

NEW

NATS[®]-8100 系列

功率半导体器件动态可靠性测试系统

车载大电流测试要求对应
AQG324 测试规格 碳化硅场效应晶体管 对应机型

高温反向偏压
DHTRB

高温栅极偏压
DHTGB

NATS[®]-8151・8152
Dynamic HTRB HTGB Tester



- ✓ 参数可灵活调整：高dV/dt、宽频率范围
- ✓ 配备完善保护功能 安全可靠
- ✓ 隔热结构减轻测试仪损耗
- ✓ 支持交直流测试
- ✓ 多条件多设备同步测试

高温高湿反向偏压
Dyn H³TRB

NATS[®]-8153
Dynamic H³TRB Tester



- ✓ 控制软件：支持多层独立运行、同步执行，最小动作单位可设置为单层
- ✓ 安全保护：在运行状态下，通过报警触发电源切断机制
- ✓ 故障隔离：单个被测设备失效时，不影响其他设备运行

连续输出特性检查
Continuous Power
Characterize

NATS[®]-8140
Continuous Power
Characterizer



- ✓ 高速保护动作 <2微秒
- ✓ 主回路电感Ls低于10纳亨
- ✓ 采用高速、高频、高可靠性驱动，CMTI最高达100千伏/微秒
- ✓ 输出相电流800安培有效值，频率可达1000赫兹

✓ 随着车规级器件采用高性能SiC的趋势，越来越多的半导体制造商开始执行AQG-324标准中新增的针对SiC功率模块的测试，因此实际应用案例显著增加。

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NEW

NATS[®]-8100 series

Dynamic Reliability Test System for
Power Semiconductor Devices

Meet the requirements of automotive-grade testing
AQG324 test standard for Silicon Carbide FETs

DHTRB

DHTGB

NATS[®]-8151 • 8152
Dynamic HTRB HTGB Tester



- ✓ **Flexible and adjustable parameters:** high dV/dt, wide freq. range.
- ✓ **Safe & reliable with full protection function**
- ✓ **Heat isolation reduces the component aging**
- ✓ **Compatible with AC and DC tests.**
- ✓ **Multiple conditions & multiple devices are carried out in parallel.**

H³TRB

NATS[®]-8153
Dynamic H3TRB Tester



- ✓ **Control SW:** The minimum operable unit is 1 layer. Each layer can be set up independently and run in parallel.
- ✓ **Safety protection:** Under operating conditions, the host will shut down the power supply on alarm trigger.
- ✓ **Fault isolation:** Fails of any DUT will not affect the operation of other DUT.

Continuous Power
Characterize

NATS[®]-8140
Continuous Power
Characterizer



- ✓ **High-speed protection circuit** <2us
- ✓ **Main circuit Ls as low as** 10nH
- ✓ **Adopted High-speed, high-frequency, high-reliability drive, CMTI up to** 100kV/μs
- ✓ **Output phase current** 800Arms
frequency reaches 1000Hz

✓ Due to the trend of adopting high-performance SiC in vehicles, an increasing number of semiconductor manufacturers are requesting newly added AQG-324 power module testing for SiC, which has resulted in a large number of adoption results.

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