

AARTS Characterization Smart-Fixture

The Accel-RF Smart-Fixture is a standalone solution for bench-top RF and Thermal Performance Characterization. Allows for easy measurement of critical performance metrics used for High Temperature RF Bias (HTRB) testing, performance degradation studies, or for parameter variation analysis.

Speed Time to Market!

Smart-Fixture Features:

- **USB** Controlled •
- Comes with Optional Wide Bandwidth Bias Tees
- Embedded Heater with Heater Controller •
- Integrated Analog/Digital Control Board
- RF and DC Pulsing and Control •
- Innovative DUT Clamping Mechanism •
- USB and Control Software Included

Allows for Easy Characterization...

- **RF** Gain and PAE at Controlled Temperature
- Gain Compression and Stress Condition • Characterization
- Precise Channel-Temperature Measurement with External Scope
- **RF** Parameter Variation Analysis
- · Accommodates Many Different Package and **Carrier** Types
- Screw-in and Clamp Down Connections No • Soldering or Welding Required

Fixture can be Stand-Alone or Attached to your AARTS System

- Compatible with turnkey AARTS Reliability **Test Systems**
- Utilizes AARTS LIFETEST Software for GUI & Data Presentation





Accel-RF 858-278-2074 www.accelrf.com

Specifications		Physical Characteristics
Control	USB 2.0 or higher Lifetest™ Lite Software Type B USB Connector	Size 2.5"h x 5"l x 5.75"w Weight 10 pounds typical
DC Power	External Supply - Fixture handles up to 400W. 3 DC Bias Connections.	Power 110V - 240V AC Input for embedded heater
RF Power	External Supply - Fixture provides excellent return loss up to 18 GHz. Up to 125W RF CW Output Power.	Environmental Requirements Standard laboratory
Thermal	Control temperature up to 250°C +/- 2°C. Settable in 0.5°C increments.	
Pulsing		Application Software
Pulse Width	10us to 1ms, measured at the 50% points	Lifetest™ Lite Software Included embedded heater control and pulser board control
Pulse Period	30us to 1ms, measured at the 50% points	
Duty Factor	10% to 90%	S21 log MAG 2 dB/ REF 0 dB 41-2.119 dB
Bias1/ Bias2 Rise/Fall Time (10% to 90% points)	<1us**	
Bias(1/2) Crosstalk	<1% transient crosstalk between either bias to the other	2 - 0. 451 dB 2.0000 GHz 31.754 dB 0056 dB 0056 dB
Edge Settability	125nS - applies to all rising and falling signals; discrete steps programmable from the computer.	
	**Bias1 test condition: +50V @ 1A (50-Ohm load and <= 100pf)	→ 3 1,55429 dB
	Bias1 test condition: +25V @ 2A (12.5-Ohm load and <= 100pf)	318, 52, d8 5. 0000 cHz 521, 148 d8 5. 0000 CHz
	Bias2 test condition: +12V @ 120mA (100-Ohms load and <= 100pf)	START 0. 5000 GHz STOP 18,0000 GHz