AMT221 Surface Roughness Tester

Features:
1. Electromechanical integration design, small size, light weight, easy to operation
2. DSP chip control and data processing, high speed, low power consumption
3. 160μm Large measurement range
4. Ra, Rz, Rq, Rt, Rc, Rp, Rv, R3z, R3y, Rz(JIS), Rs, Rsk, Rsm, Rku; Ry(JIS); Rmax, Rmr, RPc, Rk, Rpk, Rvk, Mr1, Mr2
5. 320 x 240 TFT display, digital or graphic highlight IPS display; no viewing angle
6. Automatic range switching and display
7. Real time display of sampled waveform. Display full information, intuitive and graphical displays all parameters
8. TYPE C and Mini USB dual USB interface design for charging, communication, and automatic control
9. Alarm limits that can be set for measurement results
10. Single selection or batch printing of historical records and waveforms
11. Compatible with ISO4287, DIN, ANSI, JIS multiple standards
12. 4 Profile Filter: Gauss, RC, PC-RC, DP
13. Built-in rechargeable battery and control circuit, high capacity, no memory effect
14. There are remaining charge indicator, charging hint
15. Tester has charging instructions, the operator can readily understand the level of charge
16. Can work more than 20 hours while the power is enough
17. Large capacity data storage, can store 100 item of raw data and waveforms
18. Real-time clock setting and display for easy data recording and storage
19. With automatic sleep, automatic shutdown power-saving features
20. Reliable circuit and software design of prevent the motor stuck
21. Instrument can display a variety of information tips and instructions. For example Measurement result display, the menu prompts and error messages
22. Can connected to the computer and printer
23. All parameters can be printed or print any of the parameters which set by the user
24. Optional curved surface pickup sensor, holes sensors, measurement stand, Sheath of sensor, extension rod, printer and analysis software

Specifications:

1. Measuring Range:
   1) Ra, Rq: 0.005μm ~ 16μm
   2) Rz, R3z: 0.02μm ~ 160μm
   3) Ry, Rt, Rp, Rv: 0.02μm ~ 160μm
   4) Rsk: 0 ~ 100%
   5) Rs, Rsm: 0.02 ~ 1000μm
   6) Rmr: 0 ~ 100%
2. Range:
   1) The Z axis (vertical): 160μm
   2) The X axis (horizontal): 17.5mm/ 0.69"
3. Resolution ratio, The Z axis (vertical):
   1) 0.001μm/±20μm
   2) 0.002μm/±40μm
   3) 0.004μm/±80μm
4. Parameter: Ra, Rz, Rq, Rt, Rc, Rp, Rv, R3z, R3y, Rz (JIS), Rs, Rsk, Rsm, Rmr, Rku; Ry(JIS), Rmax, Rpc, Rk, Rpk, Rvk, Mr1, Mr2
5. Standard: ISO4287, ANSI b46.1, DIN4768, JISb601
6. Graphic: Material ratio curve of the profile, P-Curve, R-Curve
7. Filter: RC, PC-RC, Gauss, D-P
8. The sampling length (lr): 0.25, 0.8, 2.5mm
9. Assessment length (ln): Ln= lr × n, n=1~5
10. Sensor:
   1) Principle: The displacement differential inductance
   2) Stylus: Natural Diamond, 90°, 5μm tip radius
   3) Force: <4mN
   4) Skid: Ruby, Longitudinal radius 40mm
   5) Traversing speed:
      a) lr=0.25: Vt=0.135mm/s
      b) lr=0.8: Vt=0.5mm/s
      c) lr=2. 5: Vt=1mm/s
      d) Return: Vt=1mm/s
11. Accuracy: ±5nm+0.1A, A: Ra of calibration test block
12. Repeatability: No more than 6%
13. Residual profile: No more than 0.010μm
14. Power supply: Built-in 3.7V battery, Charger: DC5V, 800mA /3hour
15. Working Time: More than 20 hours
16. Outline dimension: 151×66×46mm
17. Weight: About 375g

18. Working Environment: Temperature: -20C ~ 40C; Humidity: <90% RH
19. Store and Transportation Temperature: - 40°C ~ 60°C
20. Humidity: <90% RH