AMETEK SI

Materials Lab XM

Materials test system

Application-focused system for dielectric and electronic materials and materials analysis.



Impedance range	EIS frequency range	Maximum output current
1 mΩ–1 TΩ [1]	**10 µHz–1 MHz** [2]	**±100 mA** [2]

Specifications

PERFORMANCE

Current resolution	1.5 pA	[2]

MEASURING RANGE

EIS frequency range	10 µHz–1 MHz	[2]
Generator voltage range	±8 V, DC + peak AC with open-circuit load	[2]

ELECTRONICS & SIGNAL

Maximum output current	±100 mA	[2]
Auxiliary inputs	4 synchronized DC voltage channels	[2]
Minimum pulse duration	1 µs	[2]

SOFTWARE & DATA

Software	XM-Studio included	[1]

CONNECTIVITY & INTERFACE

Cell connections	2 or 4 terminals	[2]

ENVIRONMENT & RATINGS

Impedance range	1 mΩ–1 TΩ	[1]

GENERAL

Maximum data acquisition rate	1 MS/s for time domain	[2]
Floating measurement / isolation	Floating	[2]

Sources

[1] **Materials Lab XM**
AMETEK Scientific Instruments · product-page · product page · checked 2026-10-16
https://www.ameteksi.com/products/impedance-analyzer/materials-lab-xm

[2] Materials Lab XM – brochure
AMETEK Scientific Instruments · brochure · p. 8; p. 8 and p. 3 · checked 2026-10-16
https://www.ameteksi.com/-/media/ameteksi/download_links/documentations/materials-lab-xm/materials-lab-xm-us...

Every value is taken from the manufacturer’s own document; the number after the value refers to the source list. Always check against the latest datasheet before ordering.

The data comes from the manufacturer’s published documents. Manufacturers may change specifications; the current configuration and performance are confirmed in the quotation.