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

More information on **www.perisens.de**

Radome Measurement Systems

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

RMS-D-77 | 79G

- Testing of radar covers & 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
- **Simulation software** included to evaluate and optimize layered radomes.
- **Small-size** sample measurement
- **Real-time measurement:** Enabled by fast update time
- **Highest accuracy in market:** Better than 0.1 dB | 1 deg for transmission
- **Comparability** with measurements using VNA (Vector Network Analyzer) and RMS-C
- **Scanning measurements** with positioning system
- **Data Analyzer GUI** for offline measurement data analysis and layer stack simulation (optional)
- **Self On-Site Calibration:** Reduces downtime and keeps equipment in peak condition with minimal disruption
- **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
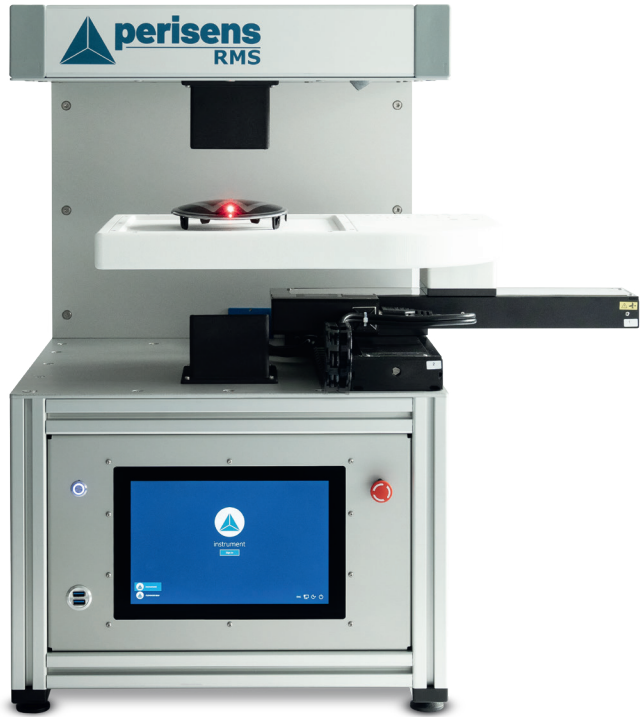
RMS-D including scanning options

RMS-C-77 | 79G

- Production testing of radar covers
- Measurement of
  - **transmission** in amplitude and phase
  - **reflection** (optional)
- **Future proof:** Both automotive radar bands (77 | 79G)
- **Robust design:** 24/7 high-precision testing with housing milled from a single block of aluminum
- **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 polarization (optional)
- **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
- **Self On-Site Calibration:** Reduces downtime and keeps equipment in peak condition with minimal disruption
- **Proven technology:** Used worldwide in >200 installations for leading automotive OEMs since 2020

RMS-C including arm extension option

RMS-D-77 | 79G	Parameter	RMS-C-77 | 79G
Automotive radar cover testing Material characterization (pigments, plastics, coatings, …)	**Application**	Automotive radar cover testing
Research & development	**Application field**	Production in-line and end-of-line
76 to 81 GHz	**Frequency range**	76 to 81 GHz
● Transmission amplitude and phase ● Material permittivity and loss tangent ○ Transmission imaging ○ Reflection imaging ○ Reflection single-point	**Measured parameters**	● Transmission amplitude and phase ○ Reflection
±0.1 dB / ±1 deg	**Transmission measurement accuracy**	±0.1 dB / ±1 deg
> 40 dB	**Transmission 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 transmission scanning, reflection imaging, offline GUI, hor. polarization	**Options**	100 mm arm extension, 150 mm arm extension, reflection measurement, hor. Polarization
✓	**Material characterization**	-
✓	**Radome design & simulation**	-
✓	**Radome evaluation**	✓

● yes ○ optional