

KC1300H

180MHz / 300MHz Pi-network Upgrade Package for SC-6SA

KC1300H is an add-on upgrade controller for the Showa Shinku vacuum system SC-6SA. This upgrade gives you the performance of latest technology while maintaining the reliability. The modification on your SC-6SA is minimal.

The KC1300H utilizes the latest Proportional-Integral-Differential (PID) plating control algorithm enhanced with shutter forecasting control. Intelligent solid-state plating power control module gives better plating accuracy and higher speed compared to the other conventional shutter-only or PID-only control system. Typical plate time per crystal is less than 4 seconds (totally 2 plating cycles), with typical frequency spread of less than ± 1 ppm * ^{Note}.

The built-in high quality HP[®] E5100A Pi-network Crystal Measurement System provides the final accuracy of the crystal being plated. Measurement accuracy of less than ± 1 ppm could be achieved (Fs or Fr). And for full frequency range, both Fs and FL can be plated with high accuracy. Post plating measurement can be used for checking all parameters.

The system operation software is user friendly and menu driven. The front panel is designed for production workers to operate easily, so that they do not need to work with the computer.



Specifications

- Frequency range : 100KHz to 180MHz (or optional 300 MHz)
- Plating control algorithm : Real time digital PID control, with shutter forecast
- Filament control : Computer controlled real time high speed solid-state SSR
- Measurement : Hewlett Packard E5100A 180MHz network analyser, or optional E5100A 300MHz network analyser

System Configuration

- Solid state filament controller – Power Module
- Panel controller for easy operation
- System operation software, cables, and SMA type vacuum feedthrough
- Kolinker timer card (ISA bus)
- Hewlett Packard E5100A network analyser (100KHz to 180MHz, or optional 300MHz)
- Pi-network test fixture
- National Instruments[®] GPIB interface card (ISA bus)
- Optional HP[®] Vectra computer (or compatible) with 3.5" floppy, hard disk, and color monitor

System Requirement

IBM[®] PC compatible computer supplied by user :

- Optimum with 300MHz Pentium[®], 3.5" floppy, 32M RAM, 500MB free space on hard disk, minimum two ISA slot (for timer card and GPIB card) available, 1024 x 768 color display adaptor and monitor.

Note : Measurements were taken immediately after a crystal was plated inside the vacuum system. The measurement data show the actual plating accuracy of the system without influencing by crystal stabilities (e.g. temperature characteristics, effect on crystal under normal atmosphere, etc.).



Kolinker Industrial Equipments Limited

Unit H-1, 22/F, Shield Industrial Centre, 84 - 92 Chai Wan Kok Street, Tsuen Wan, New Territories, Hong Kong.
FAX : (852) 2498 5908 Phone : (852) 2412 0121 E-Mail : Kolinker@Kolinker.com