

## Model **AE-381A** Ultra high speed & high accuracy 1MHz/1kHz/120Hz MLCC Capacitor Checker

Optimum model for inspection on taping machine of MLCC Capacitor

### Characteristic

- Ultra high speed (Measurement time) : 0.3msec[1MHz]、1msec[1kHz]、8.34msec[120Hz]、
- It is poor contact detection of the probe at the time of 2 terminal measurement by measurement abnormality detection.
- Available to make the contact check to watch the contact condition of probe contact.
- Measurement frequency: 1MHz/1kHz/120Hz $\pm$ 0.1%(a sine wave)
- BIN function: It is available to classified to 14 ranks maximum and out of BIN the C measurement values.
- Change possibility of series equivalent circuit/parallel equivalent circuit.
- Available to measure by constant voltage for the capacitor with the voltage dependence.  
( It is not supported some range )
- Available DF & Q measurement.
- 4 $\frac{1}{2}$  figures(15000) display and available HI/GO/LO judgment by comparator
- “RS-232C” and “printer output” function (Centronics conformity) are as normal.  
( “GP-IB” is option)
- Supplies a measurement electric current by intermittent in order to reduce the abrasion of the probe contact.



**AEMIC CORPORATION,**

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## SPECIFICATIONS

## TENTATIVE

Measuring range and Accuracy (DF<0.1 Ambient temperature 23°C±5°C)

Range	Measuring Range	Resolution	Accuracy [In case of FAST, Accuracy of C and DF becomes double]			Measuring Voltage[rms]
			1MHz	1kHz	120Hz	
1. 5pF	0. 0000pF~1. 5000pF	0. 0001pF	C:Within±1. 0% of rdg±50dg	----	----	1V±5%
		DF:0. 0001	DF:Within±0. 005±0. 0001×(Cr/Cx)	----	----	0. 5V±5%
15pF	0. 000pF~15. 000pF	0. 001pF	C:Within±0. 25% of rdg±25dg	C:Within±0. 25% of rdg±25dg	----	1V±5%
		DF:0. 0001	DF:Within±0. 002±0. 0005×(Cr/Cx)	DF:Withi±0. 002±0. 00025×(Cr/Cx)	----	0. 5V±5%
150pF	0. 00pF~150. 00pF	0. 01pF	C:Within±0. 15% of rdg±10dg	C:Within±0. 15% of rdg±10dg	----	1V±5%
		DF:0. 0001	DF:Within±0. 001±0. 0001×(Cr/Cx)	DF:Within±0. 001±0. 0001×(Cr/Cx)	----	0. 5V±5%
1. 5nF	0. 0pF~1500. 0pF	0. 1pF	C:Within±0. 15% of rdg±10dg	C:Within±0. 15% of rdg±10dg	----	1V±5%
		DF:0. 0001	DF:Within±0. 001±0. 0001×(Cr/Cx)	DF:Withi±0. 0005±0. 0001×(Cr/Cx)	----	0. 5V±5%
15nF	0. 000nF~15. 000nF	0. 001nF	----	C:Within±0. 15% of rdg±10dg	----	1V±5%
		DF:0. 0001	----	DF:Withi±0. 0005±0. 0001×(Cr/Cx)	----	0. 5V±5%
150nF	0. 00nF~150. 00nF	0. 01nF	----	C:Within±0. 15% of rdg±10dg	----	1V±5%
		DF:0. 0001	----	DF:Withi±0. 0005±0. 0001×(Cr/Cx)	----	0. 5V±5%
1. 5μF	0. 0nF~1500. 0nF	0. 1nF	----	C:Within±0. 15% of rdg±10dg	C:Within±0. 15% of rdg±10dg	1V±5%
		DF:0. 0001	----	DF:Withi±0. 0005±0. 0001×(Cr/Cx)	DF:Withi±0. 0005±0. 0001×(Cr/Cx)	0. 5V±5%
15μF	0. 000μF~15. 000μF	0. 001μF	----	C:Within±0. 3% of rdg±20dg	C:Within±0. 15% of rdg±10dg	1V±5%
		DF:0. 0001	----	DF:Within±0. 001±0. 0002×(Cr/Cx)	DF:Within±0. 001±0. 0002×(Cr/Cx)	0. 5V±5%
150μF	0. 00μF~150. 00μF	0. 01μF	----	C:Within±1% of rdg±50dg	C:Within±0. 5% of rdg±25dg	1kHz : 1V/0. 5V +5%~-20%
		DF:0. 0001	----	DF:Within±0. 005±0. 0005×(Cr/Cx)	DF:Within±0. 003±0. 0005×(Cr/Cx)	120Hz : 0. 5V±5%
1. 5mF	0. 0μF~1500. 0μF	0. 1μF	----	----	C:Within±1. 5% of rdg±50dg	120Hz/0. 5V+5%~-25%
		DF:0. 0001	----	----	DF:Within±0. 01±0. 001×(Cr/Cx)	

※In case of Measuring Voltage is 0.5Vrms, Accuracy of C and DF becomes double.

Measurement Method	3 or 5 terminal measurement [Available to select the measuring method on each range]
Measuring Frequency	1MHz/1kHz/120Hz±0.1%, sine wave
Output Impedance	Approx. 2Ω
Straycapacity revision range	Approx. 20pF
temperature coefficient	Within ±100ppm/°C[f.s and zero]
Measurement time	【Free running】FAST: Approx.1~5 time/sec. SLOW: FAST×N(N: The setting number of "average" ) 【Start trigger signal】FAST: 0.3msec.[1MHz], 1msec.[1kHz], 8.34msec.[120Hz]
Measuring range	Capacitance : 0~15000 DF : 0. 0000~0. 5000 Q: 0~10000
BIN function	C:14 ranks & out of bin
Use environment	Temperature:0°C~+50°C、 Humidity: Less than 85%
Power supply	AC85V~265V、 50~60Hz、 Approx. 50VA
Outer dimension	250(W)×99(H)×300(D)mm
Weight	Approx. 3.5kg

Option	GP-IB
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※ We will change the specifications of the catalogue without notice by improvement.

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