Wireless and Information Technologies

1. Testing Facilities



"VISTA - Virtual Road - Simulation- and Test Area"

- Combination of radio and automotive technological measurement methods (virtual reality, over-the-air)
- Emulation of environmental and operational conditions and their interactions
- Innovative connected mobility concepts (e.g. C2X, ITS, 5G): Automotive antennas, car sensor technology, EMC, human exposure, vehicle control, driver assistance, convergence of services: Mobile- and satellite communications, radar, navigation

Shielded chamber 16 m \times 12 m \times 9 m Frequency range 70...6000 MHz Turntable Ø 6.5 m, (360 \pm 0.1)°

EMC distance $\leq 5 \text{ m}$ Speed $\leq 100 \text{ km/h}$

Car wheel base ≤ 3.5 m, Mass load ≤ 2.5



Antenna Measurements in VISTA

- · Measurement of automotive antennas as mounted
- · Radiation pattern, gain, XPD or AR
- Antenna arch with multi probe technology

Manufacturer Satimo Industries SAS

Technology Spherical near field measurement

Frequency range 70...6000 MHz

Probes (resolution) 111 at $400...6000 \text{ MHz} (1^{\circ})$

22 at 70...400 MHz (5°)

Max. object size 4 m (<220 MHz)

5.2 m (<3300 MHz) 3 m (5800 MHz)

Measurement time typ. 30 min for 3D pattern

at up to 10 frequency points



