



MODEL 58606

KEY FEATURES

- Burn-in, reliability and life test
- Dark Current and Breakdown Voltage
- 256 channels Bi-polar device source per drawer
- High bias source to 80 volts
- Spike free source for device protection
- Programmable output for each source
- Independent sub drawer start/stop control
- Per carrier temperature control
- High Precision probing for die level burn-in

PHOTODIODE BURN-IN AND RELIABILITY TEST SYSTEM MODEL 58606

The Chroma 58606 PD/APD Burn-in system is a high density, multifunction, and temperature controlled module based system for photo diode burn-in and lifetime test. Each module has up to 256 Source Measurement Unit channels which can source current and measure voltage in various scenarios such as one described below. The system can accommodate 7 modules for a total of 1,792 device channels.

Auto Current Control Mode (ACC)

In Auto Current Control mode, the control circuit will provide the preset current to each photo diode with high stability. Even with fluctuations in device resistance and temperature, the current will be kept constant over the burn-in or test period. The device voltage will be measured by SMU and recorded as a quality reference parameter.

Temperature Control

A proprietary designed heat plate will control the PD/APD device temperature with high accuracy, excellent stability, and good uniformity. This thermal condition approach is much more compact, easier to operate, offers better performance, and energy saving over chamber based systems. Customers gain the benefit of a small footprint, versatile usage, and easy maintenance.

High Precision Probing

The 58606 system offers accurate device probing for small pads down to 70um ensuring electrical contact with avalanche photo diodes and similar devices. The carrier and device interface board (DIB) pair are customized for each photo diode layout

ensuring proper contact alignment for high precision probing.

Independent Module Operation

Customers can set each module independently (up to 28 modules in a full system) to a set test program varying from all other modules in the system. Variation includes all parameters including temperatures, Control Modes (ACC), start times and test durations. Modules can also accept carriers for a variation of CoS and packages to allow for multiple device types in one system. This provides the highest flexibility in operation.

Protection and Individual Channel Shutdown

The control circuit is specially designed for protecting each PD/APD. No in-rush current or voltage will occur to damage the devices. High/ Low limits of current and voltage can be set to perform shutdown protection. When abnormality happens, only the particular channel will be shut down while others are running normally. Ensuring device safety, ESD protection is also sustained in the system design.

Auto Data Recovery after Communication Interruption

The burn-in data is stored in the system PC and optionally in remote servers. If the communication between the module and PC is temporarily disconnected, the data will be buffered in the module 6 hours or more. After the communication is restored, the buffered data will be dumped to the PC/server without loss.

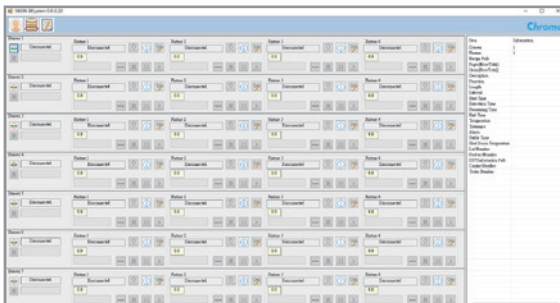


Chroma

SPECIFICATIONS

| | | | | |
|--|--|----------|---------|----------|
| Model | 58606 | | | |
| Channels | 256 channels per drawer 64 channels per sub-drawer | | | |
| Burn-In Time | 5,000 hrs and above | | | |
| Temperature | | | | |
| Operating Mode | Room Temperature (20°C~30°C) | | | |
| Thermal Chuck Operating Temperature | 40°C~180 °C | | | |
| Temperature Stability | ± 1°C for set point | | | |
| Setting/Measurement Resolution | 0.1 °C | | | |
| Over Shoot | < 5°C | | | |
| Rising Time | Less than 60 mins from 25°C to 180°C | | | |
| Cooling Time | Less than 40 mins from 180°C to 45°C | | | |
| Probing Pitch | | | | |
| Pad Pitch | ≥ 120 um | | | |
| Pad Size | ≥ 70 um | | | |
| Contact Rate | > 97% | | | |
| SMU Specifications | | | | |
| Voltage Force | ± 80V | | | |
| Voltage Measurement | ± 80V | | | |
| Voltage Resolution | 10mV | | | |
| Voltage Accuracy | ± 0.5V | | | |
| Current Force | Range 1 | ± 2uA | Range 2 | ± 2mA |
| Current Measurement | Range 1 | ± 2uA | Range 2 | ± 2mA |
| Current Resolution | Range 1 | 0.1nA | Range 2 | 0.1uA |
| Current Accuracy | Range 1 | ± 0.02uA | Range 2 | ± 0.02mA |
| System | | | | |
| Dimensions | 1,341 mm x 773 mm x 2,094 mm | | | |
| Configuration | 7 drawers per rack 4 carriers per drawer 28 independent test modes | | | |
| Test Function | ACC ; Breakdown Voltage ; Dark Current | | | |
| Burn-in Record Time | 1hr to > 5000hrs | | | |
| Power Requirement | | | | |
| Power Supply | 200V~240V, 3~/4W Delta | | | |
| Max. Power Consumption | Max. 11 kW with full capacity | | | |
| Accessories | | | | |
| IPC x1 (Windows 10), monitor x1, mouse x1, keyboard x1 | | | | |

* All specifications are subject to change without notice.



Control Panel

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Search Keyword

58606

ORDERING INFORMATION

58606 : Photodiode Burn-in and Reliability Test System

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