

Antenna

Product Code: L-AN300

Description: Patch Antenna for 433 MHz

The Wavetrend Patch antenna has a zero dBi gain and operates at 433 MHz. It has been designed for optimal RF receiving performance with the Wavetrend reader range.



Features

While the **L-AN100** whip antenna has an Omni-Directional reception characteristic the **L-AN300** patch antenna is typically used for its unique directional properties. Its reception field is of a hemispheric nature with a larger than 15 dB front to back ratio. The **L-AN300** can be mounted on a flat surface (mounting plate is included) at a remote location from the reader (preferably less than 10 meters) with minimal cable losses providing that high quality cable is used.

The antenna can also be mounted inside a dry wall construction, behind wood panelling, glass or other non-RF shielding materials. The antenna can be painted with non-metallic paint.

The antenna is housed in a plastic mould that is UV resistant and can be used outdoors.

Applications

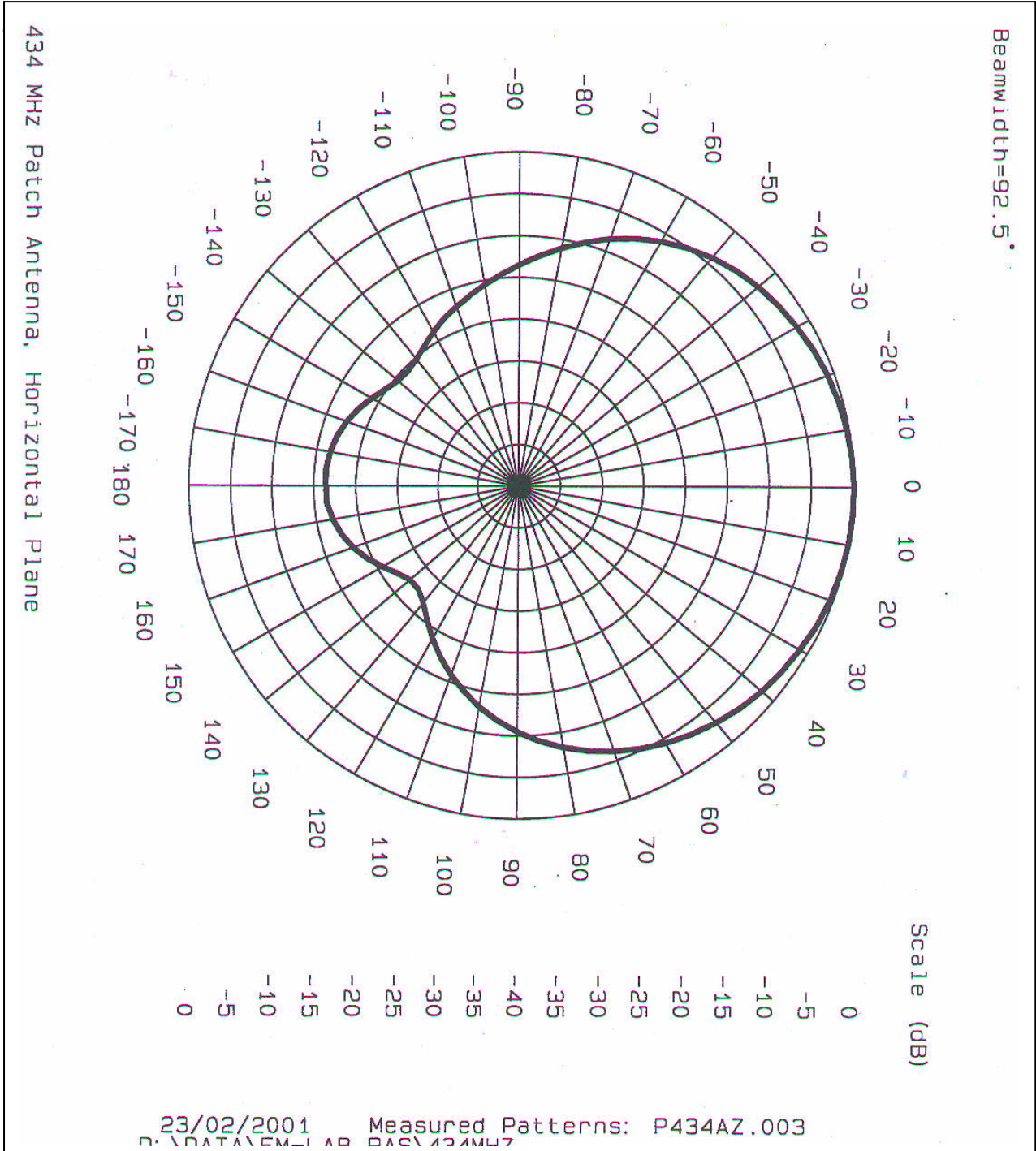
Applications of this antenna are best suited to applications where a directional RF reception field is required, i.e. Access control systems, Vehicle yard management, Parking control systems, Container monitoring, etc.

In an open-air environment the following results were obtained using a **L-TG501** Secure card, **L-RX100** reader with **L-AN300** antenna. The antenna was mounted 2 meters above the ground, tilted 10° towards the ground plane. The following minimum and maximum reception distances of tags positioned upright around the antenna were recorded. These were adjusted by varying the squelch control on the reader :

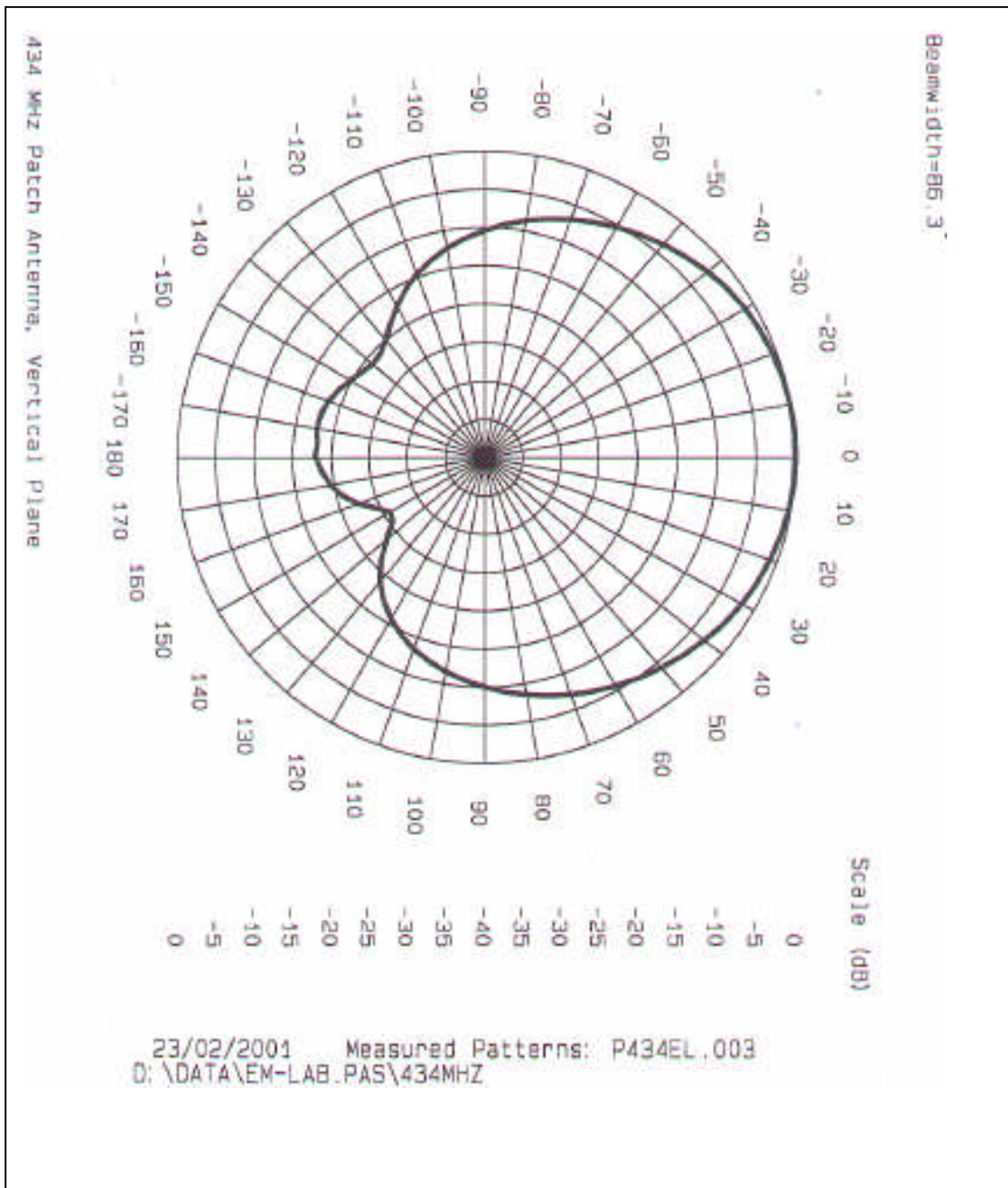
Min Range (m)	Max Range (m)	Position
3	20	0° (directly in front of the antennae face)
2.7	18	45° (to the side of the antenna face)
1.5	10	90° (side of the antenna)
0.9	6	135° (slightly behind the antennae face)
Zero	3	180° (directly behind the antenna face)

Reception Characteristics

(Horizontal Plane)



(Vertical Plane)



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