

**ABOUT TIMES-7**

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.

Times-7 Research Ltd  
10 Te Puni Street  
Lower Hutt 5012  
New Zealand  
P: +64 4 974 6566

NEW Zealand  
P: +64 4 974 6566

USA/CANADA  
P: +1 408 769 5025

E: [sales@times-7.com](mailto:sales@times-7.com)

[www.times-7.com](http://www.times-7.com)



The A5530 Ground Mat

Ultra-low profile ground mat antenna

Just 12 mm / 0.5 in. thick

IP66, robust design & superb aesthetics

Ideal for event / race timing applications

Part of Times-7's exclusively unique range of ground antennas the A5530 is a high-performance ground mat antenna optimized for applications involving moving products, assets, and people.

The A5530 is ideal for RFID deployments where an ultra-low profile, robust and weather resistant antenna is required. At just 12 mm / 0.5" thick, the durable A5530 has superb aesthetics, IP66 rating, and load bearing capabilities.

With increased versatility, flexibility, and performance over traditional side antennas, the unique A5530 ground mat antenna is in a class of its own. The mat antenna includes an SMB-SMA adapter for better protection and easy cable replacement. The A5530 is available in both, circular and linear polarization.

**Ordering Information**

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

*Antenna Product Code	Band	Part No.
A5530C	ETSI 865-868 MHz	71752
	FCC 902-928 MHz	71644
A5530V	ETSI 865-868 MHz	70887
	FCC 902-928 MHz	70890
A5530H	ETSI 865-868 MHz	72017
	FCC 902-928 MHz	72018

Cable Accessories Product Code		Part No.
Label Set for cable tray and mat ID		70745
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

\*Built in New Zealand. ROHS & CE compliant.

## Specifications

### Physical / Environmental Specifications

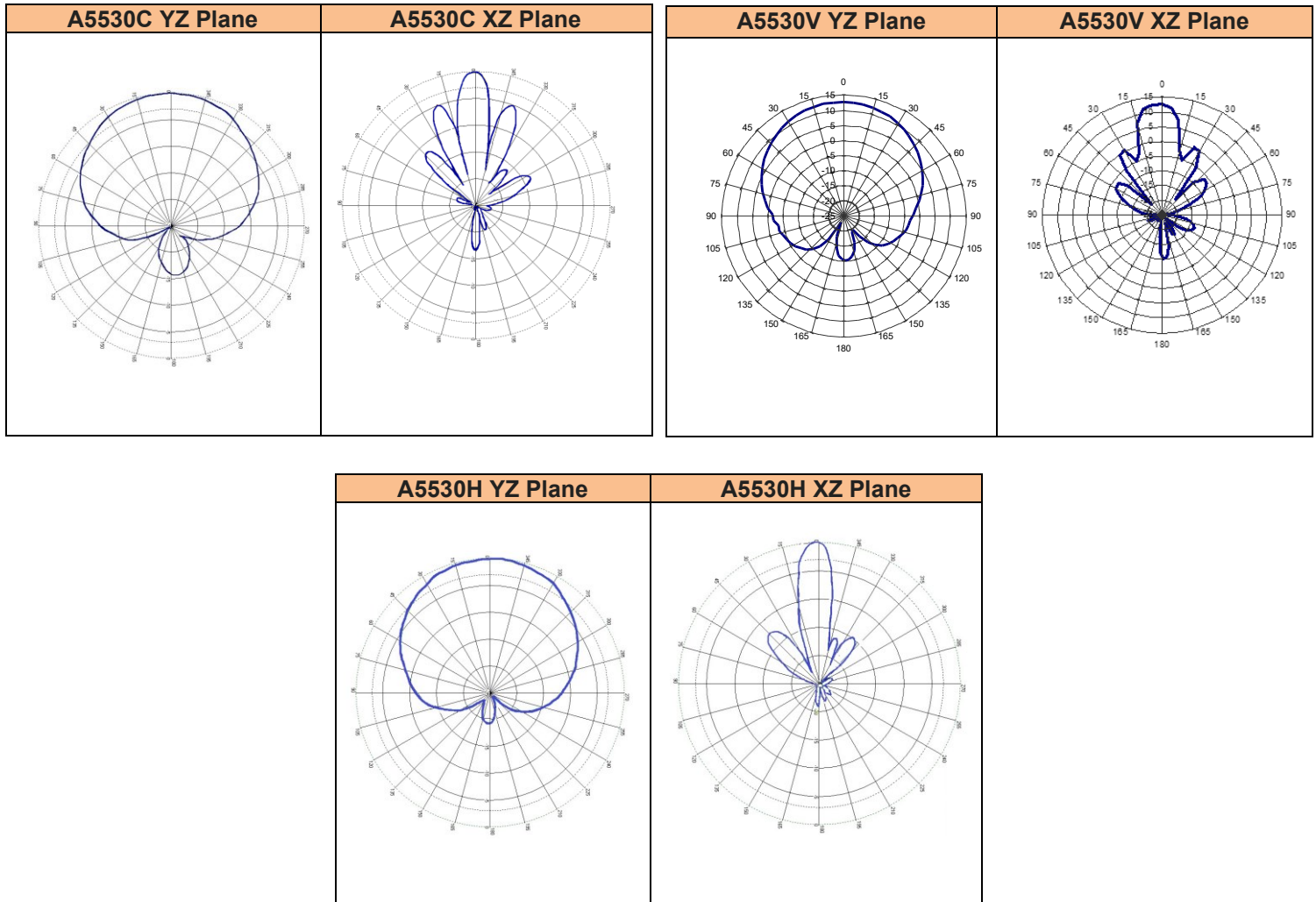
Specifications	A5530C	A5530L	
		A5530V	A5530H
Dimensions unboxed: Length (x) x Width (y) x Depth (z)	1220 mm x 600 mm x 12 mm 48.03" x 23.62" x 0.47"	1220 mm x 600 mm x 12 mm 48.03" x 23.62" x 0.47"	1220 mm x 600 mm x 12 mm 48.03" x 23.62" x 0.47"
Boxed unit dimensions	1337 mm x 690 mm x 40 mm / 52.63" x 27.16" x 1.57"	1337 mm x 690 mm x 40 mm / 52.63" x 27.16" x 1.57"	1337 mm x 690 mm x 40 mm / 52.63" x 27.16" x 1.57"
Weight:	Net: 8.7 kg / 19.2 lbs. Gross: 10.1 kg / 22.2 lbs.	Net: 8.1 kg / 18.5 lbs. Gross: 9.5 kg / 21 lbs.	Net: 8.1 kg / 18.5 lbs. Gross: 9.5 kg / 21 lbs.
Radome Material:	Molded polyurethane housing	Molded polyurethane housing	Molded polyurethane housing
Environmental Rating:	IP66	IP66	IP66
Operating / Storage Temperature:	0° to +50°C / -30° to +60°C 32° to +122°F / -22° to +140°F	0° to +50°C / -30° to +60°C 32° to +122°F / -22° to +140°F	0° to +50°C / -30° to +60°C 32° to +122°F / -22° to +140°F
Connector type / position:	SMA female fly lead	SMA female fly lead (300 mm / 1 ft.)	SMA female fly lead (300 mm / 1 ft.)
Cable type / length	RG 316 / (300 mm / 1 ft.)	195 / (300 mm / 1 ft.)	RG 316 / (300 mm / 1 ft.)

## Electrical Specifications

Specifications	A5530C	A5530L	
		A5530V	A5530H
Frequency Range:	864-868 MHz / 902-928 MHz	864-868 MHz / 902-928 MHz	864-868 MHz / 902-928 MHz
Polarization:	RHCP (Right Hand Circular Polarised)	Vertical Linear	Horizontal Linear
Far-field Gain:	9.5 dBiC typical	10 dBi typical	10 dBi typical
Far-field 3 dB beamwidth: *	85° in YZ, 13° in XZ	70° in YZ, 25° in XZ	85° in XZ, 13° in YZ
VSWR:	2.1 typical	1.8 typical	2.5 typical
Front to back ratio:	-18 dB	-20 dB	-18 dB
Nominal Impedance:	50 Ω	50 Ω	50 Ω
Anti-static protection:	Yes, DC grounded	Yes, DC grounded	Yes, DC grounded
Maximum Input Power:	3 W	3 W	3 W
Antenna detection	10 K Ω resistance	10 K Ω resistance	10 K Ω resistance

\*Far field 3dB beam width in xz-plane is always along the longer side (L) of the antenna.

## Radiation Pattern



## Payload information

This Race Timing Mat (The A5530 mat antenna) is designed to support moderate loads, such as runners, cyclists, hand trolleys and carts with rubber wheels and occasional vehicular traffic with pneumatic tires, etc. Care must be taken to ensure the mat is installed on a smooth, hard, flat surface. Ensure that the Mat surface is not damaged from sharp objects such as steel-edged wheels, stone chips or glass fragments, etc. Any point load must not exceed 100 psi (7 kg/ cm<sup>2</sup>) and the maximum distributed load on the mat should not exceed 1100lb (500kg).

## 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.

## Applications

### Industrial Asset Tracking

The A55030 antenna is perfect for tracking components or materials through the production process and ensuring they are in the right place at the right time



### Event and Race Timing

With the A5530 track event and race timing scores in real time. We recommend the linearly polarized A5530 for Race Timing applications.



### Conference Tracking

Track attendees, study traffic patterns and increase ROI with the A5530 antenna. Using RFID attendee tracking technology gives you a unique opportunity to gain insights into attendee behavior patterns.



### OUR GLOBAL NETWORK

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.

**RFID4u**  
Store

Authorized Reseller: RFID4UStore  
[www.rfid4ustore.com](http://www.rfid4ustore.com)  
1-408-739-3500

Times-7 Research Ltd  
10 Te Puni Street  
Lower Hutt 5012  
New Zealand

NEW ZEALAND  
P: +64 4 974 6566

USA/CANADA  
P: +1 408 769 5025

E: [sales@times-7.com](mailto:sales@times-7.com)

[www.times-7.com](http://www.times-7.com)

The technical data contained in this publication is not a guarantee for which Times-7 Research Ltd assumes legal accountability. It is indicative of typical performance, and if required should be relied on for specific applications only after due verification.

All technical data, specifications and other information contained herein are deemed to be the proprietary intellectual property of Times-7 Research Ltd. No reproduction, copy or use thereof may be made without the express written consent of Times-7 Research Ltd.

Times-7, and the stylized T-7 Antennas logo are trademarks or registered trademarks of Times-7 Research Ltd. All other trademarks are the property of their respective owners.  
© 2022 Times-7 Research Ltd. All rights reserved. Specifications are subject to change without notice.

Datasheet v3.0