

# **About the Radar Test System**



Compatible with most of the vehicles and sensors



Compact size, intutitive operation. Two tests integrated in one structure



Battery system for maximum flexibility



In-house diagnostics ensure operational readiness and accuracy



Range testing and angular accurace testing of the radar; suitable for MIMO sensors



Simulation capability of different users and speeds



Radar Power Measurement (EIRP)



Check of radar signal bandwidth

### **Features**

- Checking of radar sensor perforance
- Inspection after accident repair
- Checking the paint and the mounting position
- Evaluation of leasing returned goods
- Report after the test

# Autonomous emergency braking (AEBS)

From July 6, 2022, emergency brake assist systems are mandatory for UN-R 152 type-approval. From July 2024, emergency brake assist is mandatory for new registrations of passenger cars (M1) and light commercial vehicles (N1).

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### Software PC



# **Object Simulation Functionality**

#### Complete integrated simulation system

- Radar distance simulator
- Simulation of object angle
  - 1. Horizontal angle
  - 2. Angle in relation to height
  - 3. Angle deformation
- Variation in the size of objects

ADAS/AD, emergency braking (AEB), adaptive cruise control (ACC) functions test-ready

### **Technical Data**

Frequency range	Target simulation	76 GHz - 81 GHz	
	Radar performance (EIRP)	76 GHz - 81 GHz y 24 GHz	
Distances	Minimum/maximum distance	2.5 ~ 250 m	
	Step length	~ 4 cm	
Address	Minimum/maximum	±1 / ±500	
	Upload	±1 km/h	
Antennas	TX	12	Antennas arranged in 3 segments for angle-object simulation
	RX	12	
	TX and RX antennas have different polarization - implemented polarization detection guarantees optimum signal quality		
Feeding	12 V (battery operation possible)		
Control interface	Based on SCPI (Python software available for demo)		

Ask us about our R-HLT30 combined rulloscope to use both devices optimally in one optimized use of both devices in a single column.

# Radar tester - Possible measurements

## Radar power measurement

#### **EIRP** measurement

- Prior knowledge of the sensor and its EIRP
- Pmeas bumper measurement sensor
- The instrument calculates EIRPmeas
- Verification of compliance of EIRPmeas with limit values

EIRP = Equivalent isotropic radiant power

### Radar target simulation

### Cooperative system (requires access to the sensor)

- Radar distance simulation object angle
- 1- Angle and elevation
- 2- Angular deformation

Variation of object size and velocity ADAS/AD ready. For example: AEB, ACC...

#### Radar transparency of bumpers - Transmission coefficient

- Bumper is removed
- The first measurement is made with the bumper removed
- Bumper painted / repaired
- Second measurement with freshly painted / repaired bumper
- ◆ The measured difference is the transmission coefficient of the bumper and can be compared with the manufacturer's specifications.

