

KH-5102

Pi - network Automatic In-process Crystal Measurement System

**More Control on
DLD
in your process**



The *KH5102 Pi-network Automatic In-process Crystal Measurement System* is designed to be used with a final frequency adjustment system, such as Showa Shinku SC-6SA and Kolinker SC-6SA-KH.

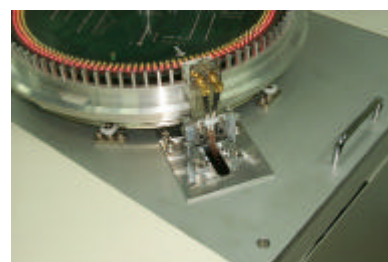
The semi-finished crystal before and after partial plating (final frequency adjustment) process are often prone to foul or break if measured by hand. With KH5102, you can test all crystals automatically right after final frequency adjustment , screen out the bad crystals so as to save welding and aging process time and minimize production loss.

The built-in *KH1120 / KH1240 Pi-network Crystal Measurement System* gives excellent absolute measurement accuracy when compared to other in-process checker. It uses the IEC444-5 and IEC444-6 international standard for crystal measurement. Testing specifications include all crystal parameters such as Fs, FL, Rs, C0, C1, L1, Q, Ts, DLD, DLD-gamma, Spurious Scan ...

Special DLD measurement algorithm to avoid waking up sleeping crystal.

With the LED indicators located by the side of each crystal, the operator can easily figure out which crystal is fail. For detail measurement data, the operator can view on the monitor screen or print the whole report to the printer.

Different types of test wheel can be used; common examples are Showa Shinku SC-6SA 49U 72 positions, Kolinker 49U lead-upward 72 positions, and 49S 72/90/144 positions test wheels.



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Specifications

- Frequency Range : KH1120 : 1 - 120 MHz
KH1240 : 1 - 240 MHz
- Fixture type : test wheel in 72 and 144 positions changeable.
- Crystal Measurement instrument : Built-in KH1120 / KH1240 Pi-network Crystal Measurement System provides absolute measurement accuracy.
- Crystal Measurement Method : High accuracy IEC444-5 and IEC444-6 pi-network crystal measurement algorithm.
- Drive Level : 10nW – 1mW into 25 ohm.
- Supported Parameters :
Fs, Fr, FL, Rs, Rr, RL, CL, C0, C1, L1, Q, Ts, C0/C1, DF1, DF2, DLD, DLD- γ , FL1, FL2,
Spurious Scan....
- Automatic spurious response measurement.
- Automatic drive level dependence (DLD) measurement.
- Microsoft Windows® operation allows high quality graph and report printout.
- High speed PASS/FAIL measurements.
- All parameter limits are individually programmable by operator.
- User friendly system operation including menu driven, mouse operation and easy system calibration.
- Flexible data storage and printing features.
- Optional multi-language software for using in different countries (Chinese, English, and more ...).
- Repeatability : Fs $\leq \pm$ Time base error ± 1 ppm.
FL $\leq \pm$ Time base error ± 1 ppm $\pm (0.2\text{pF} \times \text{Ts of crystal})$.
Rs $\leq \pm 8\% \pm 1\Omega$.
- Time Base error : exfactory calibration ≤ 1 ppm.
aging for 1st year ≤ 2 ppm.
aging for 2nd year and thereafter ≤ 1 ppm.
- Calibration Method : With standard resistor (provided with machine).
- HP™ Vectra or LEGEND Computer (or compatible) with 3.5" floppy, hard disk, Color XGA Monitor, keyboard
- Optional printer with Windows® driver.

*Specifications are subject to change without prior notice.
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