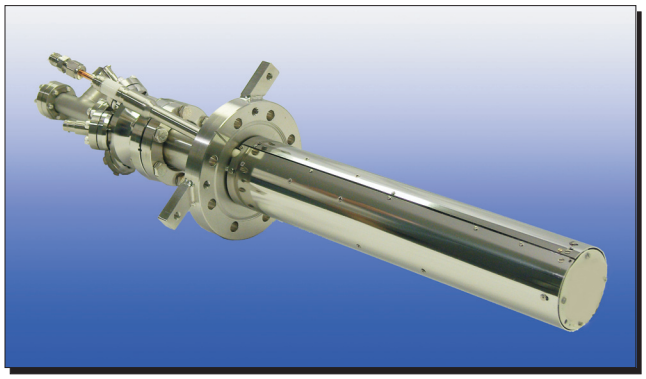
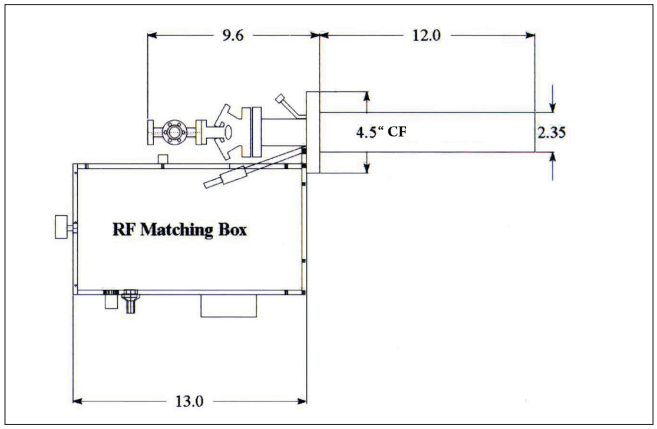
RF-4.5 Plasma Source



Description

The SVTA RF-4.5 Plasma Source is designed to dissociate diatomic nitrogen, oxygen, and hydrogen without producing high energy ions. The “zero” ion content flux allows for high quality growths as well as cleaning of substrates for thin film deposition without damaging the surface. The SVTA RF-4.53 High Growth Rate Plasma Source is able to produce high quality growth rates greater than 4 um/hr (See Application Note 1001). Custom aperture and chamber designs are available upon request to tailor the flux to individual applications. Optional equipment such as RoboRF provide automated operation and allow the user to log data as well as write recipes for

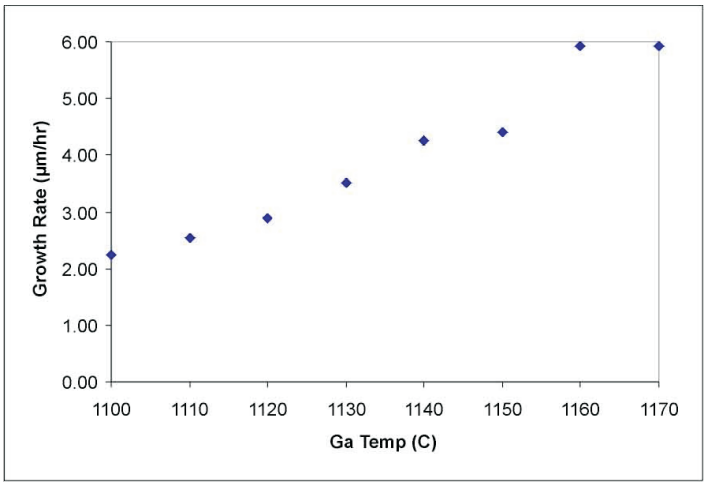


Specifications

RF Power Level.....200 - 600 Watts
Gas Flow Rate.....0.1-5 SCCM
Flange.....4.50 ”CF
Source Diameter.....2.35”
Water Cooling.....0.17 GPM Flow Rate
RF Matching Network.....Manually Tuned
Auto Tuning Optional
Plasma Chamber.....PBN, Alumina or Quartz

Features

- N_2, O_2, and H_2 Models Available
- Growth Rates Up to 4 μm/hr
- Optical Port for Plasma Monitoring
- Custom Shaped Plasma Chamber and Apertures Available
- Automatic Tuning Network Available



GaN Growth rate of the SVTA RF-4.53 Plasma Source in a SVTA III/V MBE System (See Appl. Note 1001)

Models	Description
SVTA-RF-4.5PBN	PBN, 0.11” Aperture, Specify Length: 12” - 20”
SVTA-RF-4.5ALO	Alumina, 0.11” Aperture, Specify Length: 12” - 20”
SVTA-RF-4.5Q	Quartz Plasma Chamber, 0.11” Dia. Fused Hole
SVTA-RF-4.53	High Growth Rate Model

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