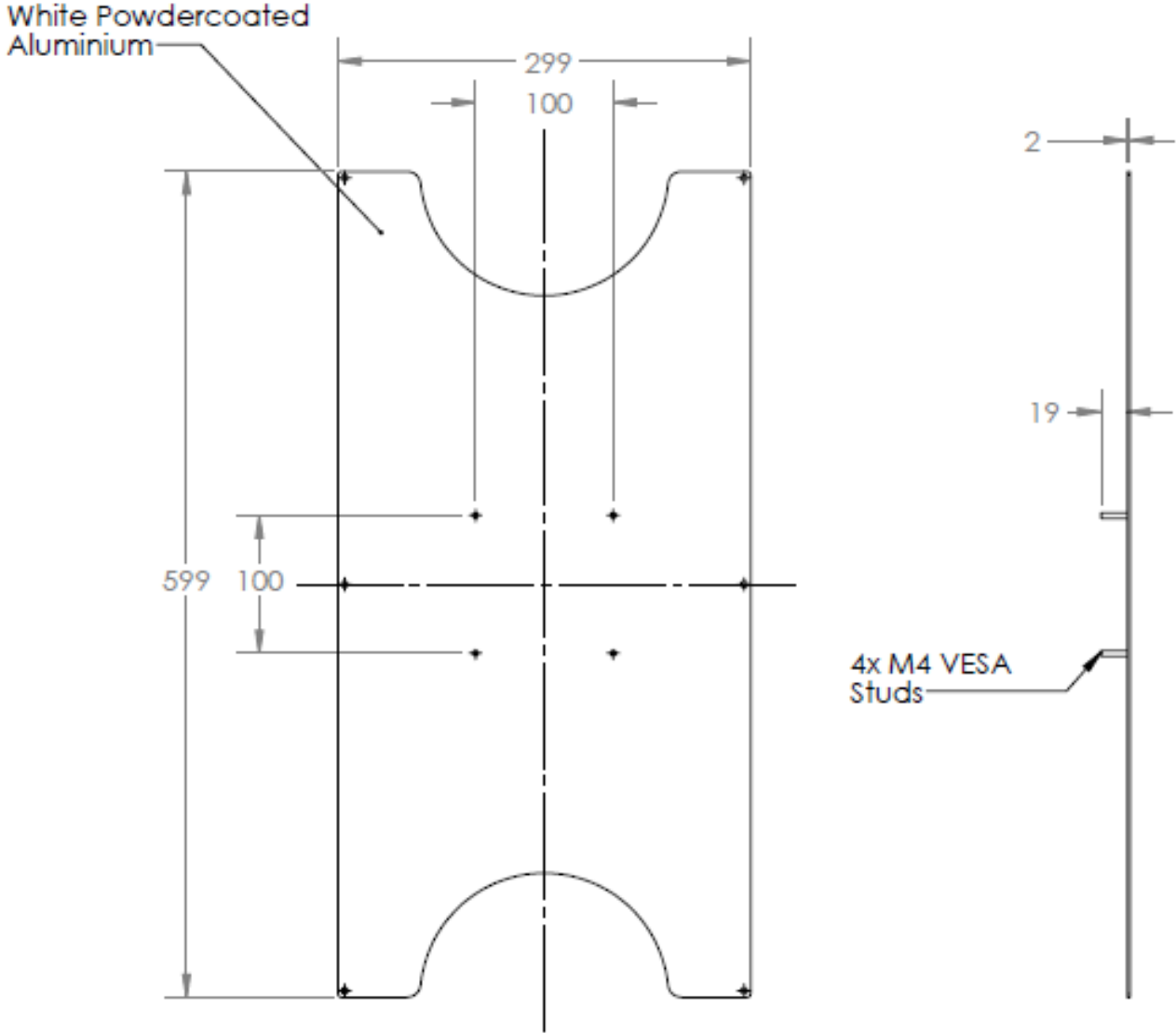
Installation Instructions

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

Mechanical Drawing for the A5060



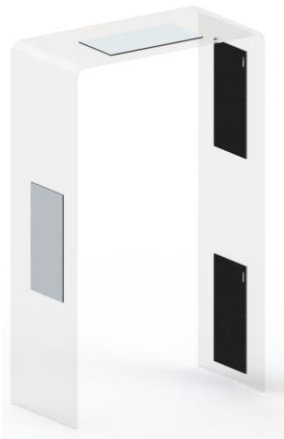
<small>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TIMES-7 LTD. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TIMES-7 IS PROHIBITED.</small>		<small>DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED TOLERANCES: NO DECIMAL PLACES ± 1 ONE PLACE DECIMAL ± 0.5</small>				DESCRIPTION		
DRAWN		SIGNATURE				DATE		A5060 Antenna
C Wilson				07/08/2019		SIZE	PART NO.	REV
APPROVED		SIGNATURE		DATE		A3	71876 (ETSI), 71875 (FCC)	D
R Lopez				07/08/2019		DO NOT SCALE DRAWING		SHEET 1 OF 1



Applications

Industrial Portal

The IP54 rating and the 10.5 dBiC gain makes this antenna highly suitable for industrial applications. A densely packed asset with numerous tags can be identified accurately with almost no effort. A standalone portal can be realized with four A5060 antennas (see pictures) All possible tag orientations will be captured due to the A5060's circular polarization and A5060 antennas' locations. The antennas on the sides are offset such that the antennas 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, 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 the stray reads due to an expanded read window. The read zone/area 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 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 the bench tops in packing/folding stations.



GLOBAL SUPPORT

In addition to our world-class products and in-depth expertise, Times-7 is known for their quality of customer service and technical support. We place emphasis on our responsiveness in supporting a large global customer base and ensuring the success of our customer's implementations.

Vehicle Tolling/Vehicle Access Control

The A5060' 10.5 dBiC 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 zones for each lane.



Tool Tracking

The A5060 antenna is a good choice to track tools in a tool cabinet. Highly reflective metallic environments are a challenge for traditional RFID antennas. A5060 is a multi-element antenna by design hence it is less affected by metallic assets and just need to be in the line of sight of the antenna to be read efficiently. The tools will have to be typically tagged using 'on-metal' tags.



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 in the shelves can be monitored in real-time with great accuracy.



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Datasheet v4.0