

ATEQ

We test, You fly.



AX7 Factsheet

BONDING TESTER MILLIOHMMETER

- ➔ 3 MODES FOR ANY TASKS
- ➔ LARGE RANGE FROM 1 $\mu\Omega$ TO 60 Ω
- ➔ HIGH ACCURACY 0,1% OF MEASURED VALUE
- ➔ SMART CONNECTIVITY
- ➔ PORTABILITY & 8 HOURS OF AUTONOMY



AIRCRAFT TEST INSTRUMENTS & BENCHES
GROUND SUPPORT EQUIPMENT

YouTube



ateq-aviation.com

AX7



The **AX7** is a new generation portable milliohm meter designed to replace the AX6000, while keeping the same core purpose: measuring very low resistances to verify electrical continuity and contact quality. Thanks to the high precision Kelvin 4 wire method - using two leads to inject current and two to measure voltage - it eliminates cable resistance errors and measures only the true resistance of the component, delivering highly accurate and reliable results.

➔ GENERAL DETAILS

Presentation 311 x 229 x 157mm (12.2 x 9 x 6.2 inch)
2.85Kg with battery installed
2.25Kg without battery
Protection: IP30 as per IEC 60529

Environmental conditions Indoor and outdoor use
Operating range: +0 to 50°C
@ 10 to 85% max
HR non-condensing
Storage (without battery): -40 to +70°C
@ 10 to 90% RH
Altitude < 3000m

➔ TECHNICAL SPECIFICATION

Measurement Ranges by Injection current
Summary table*

Injection current	Max Range (Ω)	Available Ranges
100 mA	60 Ω	60 Ω, 6 Ω, 600 mΩ, 60 mΩ
500 mA	12 Ω	12 Ω, 1.2 Ω, 120 mΩ, 12 mΩ
1 A	6 Ω	6 Ω, 600 mΩ, 60 mΩ, 6 mΩ
2 A	3 Ω	3 Ω, 300 mΩ, 30 mΩ, 3 mΩ
5 A	1.2 Ω	1.2 Ω, 120 mΩ, 12 mΩ, 1.2 mΩ
10 A	600 mΩ	600 mΩ, 60 mΩ, 6 mΩ, 600 μΩ

*Refer to user manual for full range list

Full range available:

- From **100 mA to 1 A** in **100 mA** increments
- From **1 A to 10 A** in **1 A** increments

Accuracy and Resolution

Selected Range	Displayed Resolution	Measure Accuracy
< 1 mΩ	0,0001 mΩ (0,1 μΩ)	(0.1 % of reading + 0.1% of the selected range)
1 mΩ à 10mΩ	0,001 mΩ (1 μΩ)	
10 mΩ à 100 mΩ	0,01 mΩ	
100 mΩ à 1000 mΩ	0,1 mΩ	
1 Ω à 10 Ω	1 mΩ	
> 10 Ω	10 mΩ	

Example of accuracy calculation:

For a **10mΩ** reading on a **15mΩ** range:

- Error = (10 mΩ x 0.1%) + (15 mΩ x 0.1%)
- Error = 0.01 mΩ + 0.015 mΩ = 0.025 mΩ

Key notes

Higher injection current = lower resistance range, enabling more precise low-resistance measurements.

Select injection current based on the expected resistance:

- High resistance -> use lower current (100-900 mA)
- Low resistance -> use higher current (1-10 A)

Typical applications: contact resistance, grounding, busbars, welds, large conductors, metalisation test, etc.

Application examples

Power cable testing: 2 A, 30 mΩ range
Ground connection test: 10 A, 600 μΩ range
Motor winding resistance: 1 A, 6 mΩ range

➔ SYSTEM CAPABILITIES

Data Management and Storage

Test Point Memory: 400 individual programmable test points for standalone measurements.

Sequence Capacity: Up to 32 programmable sequences, each containing up to 400 test points.

Total Capacity: 13200 total individual data points (32 sequence x 400 points + 400 individual test points).

Data logging: All measurements are automatically recorded.

ATEQ AVIATION EMEA
Europe, Middle East, Russia, Africa
+ Custom software/Hardware Requests
15, rue des Dames
78340 Les Clayes-sous-Bois - France
Phone: +33-1 30 80 10 20
Fax: +33-1 30 54 11 00

ATEQ AVIATION THE AMERICAS
3216 S. Nordic Rd
Arlington Heights, IL 60005
United States
Phone: +1-847-640-6242
Toll Free (USA only): 800-324-2885
Fax: 847-640-8368

ATEQ AVIATION ASIA PACIFIC
38 Jalan Pemimpin #08-06,
Singapore 577178
Phone: +65 64511456
Fax: +65 64591190

AX7



Test features

High-resolution test point definition: features 5 editable description fields per point and the ability to attach/link reference images.

Chainable sequence: Automated test execution; the sequence proceeds seamlessly as long as "PASS" results are obtained.

Advanced result filtering: Simplified management via status categories for measured points: Pass, Fail, N/A, Cancelled and To Do.

Diagnostic Mode: Quick access to "Free Measurement Mode" (Manual Mode) for immediate investigation of failed points.

Access Control: Supervisor-level locking of test parameters to prevent unauthorized modifications

PC Connectivity and software integration

Nexus software Compatibility: Full integration with ATEQ's NEXUS PC software for advanced data management.

Library Management: Create, store and edit extensive libraries of test points and sequences on your PC, exceeding internal device storage limits.

Fleet synchronization: Seamlessly deploy and upload measurement libraries and sequences to multiple devices.

Centralized Backup: Securely archive all test results and devices configuration on a PC.

AX7 SUPPORTS SEVERAL MANUFACTURING INDUSTRIES

Aerospace

Testing bonding of composite structures - ensure electrical continuity across rivets or bonding straps.
Verifying ground connections between metallic parts (fuselage, wings, landing gear).
Control of static discharge paths - confirm safe paths for lightning strike protection, metalisation test.

Railway

Checking continuity of bogie/frame connections - safety critical low resistance joints.
Verifying grounding of electrical cabinets inside trains.
Inspection of welded or bolted joints in traction systems and pantographs.

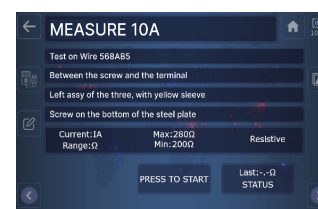
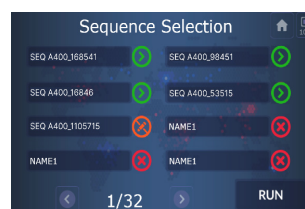
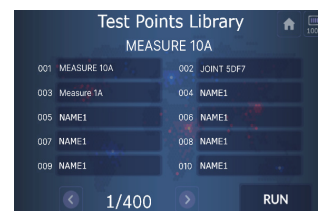
Automotive

Battery and high current cable testing (EV/Hybrid vehicles).
Contact resistance in fuse boxes or power distribution units.
Quality control of welded joints in chassis or exhaust systems (for electrical bonding).

Energy

Busbar connection testing in power distribution panels.
Verifying earthing systems in substations or wind turbines.
Inspection of bolted joints in transformers and switchgear.

AX7 INTERFACE



Thanks to a wide range of optional accessories available, for the complete list of available accessories, please refer to the separate *Equipment List* document.



We are also committed to sustainability reducing energy use, limiting waste, electrifying our fleet, and offering eco-friendly products.

| PITOT TEST | COBRA PITOT ADAPTERS, KITS & COVERS | LEAK TEST | BATTERY TEST | ELECTRICAL TEST

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Fax: +65 64591190