

MMWave Radar Industry News Summary - March 2025

This presentation summarizes key news and developments within the mmWave radar industry for March 2025, drawing insights from recent articles published by ChipsInsight.

Slide 1: Automotive Radar Advancements

- **Next-Gen Imaging Radar:** Several companies are pushing the boundaries of automotive radar technology. bitsensing highlighted their 4D imaging radar's all-weather reliability and high resolution for autonomous driving and smart infrastructure. [48] <https://www.mk.co.kr/economy/view/2025/155483> They also emphasized the growing role of AI in radar development. [50] <https://lnkd.in/gkAPyeNt> Arbe showcased their Phoenix Perception Radar, emphasizing its 2K ultra-high resolution and AI-driven processing for superior accuracy in object detection and tracking. [52] <https://lnkd.in/dE7MQ5M> Calterah introduced their Andes SoCs, designed for high-performance imaging radar with 5 GHz continuous sweep, 2500+ DMIPS computing power, and cost-effective 22 nm CMOS process. [45] https://lnkd.in/die_6aFT
- **High-Speed Applications:** Beijing Autoroad Technology demonstrated the effectiveness of 4D imaging radar in high-speed intelligent driving systems, using deep learning for real-time detection and target recognition in highway environments. [43] <https://chipsinsight.com/high-speed-intelligent-driving-applications-of-4d-imaging-radar/> Their system's performance was acknowledged by a leading Asian Tier 1 supplier.
- **Pedestrian Detection Challenges:** Arbe addressed the challenge of detecting pedestrians near guardrails using high dynamic range in their 4D imaging radar. Traditional radars struggle due to limited dynamic range, but Arbe's radar differentiates between strong guardrail reflections and weak pedestrian signals. [27] <https://chipsinsight.com/arbe-4d-imaging-radar-using-high-dynamic-range-to-address-new-challenges-in-pedestrian-detection/>
- **Testing and Validation:** dSPACE showcased a lab setup for automated radar sensor testing, using their Radar Test Bench, AURELION visualization tool, and Automotive Simulation Models (ASM). NXP India utilizes this environment for multitarget, multi-angle radar simulations with DARTS. [7] <https://ow.ly/EzjJ50VjKcP>

Slide 2: mmWave Radar in Smart Applications

- **Smart Home Integration:** TsingLan Technology showcased smart home solutions at the Shenzhen Home Design Week, highlighting their AI Vital Sign Detector. This

millimeter-wave radar device provides non-contact monitoring of movement and vital signs, enhancing home safety and enabling linkage with other smart devices.

[38] <https://chipsinsight.com/the-future-has-come-tsinglan-technology-leads-a-new-paradigm-of-safe-and-healthy-smart-life-with-millimeter-wave-radar/> Merrytek introduced a new generation of PIR motion sensors with planar/curtain lens design for seamless integration with smart home systems.

[79] <https://chipsinsight.com/merrytek-new-generation-pir-motion-sensor-adopts-planar-curtain-lens-meets-various-needs/> EasyDetek Technology launched the EDQ15L Bluetooth radar module for smart lighting control, allowing users to adjust settings via a mobile app. [40] <https://chipsinsight.com/edq15l-with-bluetooth-radar-module-use-your-phone-to-control-every-strand-of-light/>

- **Smart Healthcare:** TsingRay Technology's digital medical and elderly care solution was praised by local media in Nanchong, Sichuan. Their millimeter-wave radar and AI system enables non-contact vital sign monitoring, fall detection, and generates sleep quality reports. [11] <https://chipsinsight.com/qing-lei-technology-digital-medical-and-elderly-care-plan-landed-in-sichuan-nanchong-the-intelligent-elderly-care-model-received-praise-from-local-media/> Interadar's AI seamless health monitoring system, "Xiaomei Baiying AI Health Island," uses millimeter-wave radar to capture vital signs, build health models, and connect families and institutions. [28] <https://chipsinsight.com/xiao-mei-bai-ying-ai-health-island-contactless-monitoring-empowers-national-health/> TsingLan Technology's millimeter-wave radar products were included in Xi'an's Smart Healthy Elderly Subsidy List. [12] <https://chipsinsight.com/good-news-tsingray-technology-millimeter-wave-radar-product-selected-for-the-xian-city-smart-health-and-elderly-care-subsidy-list/>
- **Smart Traffic Management:** Smartmicro highlighted the advantages of radar sensors for traffic applications, including intersection and highway management, bridge and tunnel monitoring. [6, 8] <https://chipsinsight.com/linkedin-post-text-how-does-radar-support-adaptiv/>, <https://chipsinsight.com/linkedin-post-text-advantages-of-radar-sensors-fo/> Xinhua News Agency reported on the successful implementation of Xiangde Information's AI real-time traffic control system in Hefei, improving peak traffic efficiency by 50%. [18] <https://chipsinsight.com/xinhua-news-praised-hefei-economic-development-zone-launched-ai-real-time-traffic-control-system-peak-period-traffic-efficiency-improved-by-50/> Desay SV's precise perception technology, using millimeter-wave radar, was recognized for its contribution to highway digital transformation. [72] <https://chipsinsight.com/desay-sv-precise-perception-technology-empowers-highway-digital-transformation-and-upgrade/> RDA Tech showcased traffic radars and solutions at the Expressway Informatization Conference. [26] <https://chipsinsight.com/exhibition-frontline-smart-transportation-perceiving-the-future-rda-tech-intelligent-sensing-invites-you-to-join-the-27th-expressway-informatization-conference-and-technology-product-expo/>

Slide 3: Industry Partnerships and Collaborations

- **NXP and Smartmicro:** NXP and Smartmicro announced a project collaboration within the IPCEI (Important Projects of Common European Interest) initiative, focusing on automotive radar innovation. [60] <https://chipsinsight.com/linkedin-post-text-nxp-visits-smartmicro-to-kick/>
- **Nano Radar and Milestone:** Nano Radar developed a plugin for Milestone VMS, enabling seamless integration of their security radars with Milestone XProtect products. This simplifies deployment and allows for radar alarm and trajectory data synchronization. [29] <https://chipsinsight.com/seamless-docking-one-click-deployment-nano-radar-develops-milestone-vms-plugin-full-adaptation-to-xprotect-products/>
- **TsingLan Technology and Ministry of Civil Affairs:** TsingLan Technology assisted the Ministry of Civil Affairs in releasing the "Millimeter-Wave Radar Monitoring Alarm" industry standard, promoting standardization in the intelligent, contactless monitoring field. [10] <https://chipsinsight.com/tsinglan-technology-assists-the-ministry-of-civil-affairs-in-releasing-new-industry-standards-millimeter-wave-radar-opens-a-new-era-of-intelligent-contactless-monitoring/>
- **Plextek and Flowcopter:** Plextek partnered with Flowcopter to integrate their ubiquitous radar technology into heavy-lift UAVs for enhanced detect and avoid capabilities, improving safety in BVLOS operations. [53] <https://chipsinsight.com/linkedin-post-text-as-the-demand-for-reliable-a/>
- **Intron Technology and Horizon Robotics:** Intron Technology, a subsidiary of Intron Technology Holdings Limited, launched the MADC4.0 domain controller solution based on Horizon Robotics' Journey 6E/M, deepening their collaboration in intelligent driving. [75] https://www.intron-tech.com/en/news_details.php?id=143837
- **Calterah and AUTOSAR:** Calterah highlighted their AUTOSAR software collaborative platform at the AUTOSAR China Day forum, showcasing how it streamlines automotive chip software development and reduces costs. [25, 30] <https://chipsinsight.com/linkedin-post-text-traditional-serial-developme/>, <https://chipsinsight.com/calterah-autosar-platform-assists-automotive-chip-products-efficient-implementation/>

Slide 4: New Product Launches and Company News

- **SGR semi:** SGR semi launched new radar chips SRK1108 (high-performance, low-power) and SRK1107S (compact, flexible) at Sensor Shenzhen. [4, 5] <https://chipsinsight.com/sgr-invites-you-to-the-sensor-shenzhen-exhibition-the-new-product-launch-event-is-coming-with-a-big-arrival/>, <https://chipsinsight.com/sgr-invites-you-to-the-sensor-shenzhen-exhibition-the-new-product-launch-event-is-coming-with-a-big-arrival-2/> They also won the 'Best Management Award' from the Industrial Technology Research Institute. [39] <https://chipsinsight.com/the-announcement-of-outstanding-incubation-enterprises-of-the-industrial-technology-research-institute-for-the-year-2024-sj-semi-won-the-best-management-award/>
- **Infineon:** Infineon showcased sensor products and solutions at Sensor Shenzhen, including MEMS microphone sensors. [37] <https://chipsinsight.com/empowering-the-smart-internet-of-things-infineon-showcases-latest-sensor-products-and-solutions-at-sensor-shenzhen-2025/>
- **InnoSenT GmbH:** InnoSenT launched the IDR-2050 distance radar, a 60 GHz mmWave sensor designed for precise distance measurement in industrial applications. [41, 47] [https://chipsinsight.com/linkedin-post-text-precision-meets-efficiency-/,](https://chipsinsight.com/linkedin-post-text-precision-meets-efficiency-/) <https://chipsinsight.com/linkedin-post-text-introducing-the-idr-2050-pre/>
- **HiLink:** HiLink launched the HLK-LD2460 radar module with Bluetooth for multi-target human trajectory tracking. [35] <https://chipsinsight.com/new-model-24g-two-transmit-four-receive-with-bluetooth-multi-target-human-body-trajectory-tracking-radar-module/> They also offered the HLK-LD2451 radar module for vehicle collision avoidance at a competitive price. [85] <https://chipsinsight.com/more-than-30-yuan-to-achieve-vehicle-collision-avoidance-hlk-ld2451-radar-module-can-handle-it/>
- **Mistral:** Mistral introduced the DCP1000 data capture and playback card for mmWave radar applications, built on the Lattice Nexus platform. [16] <https://chipsinsight.com/linkedin-post-text-introducing-dcp1000-a-compact/>
- **Novelic:** Novelic offered semiconductor IPs and design services, including mmWave RF blocks and RISC-V based DSP accelerators for radar applications. [14, 15] [https://chipsinsight.com/linkedin-post-text-novellic-offers-a-portfolio-of/,](https://chipsinsight.com/linkedin-post-text-novellic-offers-a-portfolio-of/) <https://chipsinsight.com/linkedin-post-text-novellic-offers-a-portfolio-of-2/>

Slide 5: Market Trends and Analysis

- **Growing Demand for Radar:** The IDTechEx report, "Automotive Radar Market 2025-2045," highlighted the growth of the automotive radar market, driven by side radar and the demand for high-resolution 4D radar. [24] <https://chipsinsight.com/idtechex->

[automotive-radar-market-report-three-key-points-analysis/](#) The report also discussed the need for technological transformations to overcome performance bottlenecks.

- **Smart Elderly Care Market:** The 2025 National Two Sessions in China highlighted the importance of the "silver economy," with smart elderly care as a key focus. [36] <https://chipsinsight.com/industry-information-two-sessions-focus-intelligent-elderly-care-future-scene/> This has led to increased attention on smart elderly care solutions and technologies.
- **Focus on Safety and Reliability:** Smartmicro emphasized the all-weather reliability of their radar sensors for traffic management, highlighting their performance in adverse conditions. [8] <https://chipsinsight.com/linkedin-post-text-embracing-all-weather-condit/> Provizio positioned their radar systems as an essential part of vehicle safety, focusing on seamless integration and discreet design. [62] <https://chipsinsight.com/linkedin-post-text-safety-isnt-just-built-its/>

Slide 6: Events and Conferences

- **MWC 2025:** Analog Devices showcased wireless solutions at MWC 2025, focusing on security, performance, and energy efficiency. [64, 70] <https://chipsinsight.com/adi-participation-in-mwc-2025-innovative-wireless-solu/>, <https://chipsinsight.com/mwc25-exhibition-preview-adi-is-dedicated-to-assisting-in-driving-innovation-across-the-entire-ecosystem/>
- **Tech.AD Europe:** Arbe presented their Phoenix Perception Radar at Tech.AD Europe, highlighting its capabilities in autonomous vehicle safety. [23, 63] <https://chipsinsight.com/agenda-tech-ad-europebook-nowhomeagend/>, <https://chipsinsight.com/linkedin-post-text-join-ram-machness-our-chief-b/>
- **Sensor Shenzhen:** SGR semi and Infineon showcased their latest sensor products and solutions. [4, 5, 37] <https://chipsinsight.com/sgr-invites-you-to-the-sensor-shenzhen-exhibition-the-new-product-launch-event-is-coming-with-a-big-arrival/>, <https://chipsinsight.com/sgr-invites-you-to-the-sensor-shenzhen-exhibition-the-new-product-launch-event-is-coming-with-a-big-arrival-2/>, <https://chipsinsight.com/empowering-the-smart-internet-of-things-infineon-showcases-latest-sensor-products-and-solutions-at-sensor-shenzhen-2025/>
- **Kyushu Auto Ecosystem Expo:** Nano Radar Technology showcased automotive radar products and solutions, including 360° radar detection and multi-level alarm systems. [71, 89] <https://chipsinsight.com/3-big-plans-6-types-of-radars-nano-radar-technology-is-about-to-debut-at-the-2025-kyushu-auto-ecology->

[expo/](https://chipsinsight.com/exhibition-direct-hit-millimeter-wave-radar-technology-ignites-kyushu-auto-show-nano-radar-wins-global-customers-favor/), <https://chipsinsight.com/exhibition-direct-hit-millimeter-wave-radar-technology-ignites-kyushu-auto-show-nano-radar-wins-global-customers-favor/>

- **AWE 2025:** MicRadar, a subsidiary of Songyuan Technology, showcased millimeter-wave radar solutions for household appliances at AWE 2025. [34] <https://chipsinsight.com/exhibition-preview-micradar-sincerely-invites-you-to-join-the-2025-awe-technology-feast/>
- **Embedded World 2025:** InnoSenT GmbH showcased radar technology at Embedded World 2025 as a partner of Bosch. [61, 88] <https://chipsinsight.com/linkedin-post-text-meet-innosent-at-embedded-wo/>, <https://chipsinsight.com/linkedin-post-text-a-great-start-at-embedded-wo/>

Slide 7: Key Technological Focus Areas

- **High-Resolution Imaging:** The demand for high-resolution imaging radar continues to grow, with companies like Arbe and Calterah leading the way in developing advanced chipsets and solutions.
- **AI and Machine Learning:** AI and ML are playing an increasingly important role in radar signal processing, object detection, and sensor fusion, as highlighted by bitsensing, Arbe, and Provizio.
- **Low Power Consumption:** Low power consumption is a key focus for radar sensor development, enabling new applications in battery-powered and power-constrained devices, as demonstrated by Texas Instruments and InnoSenT GmbH.
- **Sensor Fusion:** Sensor fusion is becoming increasingly important for creating robust and reliable perception systems, with radar playing a central role in combination with other sensor modalities.
- **Software-Defined Radar:** The trend towards software-defined vehicles is impacting radar development, with companies like Arbe and Calterah emphasizing the software-defined nature of their radar solutions.

This concludes the summary of mmWave radar industry news for March 2025. Please refer to the cited ChipsInsight articles for further details.