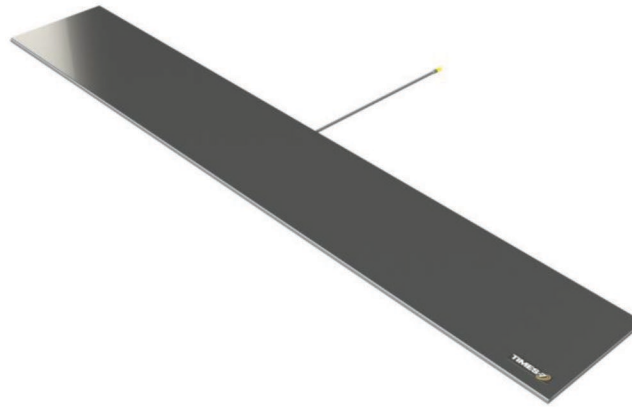


ABOUT TIMES-7

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.



The A5531 Ground Antenna

Ultra-low profile ground antenna

Just 10 mm / 0.4 in. thick

Typical applications:
Conference attendee & people tracking, retail marketing, race & event timing

Part of the Times-7 unique and exclusive range of ground antennas, the A5531 is a high-performance ground antenna optimised for applications involving moving products, assets and people. From conference attendee & people tracking, retail presence aware / loyalty marketing, & race timing, the A5531 is ideal for situations where traditional side antennas are unsuitable or non-optimised for the application.

At just 10 mm / 0.4 in. thick, the durable, high performance A5531 is uniquely capable of lying flat on the ground and spans 1.2m / 4ft and can withstand payloads of over 200 kg (440 lbs.).

Payload Information

This ground antenna is designed to support moderate loads, such as hand trolleys and carts with rubber wheels, runners, bicyclists, and occasional vehicular traffic with pneumatic tires, etc. Care must be taken to ensure the antenna is installed on a smooth, hard, flat surface. Ensure that the antenna 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/cm²) and the maximum distributed load on the antenna should not exceed 1100lb (500kg).

Specifications

Physical / Environmental Specifications

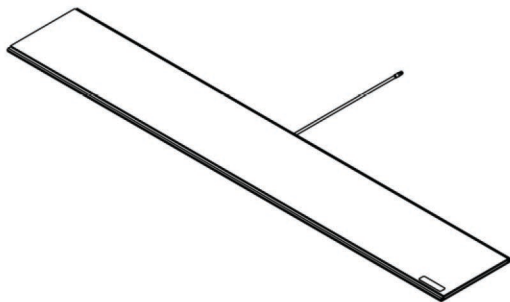
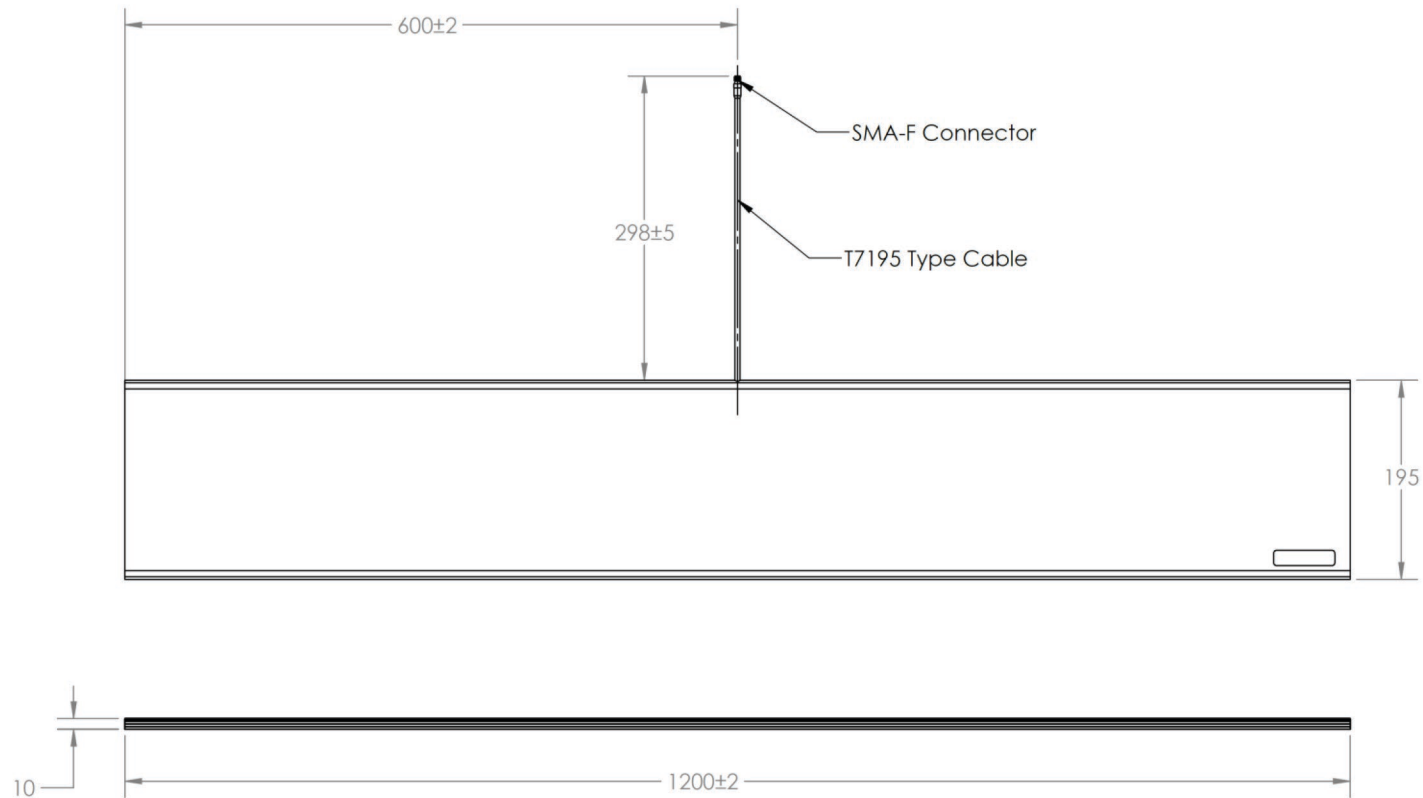
| Specifications | A5531C | A5531L | |
|--|---|--------|--------|
| | | A5531V | A5531H |
| Dimensions Length (x) x Width (y) x Depth (z) | 1200 mm x 195 mm x 10 mm 47.24" x 7.67" x 0.39" | | |
| Boxed unit dimensions: (L x W x D) | 1380 mm x 330 mm x 40 mm 51.18" x 13" x 1.57" | | |
| Weight: | Net: 2.7 kg / 5.9 lbs. Gross: 3.8 Kg / 8.37 lbs. | | |
| Radome Material: | Fire retardant ABS | | |
| Environmental Rating: | IP53 | | |
| Operating / Storage Temperature: | 0° to +50°C / -30° to +60°C 32° to +122°F / -22° to +140°F | | |
| Connector type / position: | SMA female side fly lead | | |
| Cable type / length | 195 / 298mm / 11.7" | | |

Electrical Specifications

| Specifications | A5531C | A5531L | |
|-----------------------------|--------------------------------------|----------------------|----------------------|
| | | A5531V | A5531H |
| Frequency Range: | 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: * | 13° in XZ, 85° in YZ | 25° in XZ, 70° in YZ | 13° in YZ, 85° in XZ |
| VSWR: | 2.0 typical | 2.0 typical | 2.5 typical |
| Front to back ratio: | -18 dB | -20 dB | -18 dB |
| Nominal Impedance: | 50 Ω | | |
| Anti-static protection: | Yes, DC grounded | | |
| Antenna Detection | 10 k Ω resistance | | |
| Maximum Input Power: | 3 W | | |

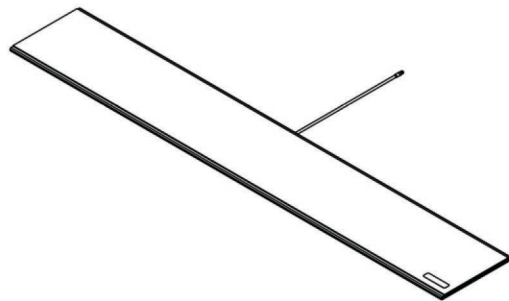
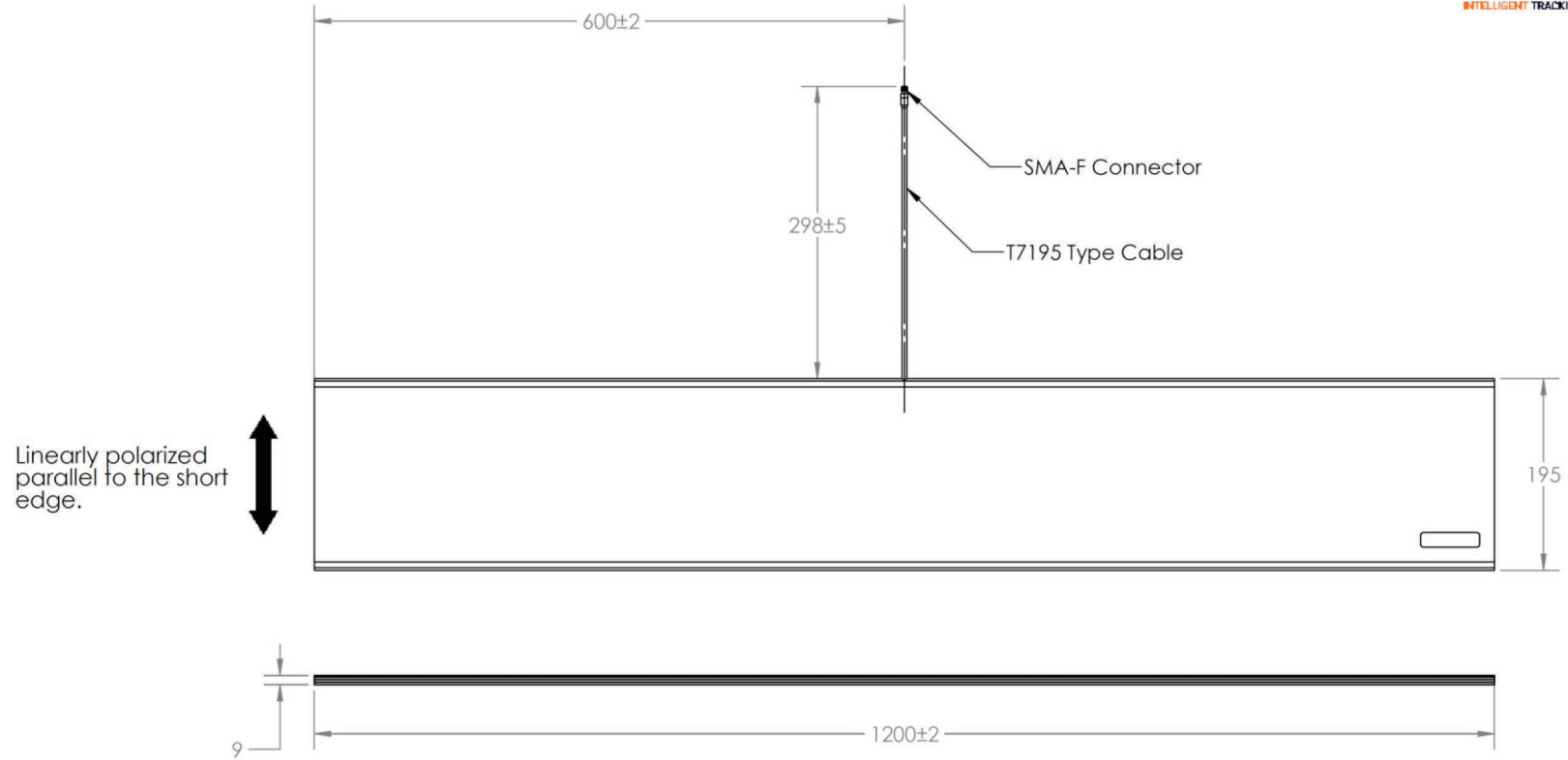
*View the A5531 Azimuth Planes [here](#)

Mechanical Drawing for the A5531C



| | | | | | | | |
|--|---------------|---|--------------|------------------------------------|----------|-------------------------------|--|
| 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 ± 0.5 | | | | DESCRIPTION A5531C Antenna | |
| DRAWN C Wilson | SIGNATURE | DATE 05/08/2019 | SIZE A3 | PART NO. 71846(ETSI)/71741(FCC) | REV B | DO NOT SCALE DRAWING | |
| APPROVED R Lopez | SIGNATURE | DATE 07/08/2019 | SHEET 1 OF 1 | | | | |

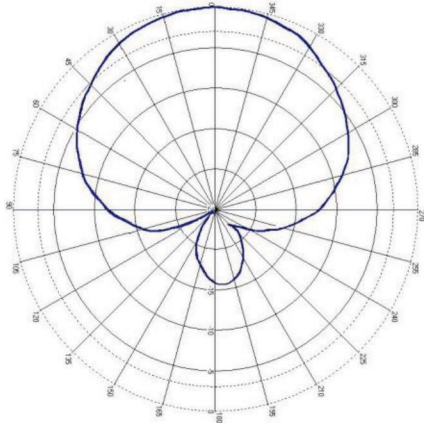
Mechanical Drawing for the A5531V



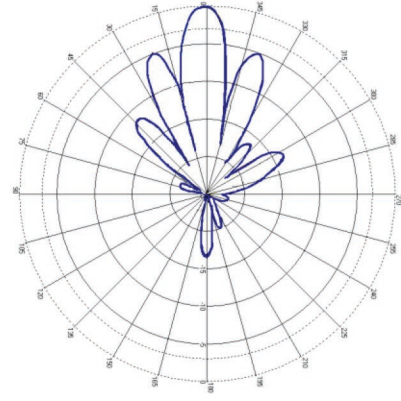
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|---|---------------|--|-------------------|------------------------------------|-----------------|-------------------------------|--|
| <small>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TIMES-7 LTD. ANY REPRODUCTION IN PART 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 A5531V Antenna | |
| DRAWN C Wilson | SIGNATURE | DATE 05/08/2019 | SIZE A3 | PART NO. 71103(ETSI)/71100(FCC) | REV B | DO NOT SCALE DRAWING | |
| APPROVED R Lopez | SIGNATURE | DATE 07/08/2019 | SHEET 1 OF 1 | | | | |

Electric Field Radiation Pattern

A5531C

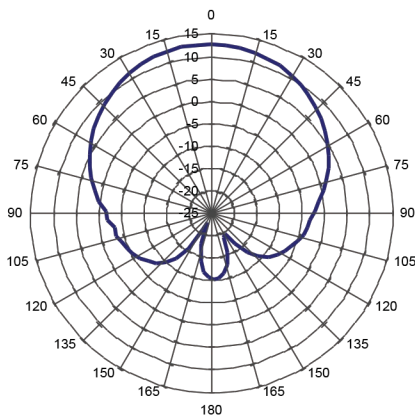


YZ-plane

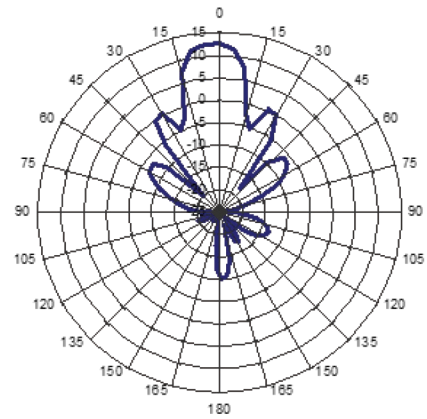


XZ-plane

A5531V

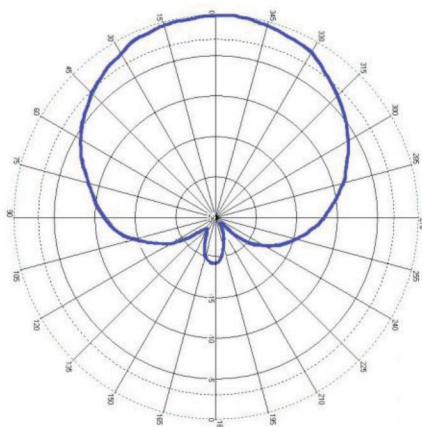


YZ-plane

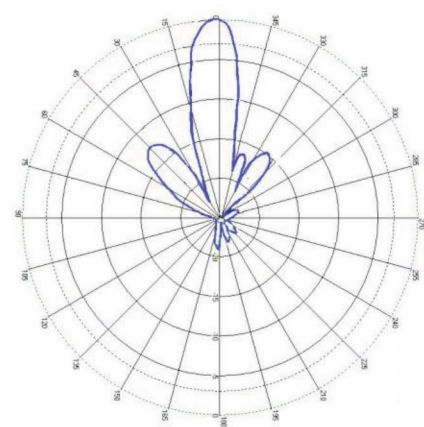


XZ-plane

A5531H

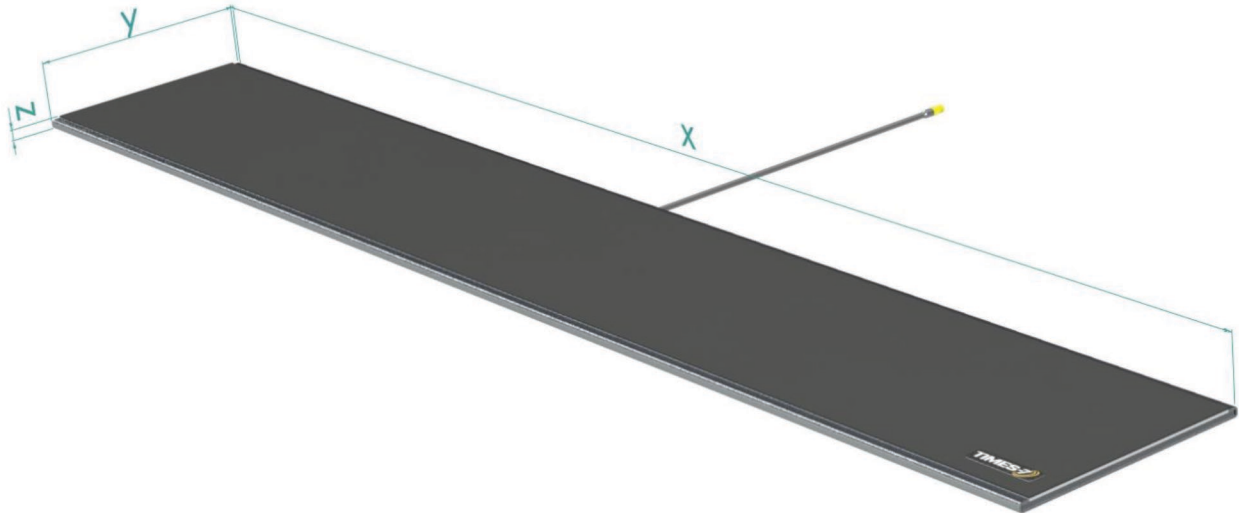


YZ-plane



XZ-plane

Azimuth Planes



Ordering Information

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

| *Antennas Product Code | Band | Part No. |
|------------------------|------------------|------------|
| A5531C | ETSI 865-868 MHz | 71846 |
| | FCC 902-928 MHz | 71741 |
| A5531V | ETSI 865-868 MHz | 71103 |
| | FCC 902-928 MHz | 71100 |
| A5531H | ETSI 865-868 MHz | On request |
| | FCC 902-928 MHz | On request |

*Built in New Zealand. RoHS & CE compliant.

| 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 |

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.
- For any connector antenna: Avoid any load or bending force from the cable on the connector.
- We recommend covering the antenna's radome with RF transparent material for protection.

Applications



Conference Attendee /
People Tracking



Industrial Asset Tracking

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.

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Datasheet v2.0

