PRESS RELEASE

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FOR IMMEDIATE RELEASE

New Vision Display acquires ZBD LCD technology and Malvern, UK facility

ROSEVILLE, CA – March 11, 2020 – New Vision Display (also known as NVD) is pleased to announce its recent acquisition of ZBD bistable display technology, effective September 20th, 2019. The purchase included ZBD intellectual property, know-how, an R&D facility, and a number of employees. The facility located in Malvern, UK offers additional customer service, initial failure analysis, meeting room/facilities, research and prototyping operations, and a cleanroom laboratory.

Bistable displays have been in existence for decades (e.g. e-paper and cholesteric LCDs), but until recently have been impractical for many applications due to several technology-based weaknesses. ZBD LCDs are a type of bistable display which is based on conventional passive matrix LCD technology. Invented in the 1990s and historically employed in electronic shelf labels, the demand for ZBD displays is growing in applications where e-paper or cholesteric LCDs can only function to a limited extent: Outdoor signage, parking meters, ticket/vending machines, smart watches, key fobs, and more. ZBDs are an ideal solution for battery-operated devices, outdoor environments, and bright lighting conditions.

ZBD displays offer many key advantages over other types of bistable displays. First, ZBD displays can utilize common passive matrix LCD controller ICs, which are inexpensive, easy to

drive, and available on a long-term basis. Second, ZBD LCD development and NRE costs are comparable to that of STN displays, making it possible to provide customer-specific formats and resolutions at much lower tooling costs and MOQs than is possible with TFT LCDs. In fact, ZBD display structure only differs from standard STN-type displays by one modified internal surface (an ideal complement to NVD's existing passive LCD production lines). Third, ZBD displays do not suffer the multiplex limitations of STN displays. With ZBDs, there are no limits to how many lines can be addressed. Furthermore, very high resolutions are possible without loss of contrast or viewing angle. Currently, ZBD displays of up to 14" sizes are being produced with 200dpi, which is comparable to high-resolution TFTs. Fourth, the ZBD technology requires no power to maintain the image on the display after the switching process, making them extremely low power.

Other key ZBD display features include paper-like reflectivity, wide viewing angles, sunlight readability, wide storage/operating temperatures and long-term stability at a low cost. Images can be switched perfectly at up to 85°C and remain artefact free at >100°C. The display image can be switched down to -10°C, and can maintain the image in as low as -40°C. Furthermore, NVD can customize them with color-printed areas behind the images, and/or laminate them with decorative or protective cover lenses. Because the technology is purely reflective, it must be illuminated from the front using either ambient light or a front light-guide, which is a factory fit option provided by NVD.

About New Vision Display

New Vision Display (also known as NVD) is a publicly traded company with global headquarters in Shenzhen, China. NVD is a leading supplier of custom displays, touch panels, cover lenses, and integrated assemblies for OEMs worldwide. NVD offers a total solution approach, with a thorough understanding of the product development, life cycle, and end-

user/environmental requirements. NVD operates high-end manufacturing and design facilities located in China and Malaysia, dedicated to display, touch and glass technologies. Sales and technical support teams are located across the US, Europe and Asia. For more information, please visit www.newvisiondisplay.com.