

TEGA Landed Checkout I

Objectives:

This procedure checks all TAs to look for shorts. It does not use the EGA.

Block Name: tega_mini_checkout.vml

Version #: R1

Configuration: Landed Operations: Surface Phase Characterization

Assumptions: TEGA can not be turned on below -50C

Gas(es) used: None

Filaments used: None

SW Version (386): V513

SW Version (EGA): V321

Sweep and hop mode version(s): NA

Super modes and Sweep modes used: None

Sequences used: 1B (& 2B), 3B (& 4B), 1A, 32A(&33A), 34A(&35A)

- 1) Turn TEGA ON (tega_power_on)
 - a) Add preheat pause as pass in duration determined by thermal environment
 - b) Pause 30 seconds between TEGA ON and EGA ON
- 2) Change model power to Ramp1 for Cal Tank and Manifold Heater
- 3) Start Calibration Heater regulation at 20C
- 4) Start TA Manifold Heater regulation at 20C
- 5) Stop Manifold Heater regulation (~ 3 seconds has elapsed)
- 6) Turn Calibration Heater regulation OFF (~ 4 minutes have elapsed)
- 7) HEATER TEST
 - a) Plumbing 1 – ON Wait 5 secs
 - b) Plumbing 1 – OFF

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- c) Plumbing 2 – ON Wait 5 secs
 - d) Plumbing 2 – OFF
 - e) EGA Manifold – ON Wait 5 secs
 - f) EGA Manifold – OFF
 - g) EGA Plumbing – ON Wait 5 secs
 - h) EGA Plumbing – OFF
 - i) EGA Warmup – ON Wait 5 secs
 - j) EGA Warmup - OFF
 - k) Transfer Tube – ON Wait 5 secs
 - l) Transfer Tube – OFF
 - m) Wedge Heater – ON Wait 5 secs
 - n) Wedge Heater – OFF
- 8) Call tega_select_oven
- 9) Setup for TA test
- a) Turn on engineering readings for TA test
 - b) open door time to 10 sec
 - c) close oven time to 10 sec
 - d) LED min diff to -1
 - e) Poke registers to setup oven, shield, and t-heater
 - f) Change power model to Ramp2
- 10) Select Oven 0
- a) Open Door – 10 secs (This has a 30 sec timeout for GV_TEGA_TA_DONE)
 - b) Open inlet – wait 5 sec

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- c) Close inlet –
 - d) Open Outlet – wait 5 sec
 - e) Close Outlet –
 - f) Start Oven fill – Shake for 15 secs (verifies LED operational)
 - i) Will not shake/LED Diff Parameters set to prevent
 - g) Close Oven – 10 secs (This has a 30 sec timeout for GV_TEGA_TA_DONE)
 - h) Poke registers for oven, shield, t-heater (allow enough time to get a linear temperature rise)
 - i) Turn off power to oven, shield, t-heater for one minute.
- 11) Repeat 23a-23i through Oven 7, SKIP oven 4
- 12) Bypass OPEN – Wait 5 secs
- 13) ass CLOSED –
- a) Issue FPGA Register Dump
- 14) Carrier Valve OPEN – wait 3 sec
- a) Issue FPGA Register Dump
- 15) Carrier Valve CLOSE –
- a) Issue FPGA Register Dump
- 16) Calibration Valve OPEN – wait 3 secs
- a) Issue FPGA Register Dump
- 17) Calibration Valve CLOSE –
- a) Issue FPGA Register Dump
- 18) FPGA Dump to confirm valve states
- 19) TEGA OFF

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