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Arbe Launches Final RF Chipset Production Configuration

Increases Range, Reduces Power Consumption, and Offers Industry-First Combination of Design Flexibility with Ultra-High Resolution for Optimal Performance Across Customer Verticals and Driving Scenarios

TEL AVIV, Israel, May 3, 2022 /PRNewswire/ --Arbe Robotics Ltd. (Nasdaq: ARBE) ("Arbe"), the global leader in next-generation Imaging Radar solutions, today announced the launch of the final RF chipset production configuration, which increases range, reduces power consumption, and offers the industry-first combination of design flexibility with ultra-high resolution, providing optimal performance across driving scenarios and customer verticals, including commercial vehicles and trucks.

The new RF Chipset delivers the best radar image quality on the market, enhancing the company's offering with long range sensing and high sensitivity, reducing power

consumption significantly while ensuring stability of performance and auto-calibration across the entire automotive temperature range. Arbe's RF solution detects objects in challenging driving scenarios and complicated use cases such as a vehicle under a bridge, a tire on the road, a pedestrian near a guardrail, a motorcyclist over 250 meters away, and more.

"Arbe is constantly pushing the envelope to provide our customers with perception radar that surpasses any other radar solution on the market," says Kobi Marenko, CEO of Arbe. "Our new RF chipset is designed to provide the highest level of performance and safety to all automotive verticals, including passenger vehicles, commercial vehicles, delivery robots and trucks, which have unique safety requirements."

Key new transmitter chip features include:

- Best-in-class output power of 12.5 dBm from a single channel, allowing long range detection of over 300m with a single channel
- Support for simultaneous transmission from multiple channels, or beamforming, which
    - Increases the detection range of pedestrians and two wheelers to 350m, and vehicle detection to 800m, valuable for driving scenarios such as unprotected left turns, T junction turning and highway merging.
    - Provides the flexibility in radar waveform design for optimal performance across verticals like trucks and other commercial vehicles
    - Increases the ability to detect small objects at a long range, making it useful in developing free space mapping facing forward or backward

Beamforming is available in 12*16 radars, but due to the low channel count, it results in a reduction of the MIMO array size, and hence reduces resolution and increases sidelobes. Arbe's 48*48 radar solution offers 10x MIMO channels and is able to increase the flexibility of radar design with minimal impact on resolution.

- 50% reduction power consumption per chip

Key new receiver chip features Include:

- Stability over the entire automotive temperature range of -40 °C to +125 °C
- Over 50% power consumption reduction per chip, exceeding all other solutions in power consumption per channel
- Reduction of noise figure to 11 dB, which is the best noise figure in the industry. The high sensitivity of the system contributes to the enhanced range as well as the ability to detect small objects
- ASIL-B, AEC-Q100, and Automotive Grade 2, and Grade 1 ready

Arbe's proprietary RF chipset leverages the latest RF processing technology and state-of-the-art RF performance at the lowest cost per channel. Arbe's high-resolution relies on 48 transmitting and 48 receiving antennas to create a wide, 2304 virtual channel array that natively achieves high dynamic range and avoids angular ambiguities and phantom objects. The ultra-high resolution allows the system to track moving objects, map the environment, and detect stationary obstacles, generating free-space mapping for easy path planning and accurate localization.

About Arbe

Arbe (Nasdaq: ARBE), a global leader in next-generation Imaging Radar Chipset solutions, is spearheading a radar revolution, enabling truly safe driver-assist systems today while paving the way to full autonomous-driving. Arbe's imaging radar is 100 times more detailed than any other radar on the market and is a mandatory sensor for L2+ and higher autonomy. The company is empowering automakers, tier-1 suppliers, autonomous ground vehicles, commercial and industrial vehicles, and a wide array of safety applications with advanced sensing and paradigm-changing perception. Arbe is a leader in the fast-growing automotive radar market that has an estimated projected total addressable market of $11 billion in 2025. Arbe is based in Tel Aviv, Israel, and has an office in the United States.

Cautionary Note Regarding Forward-Looking Statements

This press release may contain "forward-looking statements" within the meaning of the Securities Act of 1933 and the Securities Exchange Act of 1934, both as amended by the Private Securities Litigation Reform Act of 1995. The words "expect," "believe," "estimate," "intend," "plan," "anticipate," "project," "may," "should," "strategy," "future," "will," "project," "potential" and similar expressions indicate forward-looking statements. Forward-looking statements are predictions, projections and other statements about future events that are based on current expectations and assumptions which are not historical facts, and, as a result, are subject to risks and uncertainties, including the development, performance and capabilities of Arbe'sRF chipset production configuration, the development of competitive products, the performance of Arbe's chipset in trials, Arbe's ability to produce and deliver products that meet the quality and delivery requirements of customers and other factors, which are not historical facts. You should carefully consider the risk factors and uncertainties described in "Risk Factors," "Operating and Financial Review and Prospects" "Cautionary Note Regarding Forward-Looking Statements" and the additional risks described in Arbe's annual report on Form 20-F, as well as the other documents filed by Arbe with the SEC. Accordingly, you are cautioned not to place undue reliance on these forward-looking statements. Forward-looking statements relate only to the date they were made, and Arbe does not undertake any obligation to update forward-looking statements to reflect events or circumstances after the date they were made except as required by law or applicable regulation.

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