perisens
INNOVATION SINCE 2009

With our experience in designing and measuring radomes, we can support you at every stage of the entire product development process: from the concept phase to series production.

Make our automotive radar experience since 2009 work for you and get in touch with us!

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MADE IN GERMANY

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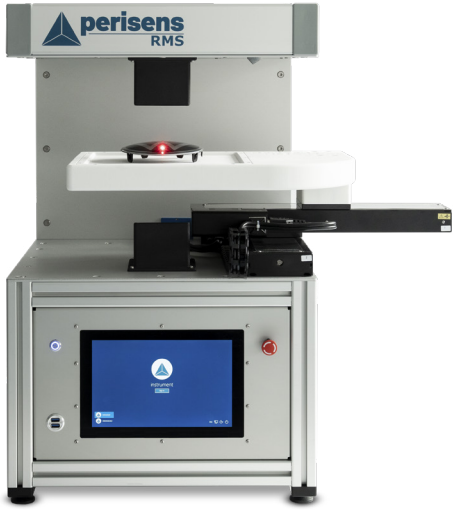
Radome Measurement System (RMS)

Solutions for Radome and Material Measurement from R&D to Production

RMS-D-77/79G

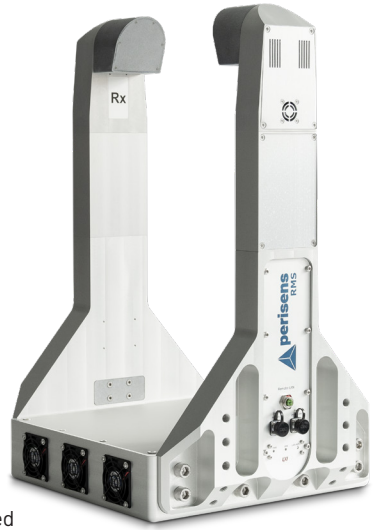
- **Testing of radar covers (radomes) & characterization of materials**
- Measurement of
  - **transmission** in amplitude and phase
  - **imaging reflection** (optional)
  - **permittivity and loss tangent** of plastics and coatings (primers, base & clear coatings)
- **Future proof:** Both automotive radar bands (77/79G)
- **Easy to handle:** Measurement with a single button press
- Includes **simulation software** which allows to evaluate and optimize layered radomes
- Measurement of samples with **small size**
- Fast update time allows **real time measurement**
- **Highest accuracy in market** (better than 0.1 dB / 1 deg for transmission)
- **Comparability** with measurements using **VNA** (Vector Network Analyzer) and **RMS-C**
- Positioning system for **scanning measurements** (optional)
- **Cost effective solution** compared to VNA systems
- **Proven technology:** Used worldwide by leading paint, pigment and polymer manufacturers, exterior part suppliers, sensor producers and OEMs since 2019



RMS-D including xy scanning option

RMS-C-A2-77/79G

- **Production testing of radar covers (radomes)**
- Measurement of
  - **transmission** in amplitude and phase
  - **reflection** (software option)
- **Future proof:** Both automotive radar bands (77/79G)
- **Robust design** enhanced for 24/7 high-precision testing (housing milled from a single block of aluminium)
- **Short measurement time** allows test within a few seconds
- **Flexible pointwise measurement:** Allows to follow the shape of the part in a robot-based setup (e.g. to measure vertical in every point of a bumper)
- **Configurable setup:** Available with different arm lengths and vertical or horizontal (optional) polarization
- **Flexible integration** in production: Prepared for robot-based process; remote control by Ethernet and powered with 24 VDC
- **Highest accuracy in market** (better than 0.1 dB / 1 deg for transmission) and transparent measurement procedure
- **Comparability** with measurements using **VNA** (Vector Network Analyzer) and **RMS-D**
- **Proven technology:** Used worldwide in >100 installations for leading automotive OEMs since 2020



RMS-C including 150 mm arm extension option

Automotive radar cover (radome) testing and material (plastics, coatings, ...) characterization	**Application**	Automotive radar cover (radome) testing
Research & development, quality control	**Application field**	Production (In-line and end-of-line), quality control
76 to 81 GHz (full 77/79G automotive radar bands)	**Frequency range**	76 to 81 GHz (full 77/79G automotive radar bands)
1-way transmission in amplitude and phase permittivity and loss tangent imaging reflection in amplitude (optional)	**Measured values**	1-way transmission in amplitude and phase reflection in amplitude (software option)
±0.1 dB / ±1 deg	**Measurement accuracy (transmission)**	±0.1 dB / ±1 deg
> 40 dB	**Dynamic range**	> 40 dB
85 ~ 264 VAC, 47 ~ 63 Hz	**Power supply**	24 VDC
45	**Weight in kg**	23
420 x 530 x 815 (W x L x H)	**Dimensions in mm**	380 x 440 x 500-650 (W x L x H)
30 mm aperture, xy scanning option, imaging reflection, hor. polarization	**Options**	100 and 150 mm arm extension, reflection measurement, hor. polarization

✔	**Radome evaluation**	✔
✔	**Material characterization**	-
✔	**Radome simulation**	-