

Acuta A10415 GPS Antenna

Antenova's **Acuta A10415** is an innovative high performance GPS antenna designed to replace ceramic patch antennas without compromising performance, reduce development costs and improve time-to-market. The very slim **A10415** allows a substantial reduction in the minimum thickness of the host device compared to a solution using a 12x12mm² ceramic patch antenna.

A10415 is intended to be mounted at the edge of the host PCB facing the sky, in a similar way to a conventional patch antenna, which generates an almost hemispherical radiation pattern towards the sky - achieving optimal GPS performance.

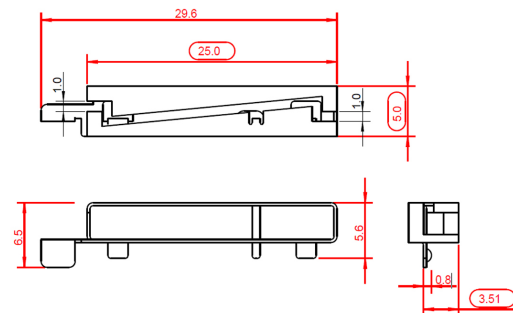
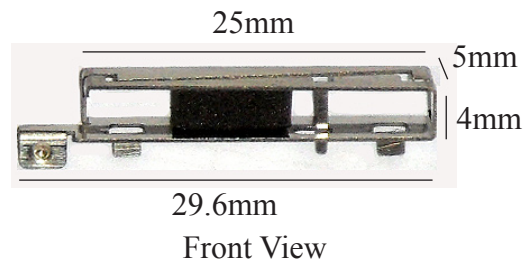
A10415 is easily tuned using a simple matching circuit on the host PCB, allowing the same antenna to be used in different devices without physical modifications. The antenna is soldered directly onto the host PCB, without the need of expensive coaxial cables, RF connectors or mounting frames, significantly reducing the total BOM of the GPS solution.

Applications:

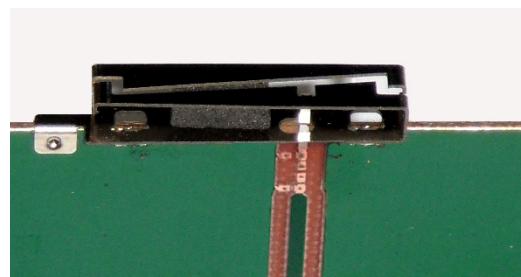
- Portable Navigation Devices (PNDs)
- GPS Trackers
- Mobile Phones / Smart Phones
- Notebooks / Tablets / e-Readers
- M2M

Features:

- Small size and light weight (0.5g)
- High performance
- Upward hemispherical RHCP pattern
- Simple matching circuit tuning
- Works in many different positions in the device
- No extra mechanical support required



Mechanical Drawings



Typical Mount on Edge of Host PCB

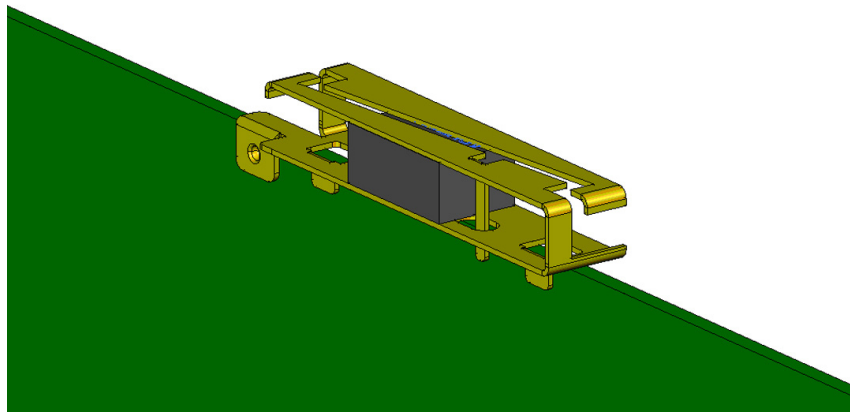
A10415 GPS Antenna

electrical

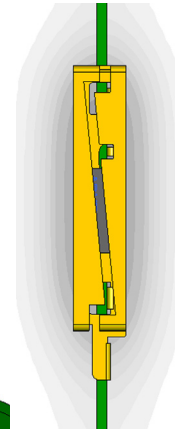
Frequency:	1575.42MHz
Bandwidth:	30MHz (Typical)
Impedance:	50Ω
Matching:	1 or 2 components
Efficiency - Total	>60%
Efficiency - RHCP:	>40%

mechanical

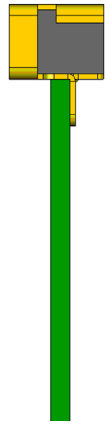
Dimensions (LxWxH):	25.0 mm x 5.0mm x 4.0mm
Total Dimensions:	29.6mm x 5.0mm x 5.6mm
Weight:	0.5g
Construction:	Metal
Mounting:	Edge of device PCB
Soldering:	Hand solder, 3 pads
Groundplane:	Larger than 30mm x 30mm (preferred)



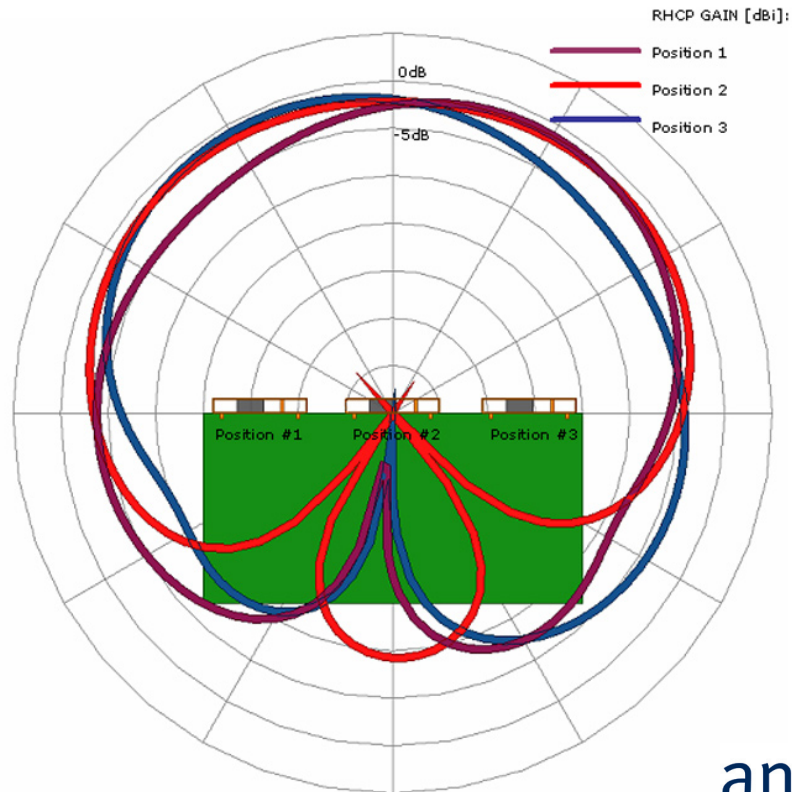
Typical Edge Mounting Position on Host PCB



Top View



Side View



Typical Radiation Patterns

antenna®



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The information provided in this document was correct at the time of going to print