

# HIGH FREQUENCY C & tan $\delta$ METER DAC-HFM-1



DAC-HFM-1 is a measuring instrument designed to test the dielectric constant characteristics of insulating materials. Withstand voltage of insulating materials in recent years tends to be higher, and it is getting to be not enough to make an evaluation only testing at conventional low-voltage.

In addition, testing frequency range is required from commercial frequencies to high frequency, and thus, high voltage with high frequency test becomes necessary to evaluate the insulating materials.

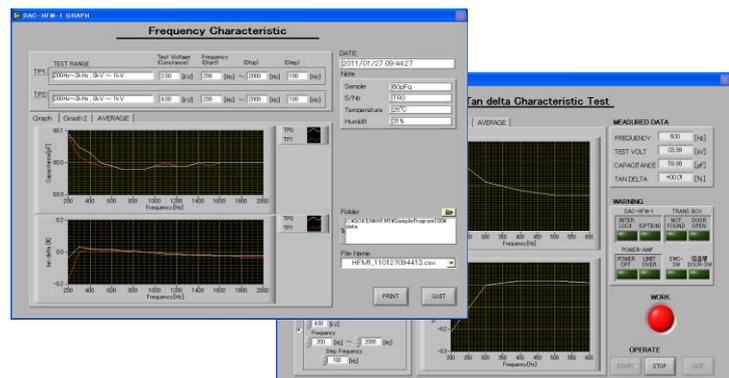
Covering a wide range of testing voltages up to 250 volts and testing frequencies range between 1 kHz and 50 kHz, DAC-HFM-1 is the optimal instrument in reliability verification test and safety research programs on insulating materials.

## Features

- Capacitance and Dissipation Power Factor Tan delta measurement
- Frequency Characteristics measurement at high voltages
- High Voltages Characteristics Measurement at high frequencies
- Automatic Measurement of Frequency Characteristics with PC
- Safety Measurement with specimen boxes.

## Test Specimen

- Ceramic
- Polymeric Material
- Capacitor
- Sheet Material
- Insulation Oil



# HIGH FREQUENCY C & tanδ METER DAC-HFM-1

## Specifications

●Measuring Range	Test Frequency(kHz)	Test Voltage(V)	Capacitance(pF)	tanδ(%)
	1 to 10	50 to 250	10 - 100	1000
●Resolution	Capacitance	0.01pF	10 - 1000	20
	tanδ	0.01%	10 - 100	100
●Accuracy	Measuring Voltage	1V	10 - 200	20
	Capacitance	±(3%rdg+2digits)		
●I/F	tanδ	±(0.1%+3%rdg+2digits)		
	Measuring Voltage	±(5%rdg+2digits)		
●Input Power	USB			
	Measuring Unit	AC100V ±10% 50/60Hz		
●Size and Weight	Testing Source Unit	AC100~240V ±10% 50/60Hz		
	Measuring Unit	W430×H200×D330(mm) approx.15kg		
	Testing Source Unit	W430×H200×D450(mm) approx.15kg		

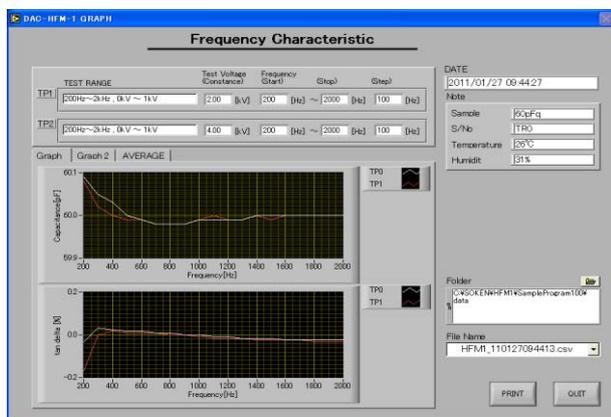
## Liquid Crystal Touch Panel

- FREQ. : Set Frequency
- T.V. : Testing Voltage
- CAP. : Measured Capacitance
- tanδ : Measured tanδ
- PRESET : Input a pre-set value  
When push ON button, testing frequency and voltage comes at the pre-set value automatically. The values can be changed by rotating ADJUST knob.
- Select FREQ. and T.V. : Select testing voltage and Frequency.



## PC Measuring Software

Measured Data Curve  
(Capacitance: tanδ – Frequency)



Data in text format

Test Point	Test Range	Frequency [Hz]	Test Volt [V]	Capacitance [pF]	Tan Delta [%]
0	0	200	1.94	60.09	-0.04
0	0	300	1.96	60.05	0.04
0	0	400	1.97	60.03	0.03
0	0	500	1.98	60.00	0.02
0	0	600	1.99	59.99	0.02
0	0	700	1.99	59.98	0.01
0	0	800	1.99	59.98	0.01
0	0	900	1.99	59.98	0.00
0	0	1000	1.99	59.99	0.00
0	0	1100	1.99	59.99	-0.01
0	0	1200	1.99	59.99	-0.01
0	0	1300	1.99	59.99	-0.02
0	0	1400	1.99	60.00	-0.02
0	0	1500	1.98	60.00	-0.02
0	0	1600	1.99	60.00	-0.03
0	0	1700	1.98	60.00	-0.03
0	0	1800	1.98	60.00	-0.03
0	0	1900	1.99	60.00	-0.03
0	0	2000	1.98	60.00	-0.03
1	0	200	3.99	60.08	-0.21
1	0	300	3.95	60.02	0.00

Specifications are subject to be changed without prior notice.

2015/03/18