Annex no. 11

Antenna Characteristics

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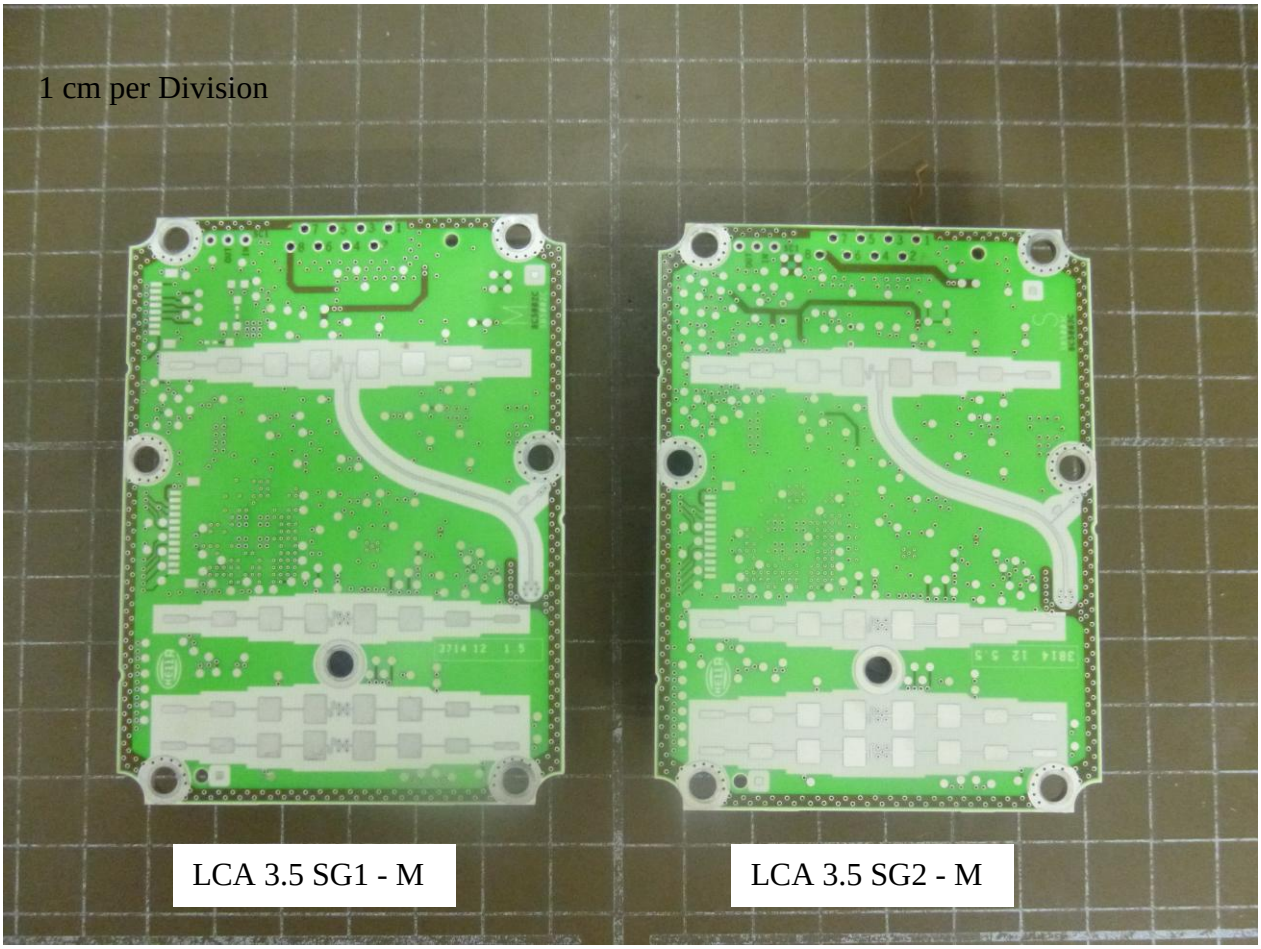
Antenna size



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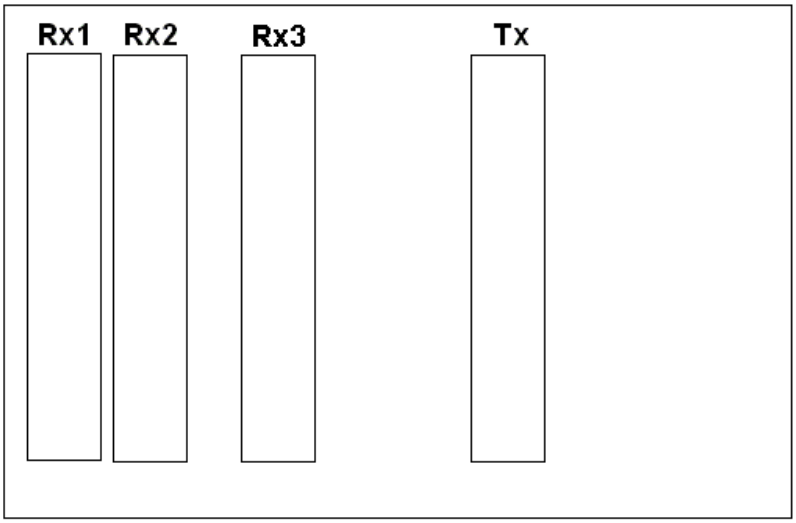
Hella Radar LCA 3.5

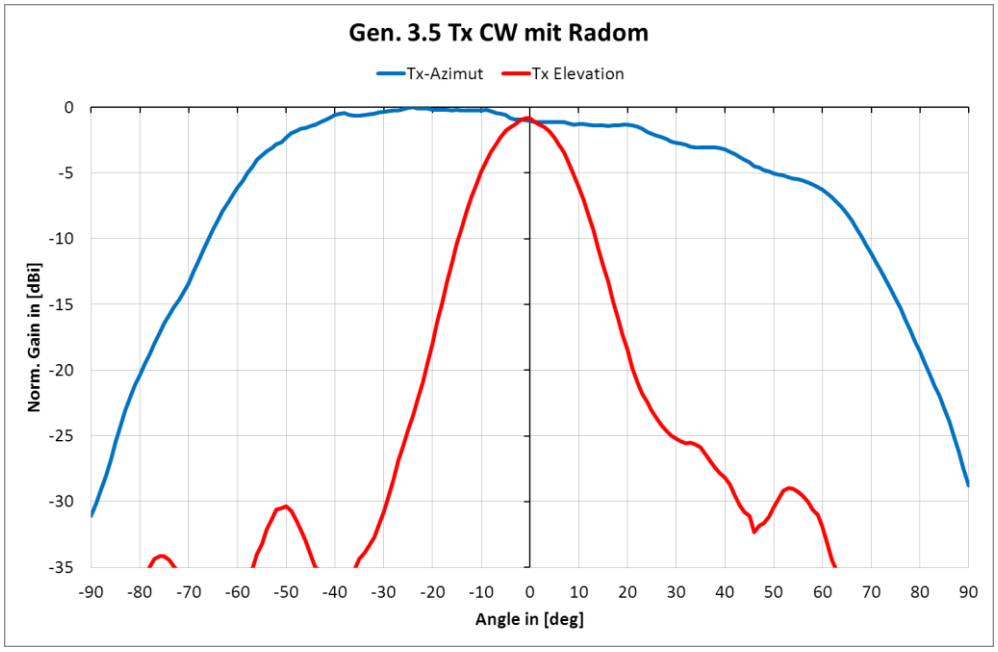
A short antenna description

The radar sensor LCA 3.5 of Hella KGaA Hueck & Co. includes a transmitting antenna (Tx) and three receive antennas (Rx1, Rx2, Rx3) in the same housing:



Each of the antennas is realized from an array of individual planar patches. The polarization of each antenna is vertical.

The transmitting antenna has a relative wide characteristic in azimuth direction and a focused characteristic in the elevation direction. (see diagram below).
The maximum gain of the transmitting antenna is about 10dBi.



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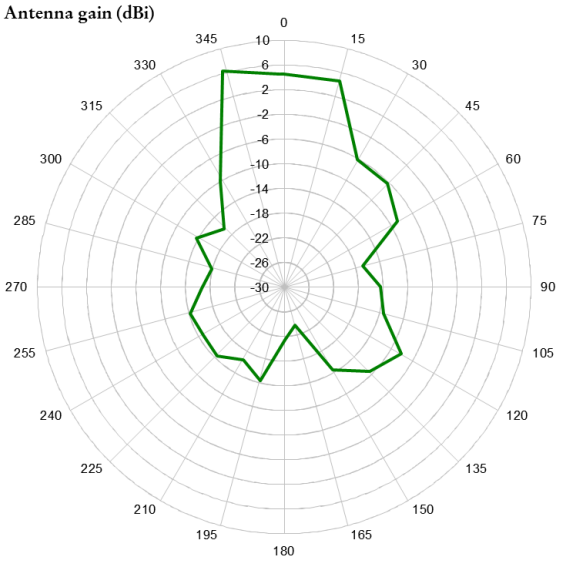
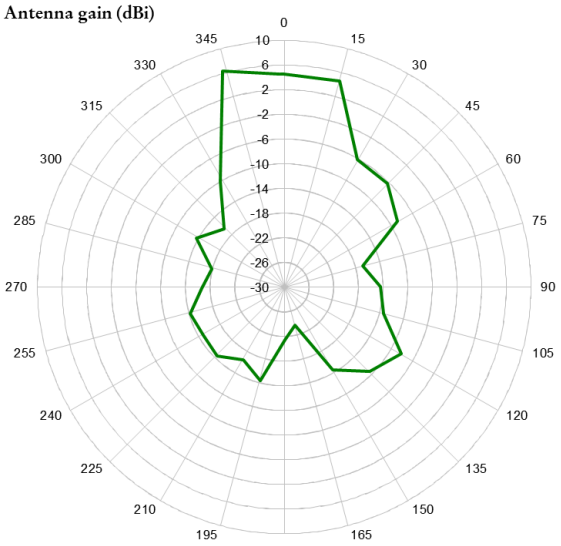
Antenna directivity: horizontally, EUT: on edge

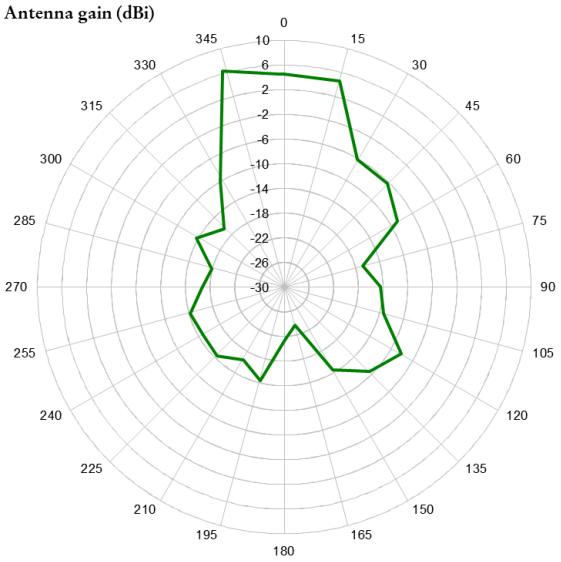
24.0578 GHz



24.1840 GHz



24.2414 GHz



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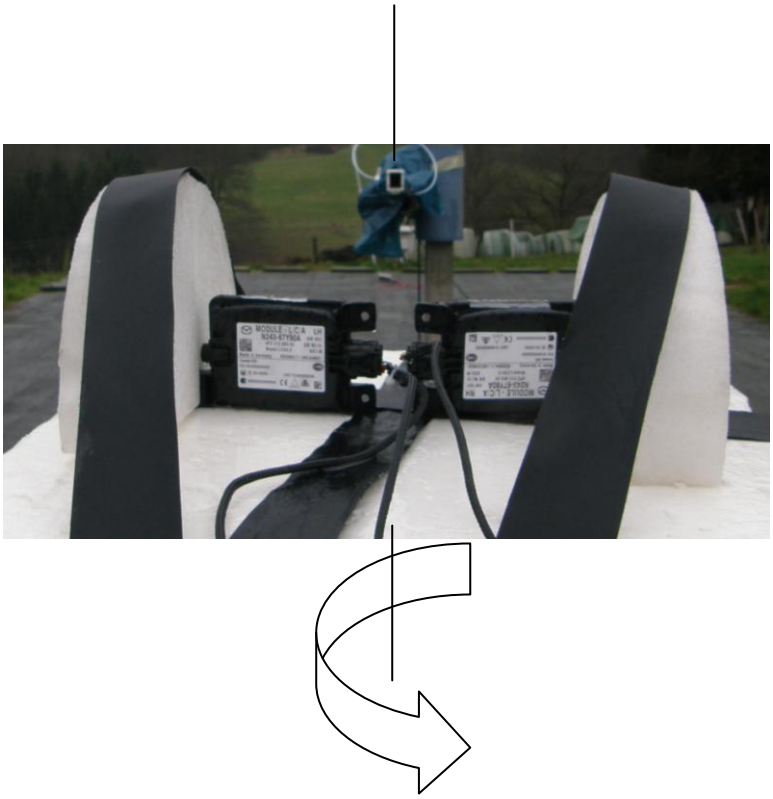
Antenna directivity, test setup: horizontally, EUT: on edge



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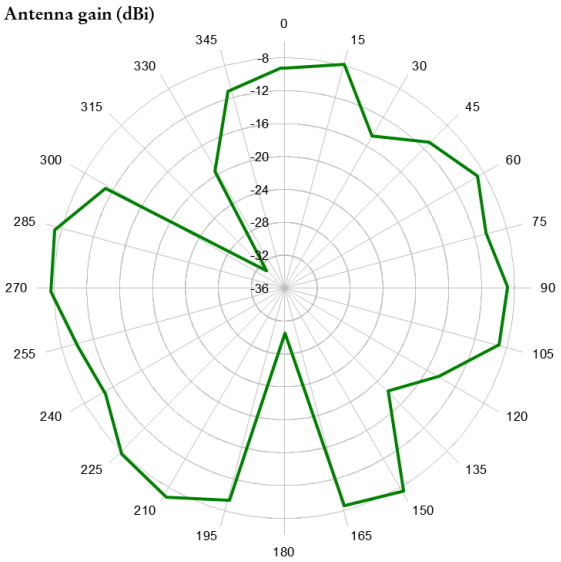
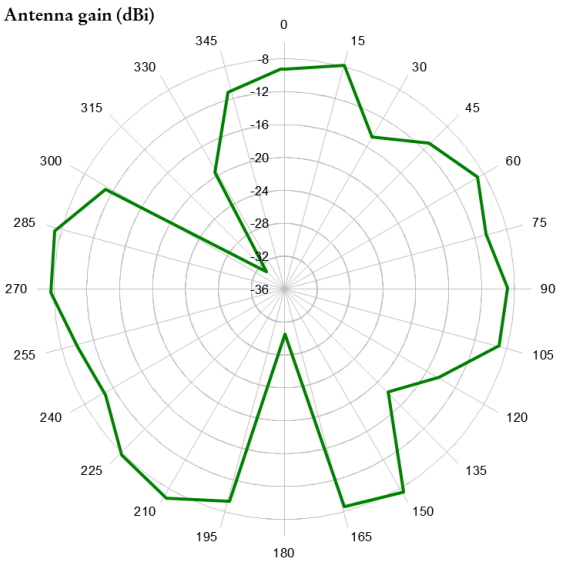
Antenna directivity: horizontally, EUT: lying

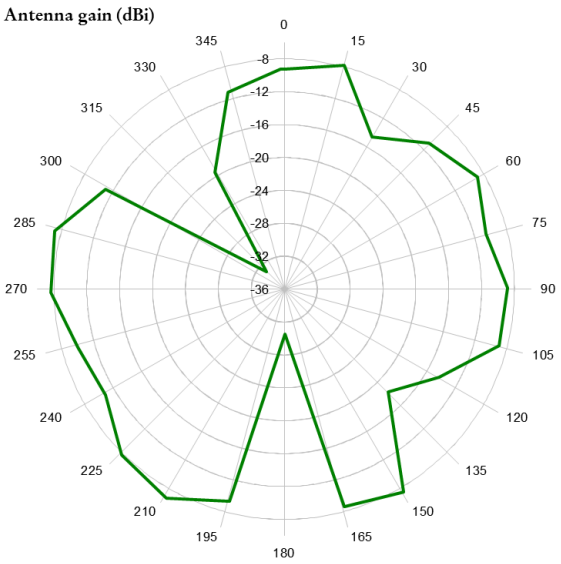
24.0578 GHz



24.1840 GHz



24.2414 GHz



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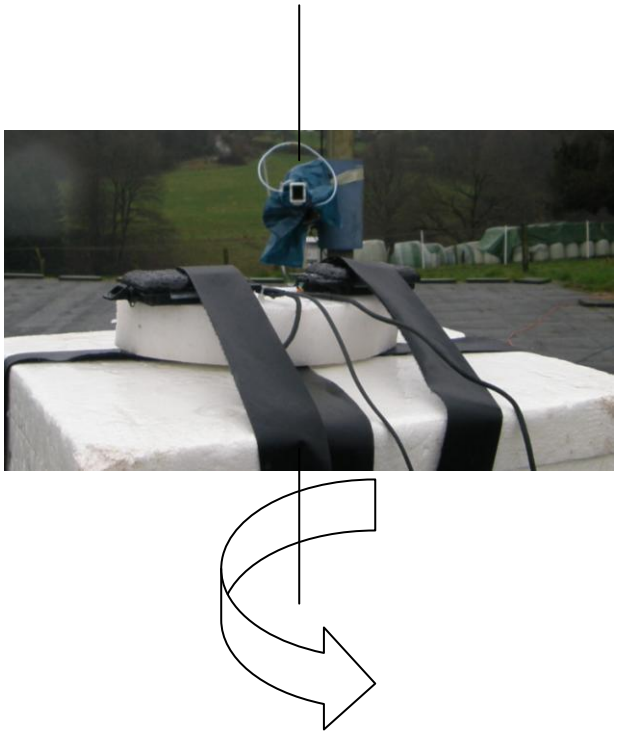
Antenna directivity, test setup: horizontally, EUT: lying



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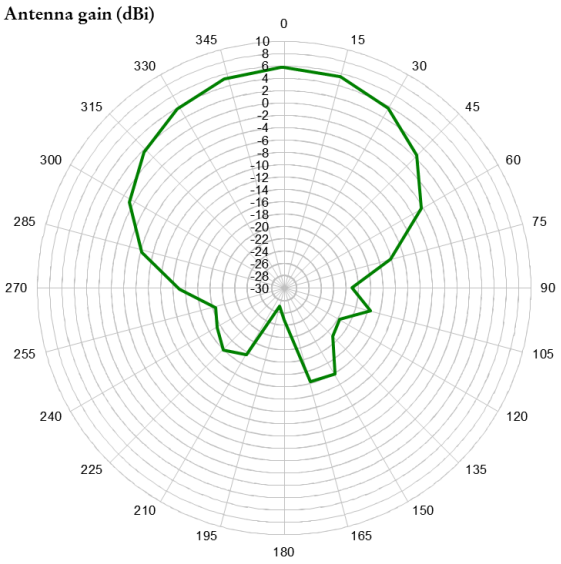
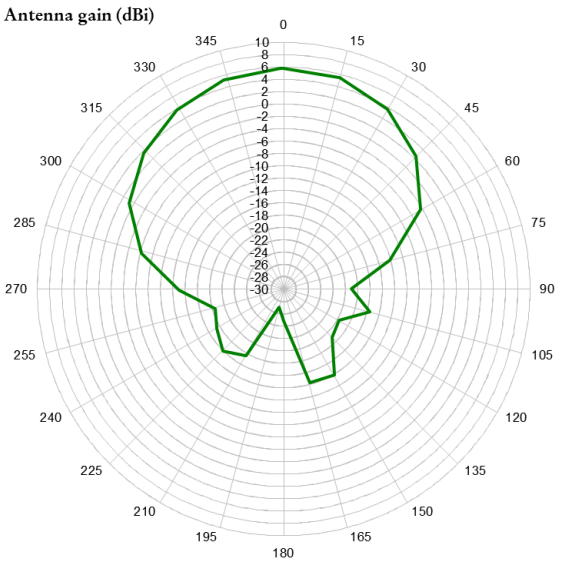
Antenna directivity: horizontally, EUT: upright

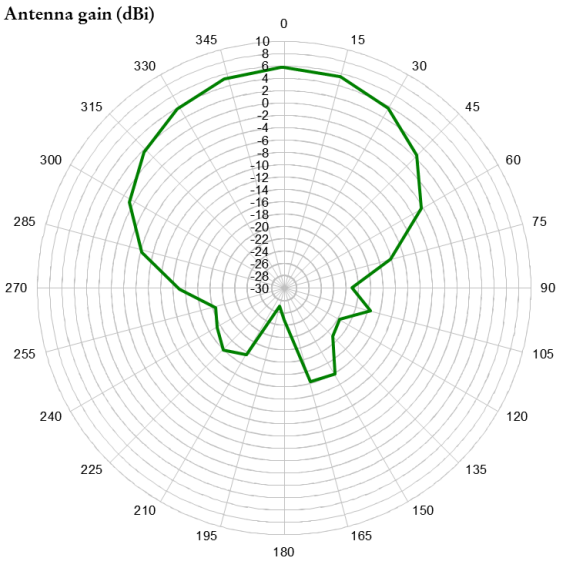
24.0578 GHz



24.1840 GHz



24.2414 GHz



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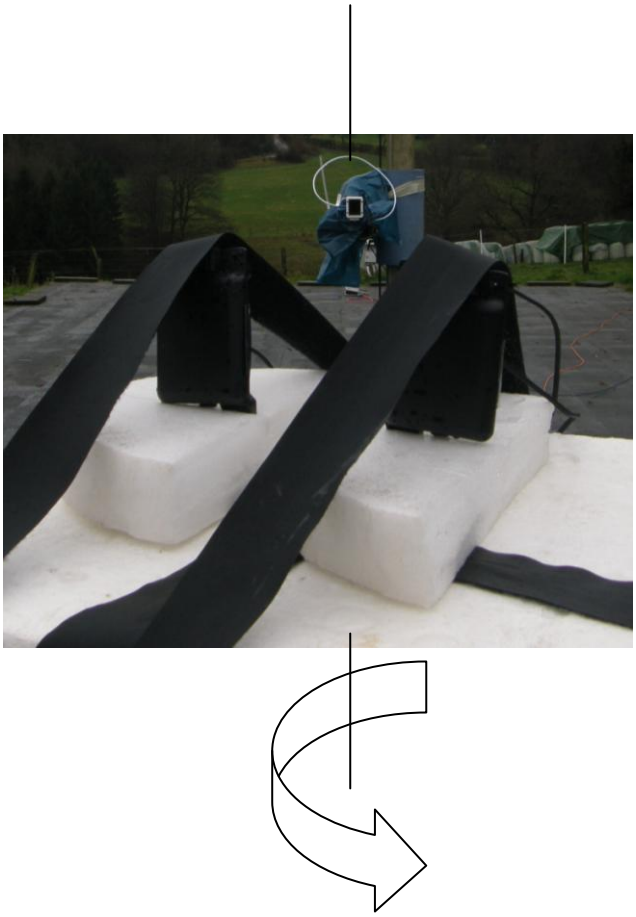
Antenna directivity, test setup: horizontally, EUT: upright



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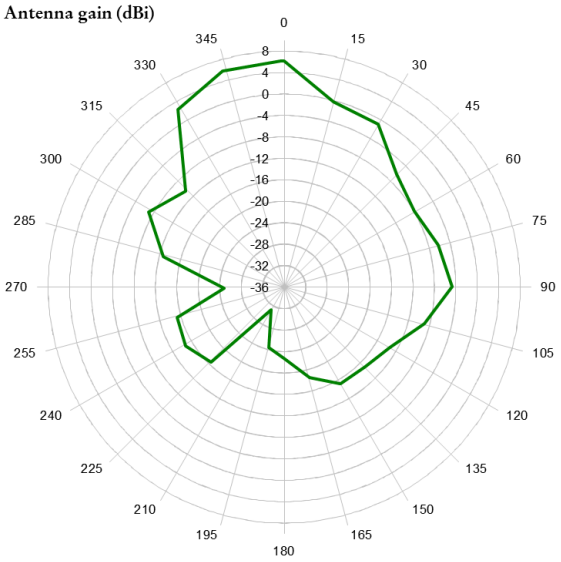
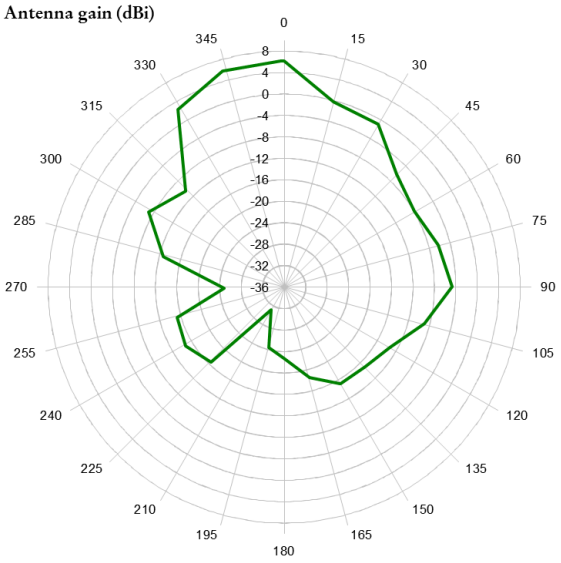
Antenna directivity: vertically, EUT: on edge

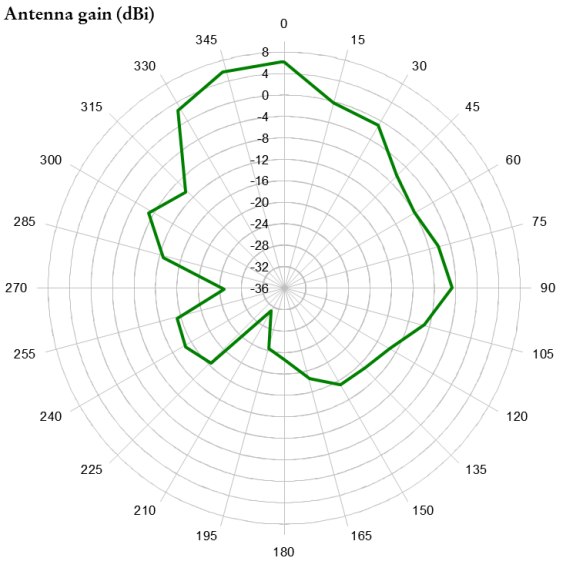
24.0578 GHz



24.1840 GHz



24.2414 GHz



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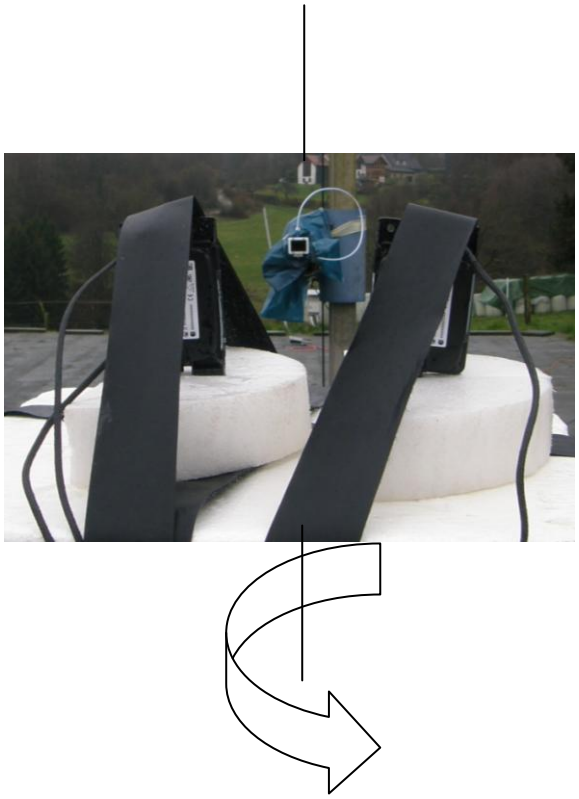
Antenna directivity, test setup: vertically, EUT: on edge



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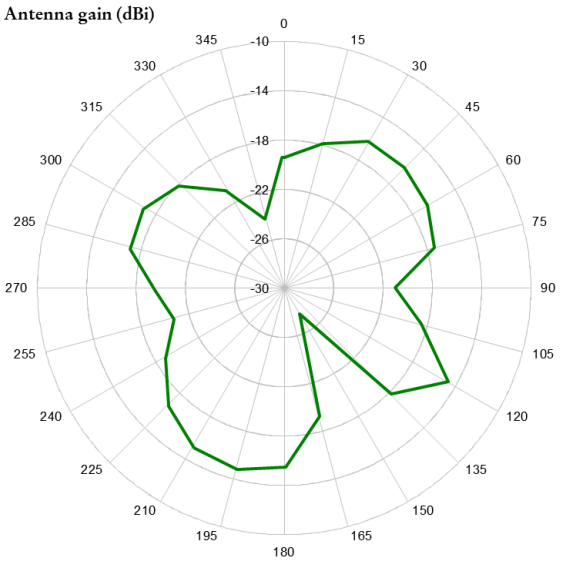
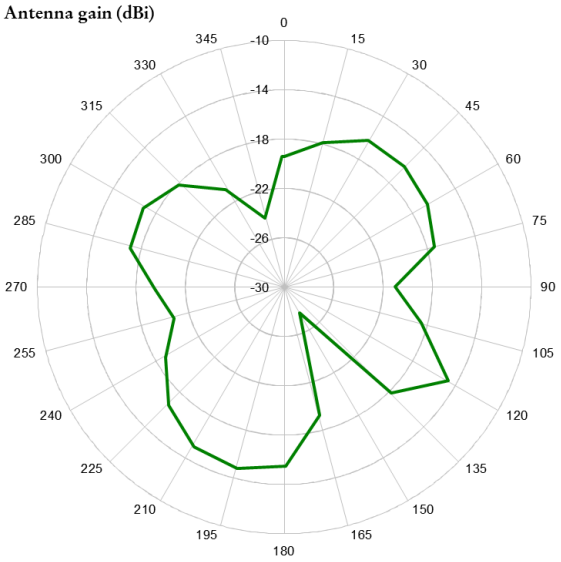
Antenna directivity: vertically, EUT: lying

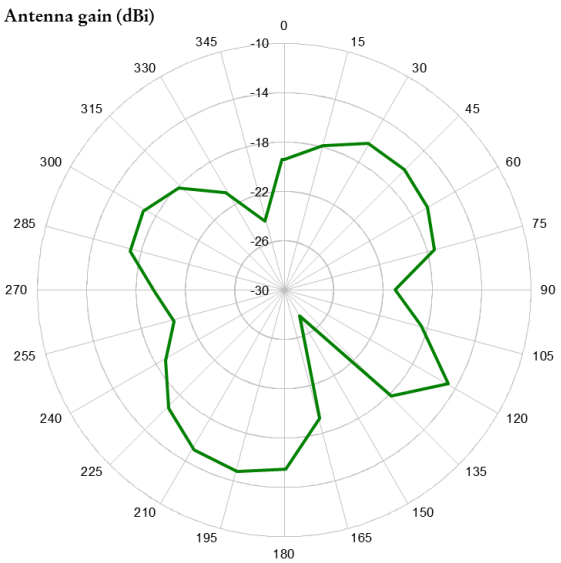
24.0578 GHz



24.1840 GHz



24.2414 GHz



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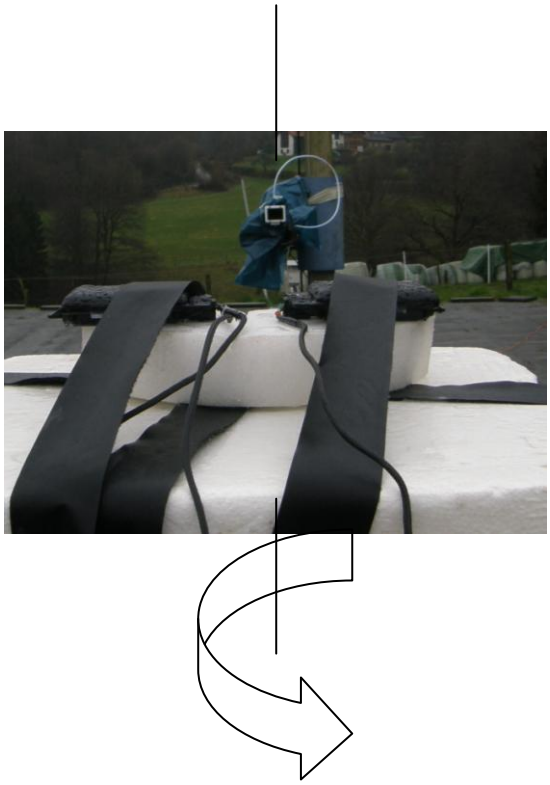
Antenna directivity, test setup: vertically, EUT: lying



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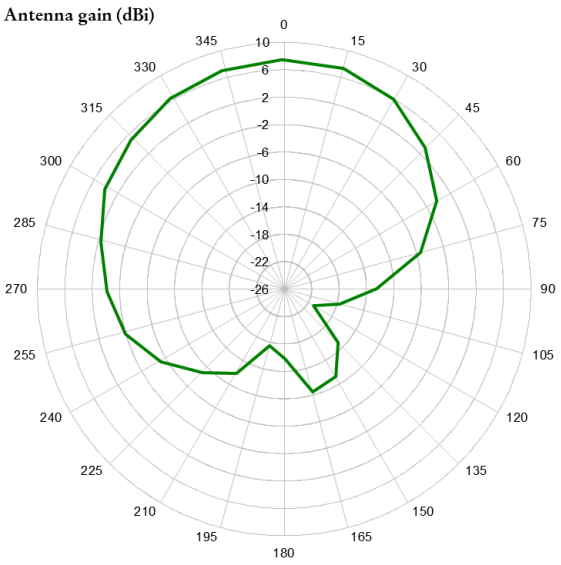
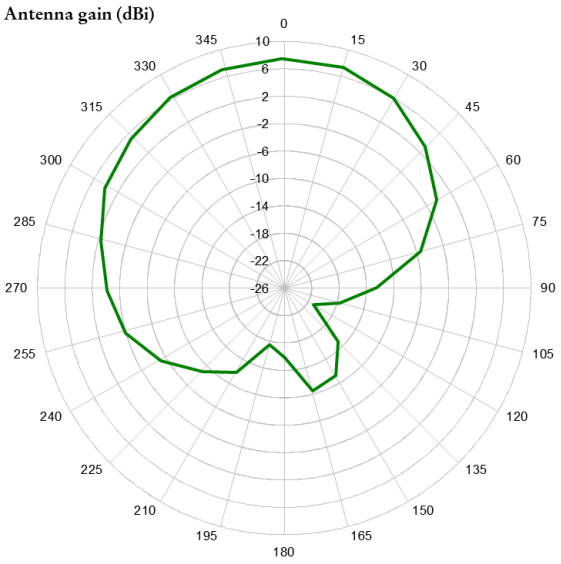
Antenna directivity: vertically, EUT: upright

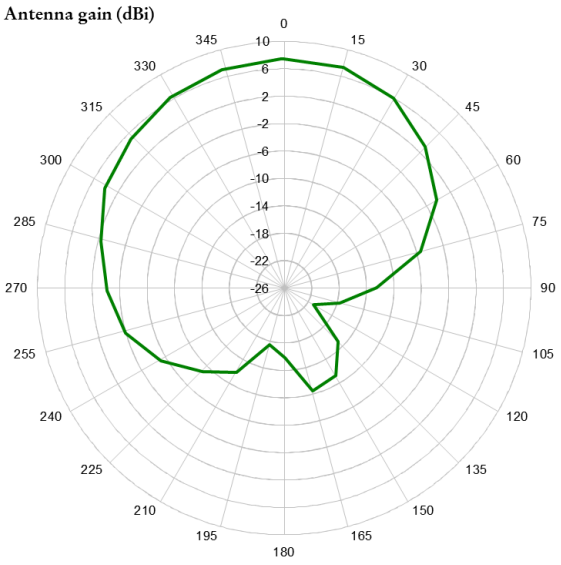
24.0578 GHz



24.1840 GHz



24.2414 GHz



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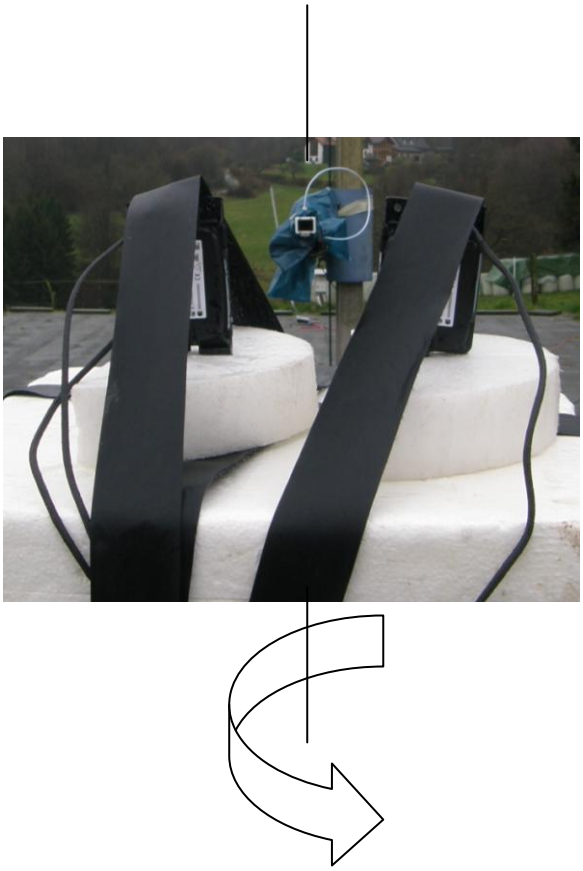
Antenna directivity, test setup: vertically, EUT: upright



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