

Laptop Hinge Test Machine
Model:IN-T360 (360°)

Purpose:

Hinge torsion tester is suitable for laptop, notebook, ultrabook, monitor, camera and other electronic products to do the torque test, and the torsion damping life-span test for the hinge, notebook hinge torque tester can measure the torque of the hinge for open and close at 360 degree and display the measurement graph.

Specialties:

- ◆ The testing conditions are set by computer software (the parameters include angle range, origin of stroke, testing speed, testing cycles, pause time, stop time after certain cycles etc.)
- ◆ Laptop hinge test machine can print and record the testing value and graph (graph include torque angle, torque damping).
- ◆ The title, sample name, test date, operator, and file numbers of the testing report are editable.
- ◆ The testing report is Microsoft Access data editing format, the testing data will be auto inputted, and can be recorded and printed. And it can print the testing graph in the testing interface.
- ◆ Software and report can be set the range of testing parameters so that it will automatically judge PASS or FAIL, and auto measure and display the max torque, Min. torque and average torque and create the graph.
- ◆ Automatically record the graphs for torque-angle, torque damping graph+data testing data for every cycles.
- ◆ The torque damping graph: to record every testing cycles and create a graph that can check the damping of the torque related to the testing cycles.
- ◆ To use servo motor from Panasonic to drive, with 2500r high pulse encoder to make sure the high precision, lower noise, high torque and long life.
- ◆ To use the torque transducer from Setech in Korea to measure the torque, the tolerance can be $\pm 0.5\%$ FS.
- ◆ To apply the force and equip with axis-center device for double sides that can guarantee the low vibration and high torque collection, and make sure the testing precision for hinge.

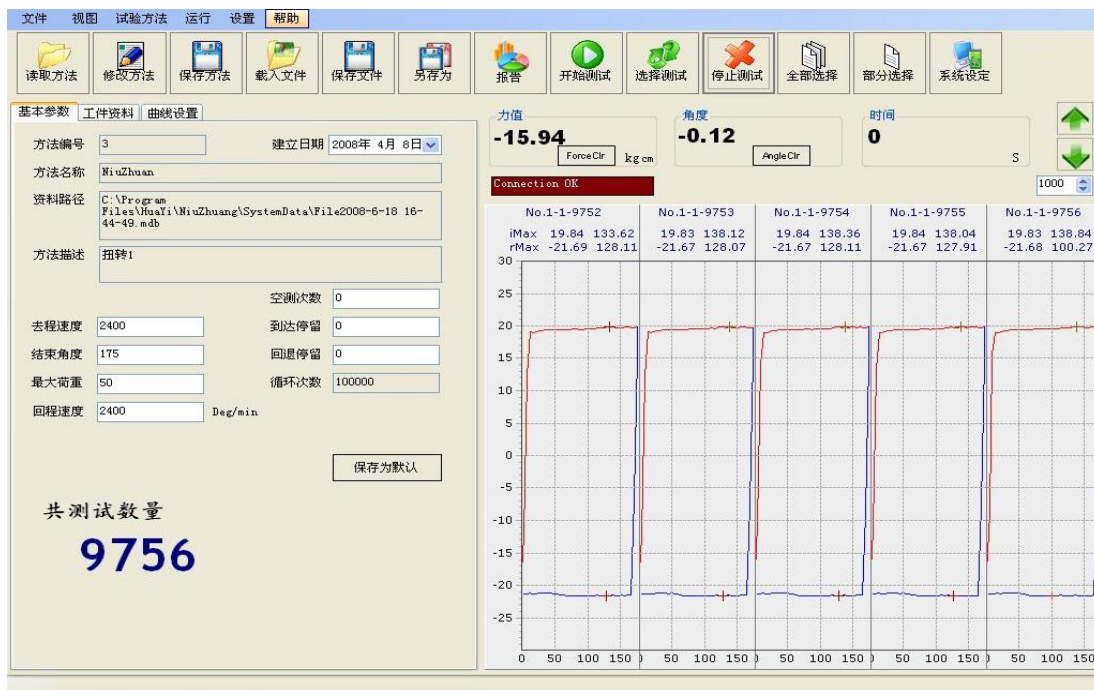
Specification:

Model	IN-T360
Testing space	Can test the laptop with 10~13.3inch screen(or specified by user)
Capacity	100kgf.cm (10N.m)
Min.display toruqe	0.01kgf.cm
Min. Display angle	0.01°
Rotation angle range	5~355° (Due to laptop has the screen and the keyboard so real angle range for hinge will not reach 0~360°)
Testing speed range	1~7200°/min, it can set the speed in constancy or can set the speed in three parts by the arc: 0~120°=1 sec, 120°~240°=2sec, 240°~360°=1sec,)
Alarm condition setting	Hinge torque loss, or the torque < setting torque, it will stop and alarm.
Tester size	W1130xD650xH1450mm
Weight	About 260kg
Power	AC220V \pm 10%, 50Hz, or specified by the user

● Appearance:

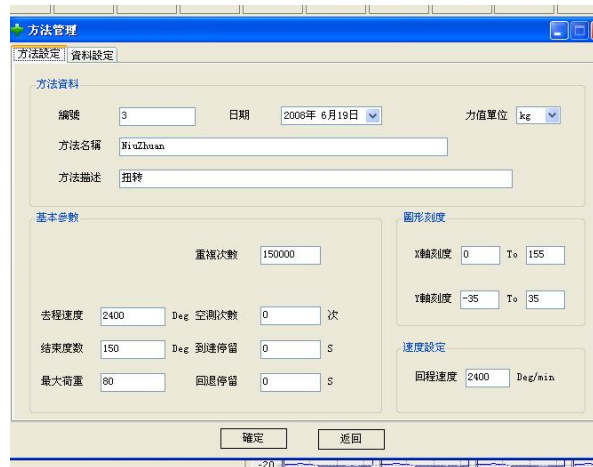


● Control software (Chinese and English):

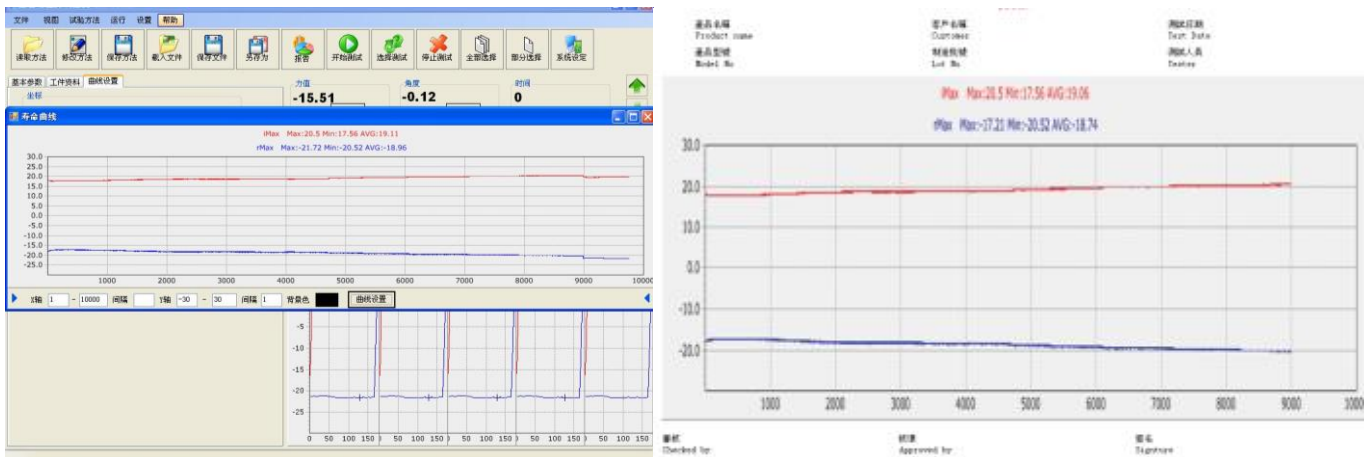


1. Operation language: Chinese, English switchable
2. Torque unit: kgf.cm、N.m、Lbf.in switchable

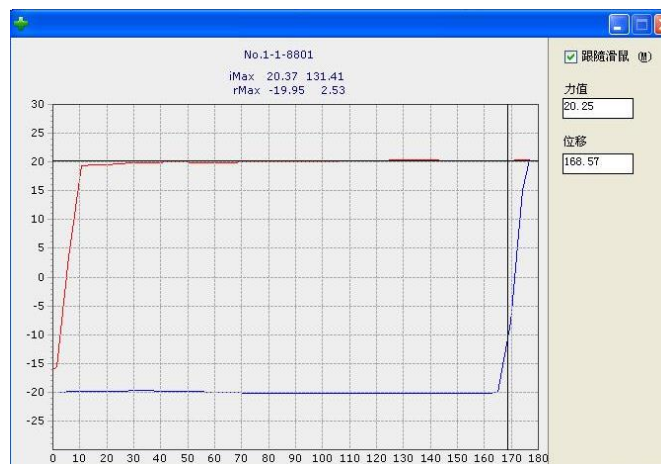
3. Hinge testing method interface: Can freely call for edit, save, or every cycles will auto save as new file No. In the testing method interface to set the rotation speed(clockwise or counterclockwise), testing speed, testing cycles, pause time and so on.



4. Life span damping graph: coordinate, color, background color for damping graph are editable.

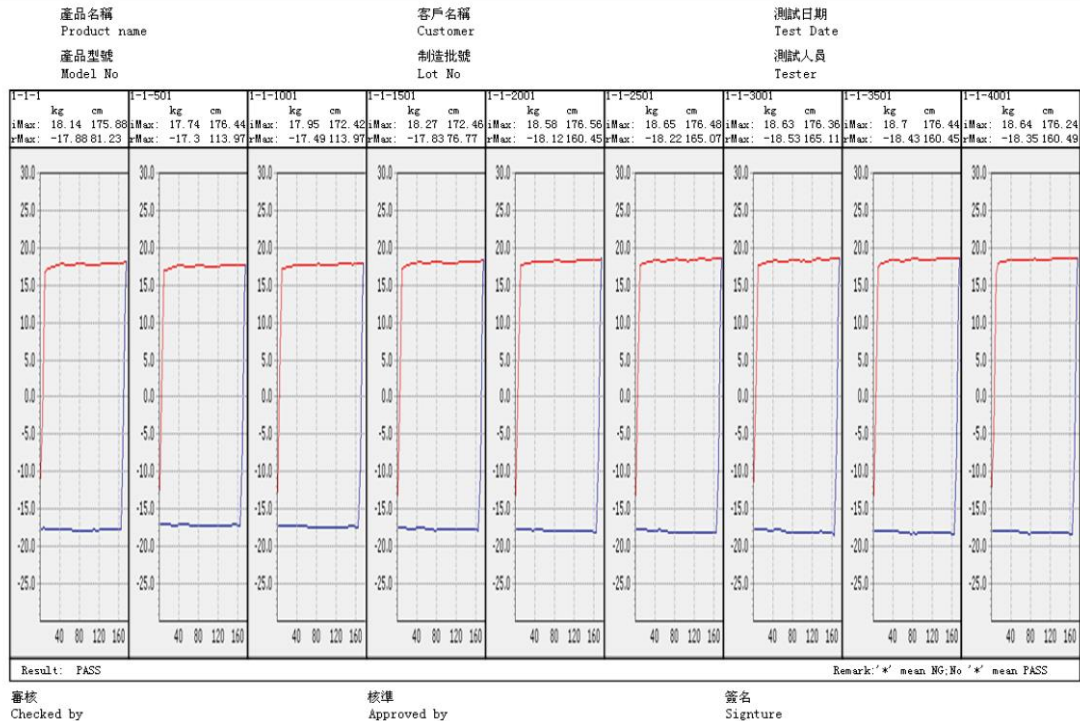


5. Curve tracking: Notebook hinge testing machine has curve cross cursor and curve tracking analysis function.



6. Testing report: the report head, font can be edited, can create to be PDF file, Excel.

Graph report



Data Report

產品名稱 Product name	NOTE-BOOK	客戶名稱 Customer	SAMSUNG	測試日期 Test Date	2008-6-20
產品型號 Model No	RTEY	製造批號 Lot No	541561	測試人員 Tester	TB

	iMax	iPos	rMax	rPos
Upper	1000	1000	1000	1000
Lower	0	0	-30	0
max	20.5	176.6	-17.21	165.71
min	17.56	124.1	-20.52	67.49
rang	2.94	52.5	3.31	98.22
avg	19.06	155.36	-18.74	139.97

	iMax	iPos	rMax	rPos
i-1-1	18.14	175.88	-17.88	81.23
i-1-501	17.74	176.44	-17.3	113.97
i-1-1001	17.95	172.42	-17.49	113.97
i-1-1501	18.27	172.46	-17.83	76.77
i-1-2001	18.58	176.56	-18.12	160.45
i-1-2501	18.85	176.48	-18.22	165.07
i-1-3001	18.63	176.36	-18.53	165.11
i-1-3501	18.7	176.44	-18.43	160.45
i-1-4001	18.64	176.24	-18.35	160.49
i-1-4501	18.76	176.52	-18.4	165.07
i-1-5001	19.01	135.06	-18.83	165.15
i-1-5501	19.3	135.14	-19.05	141.89
i-1-6001	19.53	130.76	-19.2	141.85
i-1-6501	19.69	135.22	-19.35	76.85
i-1-7001	19.92	176.6	-19.54	76.81
i-1-7501	20.09	136.79	-19.84	76.77
i-1-8001	20.19	132.73	-19.94	151.21

Result: PASS Remark: '*' mean NG; No '*' mean PASS

審核 Checked by	核準 Approved by	簽名 Signature
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The data report can create the max torque, min torque, and the average torque, and auto judge PASS or FAIL.