

**Microwave Test Station
for GL139 Style Generator**

APPROVALS			REVISIONS			
	INITIALS	DATE	REV	DESCRIPTION	DATE	APPR
Drawn	JFG	01APR03	2	Misc. Updates	02MAY04	JFG
Engineering						
Manufacturing						
Marketing						

1.0 General Description

The Microwave Test Station (MTS) described in this document is designed for field use in diagnostic evaluation of microwave generators in the GL139 family of microwave equipment manufactured by ASTeX and ASTeX/Gerling Laboratories, Inc. Specific models covered include:

OEM-C12935 (used on L-3510)

OEM-C13170 (used on PEP)

The MTS enables the field service technician to perform a functional evaluation of the microwave generator to:

- a) determine if a failure has occurred, and
- b) identify the primary causes(s) of failure to assist with dispositioning the unit for repair.

Included with the MTS are the following basic components:

- 1) a dual directional power monitor with meters for measuring forward and reverse microwave power
- 2) a dummy load, for absorbing generated microwave power, with an integrated tuning stub to deliver reverse microwave power for functional verification the reflected power fold-back feature
- 3) a control module that allows complete functional control and status monitoring of the microwave generator

These components allow service technicians to operate the microwave generator under full load conditions in a safe manner according to original factory specifications. The necessary functional controls for operating the generator are provided as well as various indicators for display of operational status and diagnostic information. All electrical cables necessary for connecting the MTS to the generator are also included.

NOTE: The MTS is designed for use in failure diagnostics and basic adjustments only and is not intended for calibration purposes. Final calibration of the microwave generator should be done only after installation in the semiconductor fab tool according to instructions outlined in the user manual provided by the equipment manufacturer.

2.0 Reference Documents

Title

Document Number

Product User Manual, Microwave Test Station

930059

**Microwave Test Station
for GL139 Style Generator****3.0 General Specifications****3.1 Electrical**

Operating Frequency	2450 MHz +/- 50 MHz
Input Microwave Power	3 kW maximum (continuous)
Line Power	90-264 VAC, 50/60 Hz, 0.25 Amp
Controls	Microwave start (pushbutton switch) Microwave stop (pushbutton switch) Microwave power adjust (10-turn dial) Forward/Reverse power sense select (toggle switch) Hibernate test (toggle switch) External interlock test (toggle switch)
Indicators	Line Power (LED) System Ready (LED) Microwave Enabled (LED) RF Generator On (LED) RF Generator Full Power (LED) Microwave Power Control Input (digital panel meter) Forward/Reflected Power Sense (digital panel meter)

3.2 Mechanical

Electrical Connections	Line Power: DIN style power entry module Control I/O: 25-conductor male D-sub External Interlock: 2-position terminal block
Cooling Requirement	Water: 0.5 gpm min., 95 °F (35 °C) max. inlet temp (dew point min. inlet temp), 70 psig max. inlet pressure
Water Connections	3/8" Swagelok® tube fittings, stainless steel
Components Included	GA3207 Control Module, for GL139 style units GA1213 Dummy Load, CPR284, with Power Reflecting Stub GA3002 Dual Power Monitor, CPR284 GA2402 Waveguide Flange Adapter, WR284 Round to CPR Water Hose Assembly

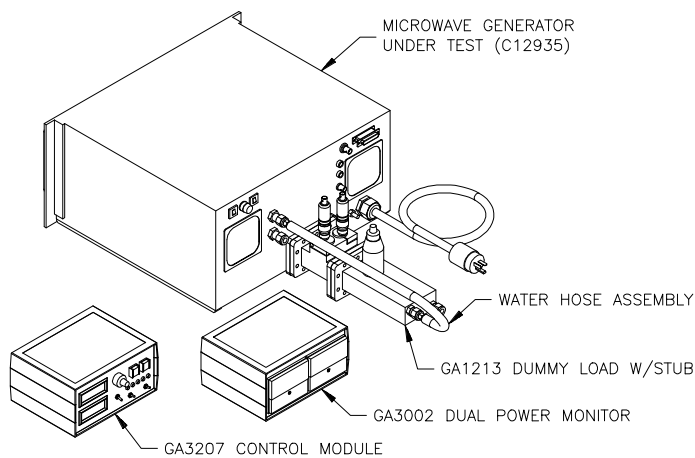
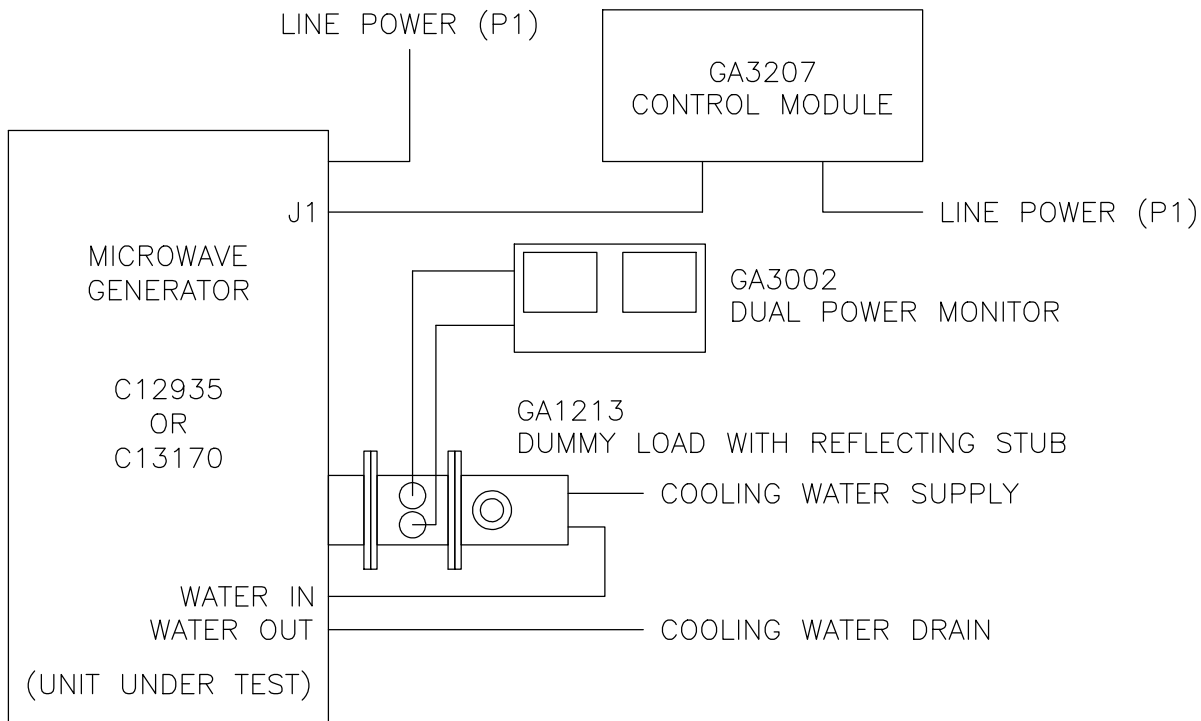
3.3 Compliance

Compliance with relevant regulations of OSHA, IEC and FCC.

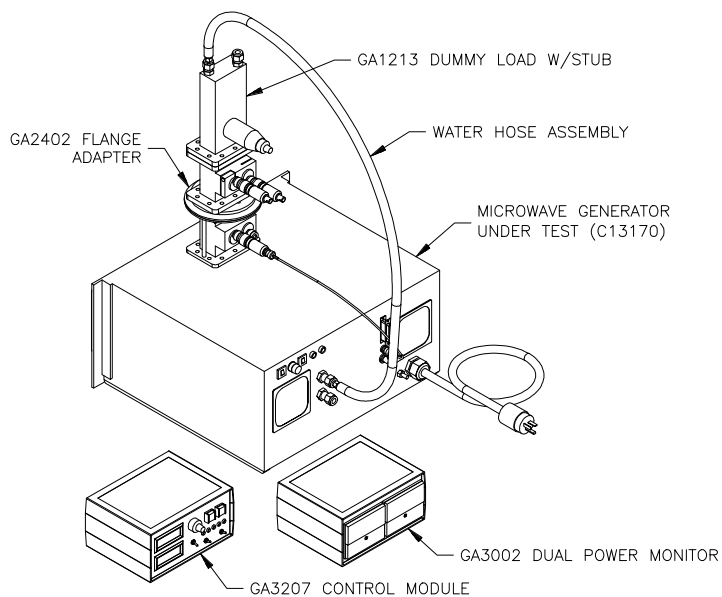
4.0 Ordering Information

<u>Description</u>	<u>Part Number</u>
Microwave Test Station, for GL139 style microwave generator	GA3206

5.0 Installation Diagram



Installation for C12935 Generator



Installation for C13170 Generator