

ATS600 Technical Specifications

Measurement range

0.8 to 80 m	1.5 to 60m (direct scanning)
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General Information

Tracker size/weight	477 x 258 x 258 mm/14.2 Kg
Controller size/weight	249 x 148 x 59mm/1.65Kg
Laser class	Class 2 Laser Product in accordance with IEC 60825-1 Second Edition (2014-05)
Overview Camera	5MP/10-degree FOV
PowerLock Range	60m
ISO 17025 certified	✓
Field of View (Vertical/Horizontal)	±145°/360°

Environmental

Operating temperature	0°C to +40°C
Relative humidity	max. 95% non-condensing
Operating elevation	-700 m to +5500 m
Dust/water	IP54

Interface

Cable	Cat5e
Wireless	WLAN (IEEE 802.11n)

Power Management

Battery type	Lithium-ion battery/swappable
Typical battery runtime (single charge)	6 hours
Data output	1000 Hz
Mains	AC power supply

ATS600 Scanning Specifications

Accuracy

Range noise ³	< 80 µm
Absolute accuracy ⁴	< ±300 µm
Angular performance $E_{\text{two-face,MPE}}$ ⁵	±50 µm + 10 µm/m
Length measurement $E_{\text{distance,MPE}}$ ⁵	±150 µm

Speed

Scan rate	1000 Hz
Scan speed ⁶	

All accuracies stated as Maximum Permissible Error (MPE). Typical values half of MPE.

¹ According to ISO 10360-10 - measured at 2 m.

² Angular Performance Transverse eT according to ISO 10360-10.

³ Standard deviation (1σ) of a best-fit plane (78% albedo), distance 1.5 to 30 m, standard measurement mode, target aligned.

⁴ Maximum deviation (MPE) of the absolute position of a plane (78% Albedo), 1.5 to 30 m, 0 to ±45° incidence angle.

⁵ In accordance with ASTM E3125-17 Table 2, 3 and 4

⁶ At default point-to-point and line-to-line distance, measurement distance 10 m

ATS600 Accuracy Specifications

Angular performance (location test)

Measurement Distance	Typical	MPE
5 m	±23 μm	±45 μm
10m	±38 μm	±75 μm
20 m	±68 μm	±135 μm

Length Measurement (length test)

Measurement Distance	Typical	MPE
5 m	±40 μm	±81 μm
10m	±53 μm	±106 μm
20 m	±96 μm	±191 μm

Distance Measurement (ranging test)

Measurement Distance	Typical	MPE
1.5 to 5 m	±71 μm	±142 μm
1.5 ot 10 m	±72 μm	±143 μm
1.5 to 20 m	±76 μm	±152 μm
1.5 to 30 m	±83 μm	±165 μm
1.5 to 40 m	±92 μm	±183 μm
1.5 to 50 m	±102 μm	±203 μm