

*Highly accurate, wireless scan target with integrated, swiveling on-board readout for single or dual-axis alignment*

## The A-1519-2.4XBE-RO / A-1520-2.4XBE-RO Integrated Wireless Targets with Readout Display

### Target features include:

- ✦ The A-1519-2.4XBE-RO and A-1520-2.4XBE-RO Targets are high-resolution, high-accuracy wireless targets with a rotating readout mounted directly on the target body. The on-board readout swivels for easy viewing from any angle, eliminating the need for a separate display unit. The “Z” variant features a zero button that zeros both the internal value, for transmission to our software, and the on-board display. The targets operate in either single or dual-axis modes for use with most of Hamar’s scanning or straight-beam lasers.
- ✦ In single-axis scanning mode, the targets are used with Hamar Laser’s continuously sweeping lasers (L-730/L-740 series) for measuring the flatness, straightness, squareness and parallelism of both machine tool linear and rotary axes, platens and rolls.
- ✦ In dual-axis mode, the targets are used with our straight-beam lasers, such as the L-702SP/L-703S/L-705/706/708 for gas steam turbine applications.
- ✦ The A-1519-2.4XBE-RO Target provides a measuring range of  $\pm .55$  in. ( $\pm 14$  mm) and the A-1520-2.4XBE-RO has a range of  $\pm .10$  in. ( $\pm 2.5$  mm). Both targets feature an electronic “zero” function and an operating range of 100 ft. (30.5 m) from laser to target with a resolution up to  $.00001$  in. (0.0025 mm).
- ✦ Super-linear, fully linearized position-sensitive detectors (PSDs) with automatic background-light correction for extremely accurate readings.
- ✦ Easily converts to a height gage as the center of the target has been set to a tightly-controlled dimension. Attach precision spacer to the base of the target and the exact dimension from laser plane to the measured surface can be obtained. Optional precision spacers (1 in., 2 in., 3 in., and 6 in.) accurate to  $.0003$  in. (0.0075 mm) are available.
- ✦ Package includes target, swiveling readout, magnetic base, and three insert posts (6.25 in., 4 in., and 2 in.) for coarse height adjustment.
- ✦ Automatic on/off operation. The targets activate when the laser beam sweeps across the sensor or the zero button is pressed. Flashing target indicators provide immediate “off target” status.
- ✦ Powered by two internal lithium-ion batteries. Comes with AC adapter/charger, low battery and charging indicators. Optional A-1519CS-4 Charging Station charges up to 4 targets simultaneously.
- ✦ Data transmitted wirelessly using XBee® radios with range of up to 133 ft. (40 m).



*The A-1519-2.4XBE-RO/A-1520-2.4XBE-RO Wireless Targets*

### Integrated Readout features:

- ✦ Single-axis readout features a swiveling mount for optimal viewing angle.
- ✦ User-selectable display in inches or millimeters.
- ✦ Readings in either Relative (Zero) or Absolute mode.
- ✦ Bright numeric LED display with 4-decimal-place resolution ( $.0000$  in. or  $0.000$  mm) for easy viewing of target readings.
- ✦ Powered directly by the target.
- ✦ Small, lightweight aluminum housing.
- ✦ “Z” variant features a zero button that zeroes the internal value, for transmission to our software, and the on-board display.



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# Specifications

## A-1519-2.4XBE-RO and A-1520-2.4XBE-RO Wireless Targets

|                          |                                                                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Size:                    | 2.25 W x 6.11 H x 2.15 D in. (57.2 x 155.1 x 54.6 mm)                                                                                    |
| Weight:                  | 16.1 oz. (0.45 kg)                                                                                                                       |
| Target Angle Acceptance: | ±10°                                                                                                                                     |
| Power Supply:            | 7.5–12 VDC, 500 mA                                                                                                                       |
| Battery Life:            | 8.5 hours continuous duty with display on low brightness                                                                                 |
| Operating Temperature:   | 35° F to 140° F (2° C to 60° C)                                                                                                          |
| Detector Size / Type:    | 2-Axis PSD 1.3 x 0.51 in. (33 x 13 mm)                                                                                                   |
| Operating Range:         | 100 ft. (30.5 m) from laser to target                                                                                                    |
| Auto On/Off Power:       | Target activates when laser beam sweeps across sensor; turns off when laser stops sweeping                                               |
| "Z" Variant:             | Features a zero button that resets the target and zeroes the internal value, for transmission to our software, and the on-board display. |
| Magnetic Base Size:      | 2.00 W x 2.53 H x 3.55 D in. (50.8 x 64.2 x 105.2 mm) w/o T-screw                                                                        |
| Magnetic Base Weight:    | 2.78 lb. (1.26 kg)                                                                                                                       |

### PSD Sensors

| Model Number | Sensor Resolution       | Linearized Accuracy      | Measuring Range     |
|--------------|-------------------------|--------------------------|---------------------|
| A-1519       | .00002 in. (0.0005 mm)  | ±.00015 in. (±0.0038 mm) | ± .55 in. (± 14 mm) |
| A-1520       | .00001 in. (0.00025 mm) | ±.00006 in. (±0.0015 mm) | ± .1 in. (±2.5 mm)  |

### Radio Specifications

|                  |                                                                                                                                                                                  |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Indoor Range:    | 133 ft. (40 m)                                                                                                                                                                   |
| Transmit Power:  | +8 dBm (6.3 mW)                                                                                                                                                                  |
| Radio Frequency: | 2.4 GHz, DSSS (Direct Sequence Spread Spectrum)                                                                                                                                  |
| Certification:   | FCC ID: MCQ-XBEE3 (Part 15)   CE: ETSI (Europe)   IC ID: 1846A-XBEE3 (Canada)   RCM/R-NZ (Australia/New Zealand)   ANATEL 06329-18-01209 (Brazil)   TELEC [R] 210-119309 (Japan) |

### Integrated Rotating Readout

|                      |                                                                                   |
|----------------------|-----------------------------------------------------------------------------------|
| Power Supply:        | Supplied by target                                                                |
| Housing Material:    | Aluminum and plastic                                                              |
| Physical Dimensions: | 2.25 W x 1.53 H x 2.15 D in. (57.2 x 38.9 x 54.6 mm)                              |
| Display Resolution:  | .1, .01, .001, .0001 in.   .1, .01, .001 mm                                       |
| Functions:           | Zero (Relative Mode)   Units (in. ↔mm)   Display Resolution   ABS/REL Mode toggle |
| Mount:               | Swiveling mount on target body for adjustable viewing angle                       |

#### A-1519-2.4XBE-RO AND A-1520-2.4XBE-RO WIRELESS TARGETS WITH ATTACHED DISPLAY

