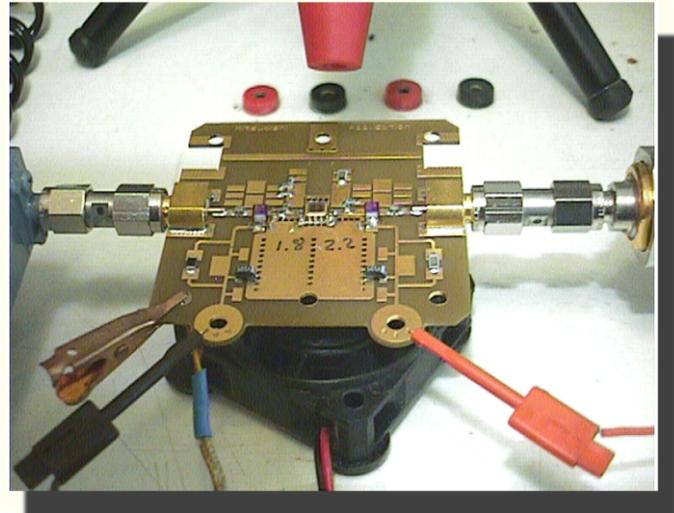


IR Probe And Novel Software Measure High Power Devices. Effect Of Microwave Tuning Can Be Seen.



Thermal case temperature measured using infra red spot probe. Chassis plate is heat sink. Class AB operation will run cooler depending on the efficiency. Baseplate temperature should be kept below 30c

IR Probe Programmed Into Diamond ENGINEERING's HPA Measurement Explorer System



Diamond Engineering Temperature Profiler

Calibrate

IDS Start: 200 Start

IDS Stop: 1000

IDS Step: 100

MGF0915A. PCB Mount. .03" .02" Dia Vias spaced .01"
Temperature vs DC Current. VDS=10v NO RF
For high currents set using RF self bias the case temperature can drop by as much as 50% depending on how well it is tuned.
Chassis is .062" Alum. A 7 CIM cooling fan is used.
See application note for mounting notes.

TC vs IR

TC Ref Temp. Deg c: 10 History

Case Temperature / Baseplate Temperature - NO RF

CaseTemp: 65.49

BasePlate Temperature: 32.78

DEG c

CaseTemp

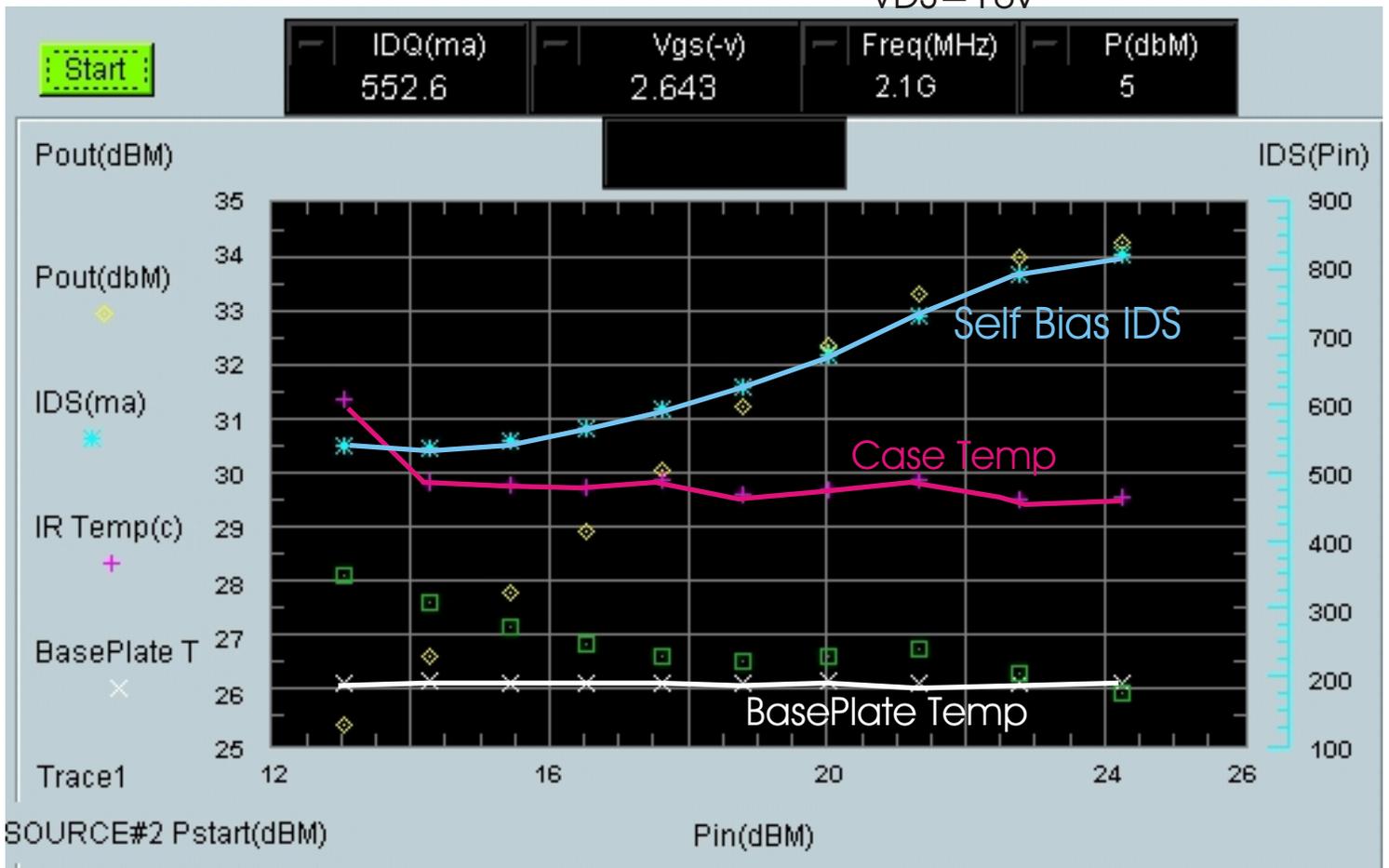
BasePlate T

IDS (ma)

The Case temperature profile vs DC current when self bias is predominate. Note the dramatic difference in case temperature at 800ma (45c) compared to the previous DC bias current temperature (57c)

Left Scale RF Pin (dBm)

Right Scale is Temp x 10
IDS (ma)
VDS= 10v



Diamond Engineering's HP-Vee Based Measurement Explorer is Used TO Create Data For Diamond Engineerings' MeasurementExplorer