

Phase One Unveils 100MP Medium-format Metric Aerial Cameras



Phase One Industrial has announced two 100MP CMOS-based medium-format metric cameras for aerial mapping and other demanding applications. According to the company, the development of the Phase One iXU 1000 and the iXU-R 1000 camera systems marks a shift towards higher value for the aerial data acquisition market.

According to the company, these systems, which are available in either RGB or near infrared (NIR) variants, are distinguished from all other existing medium-format aerial camera systems by their combination of higher image resolution, wider ISO range and faster capture speeds (as fast as 0.85 second per frame), offering large-format advantages.

Efficiency

At 100 megapixels, the cameras deliver 11,608 pixels of cross-track coverage. Flying with an iXU-R 1000 or iXU 1000 enables users either more coverage during a flight while maintaining the same ground sample distance (GSD), or a lower GSD while flying at the same height. Their CMOS sensor design also enables image captures in lower light with an ISO range from 50 to 6,400 as well as more flights under the clouds in low light and/or later in the day. More coverage and more flying hours result in a cost-effective, overall gain in flight efficiency and lower operational costs per job.

In addition to more coverage and more flying hours, the cameras offer faster capture rates permitting more overlap for greater accuracy in producing point clouds and generating 3D presentations from nadir images. With a top shutter speed of 1/1600s and higher possible ISOs, the cameras can capture sharp images when flying at high altitudes with a fast flight speed or lower altitudes with low GSDs.

The iXU-R's high performance Rodenstock lenses (40mm, 50mm and 70mm) are each calibrated for infinity focus and tested to ensure edge-to-edge sharpness across the sensor. The iXU's Schneider Kreuznach lens options include a wide range of focal lengths, including 55mm, 80mm, 110mm, 150mm and 240mm.

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