

**Technical Specialist
Req No CV4204**

SUMMARY: The Atacama Large Millimeter Array (ALMA) is a project to build a 66 element radio telescope in the Atacama Desert in Chile. A technical specialist is needed in Charlottesville, Virginia to construct and help measure cryogenically-cooled waveguide transducers used in the ALMA receivers operating at 100 and 250 GHz. Primary duties include constructing waveguide transducers and measuring them using production test equipment consisting of a semi-automated vector network analyzer and associated waveguide system. Troubleshooting, repairing, and maintaining the production test system is also required. Creating and updating detailed performance documentation in paper and electronic form, writing reports, documenting operational procedures, and formatting data is also required.

QUALIFICATIONS: Duties require an introductory background in radio frequency and analog technology as provided by a two-year formal curriculum or equivalent experience. A minimum of three or more years experience in commercial or military electronics is preferred and radio frequency experience is desired. The employee must be able to communicate clearly and precisely both verbally and in writing and to become a member of a dedicated team.

Fine mechanical assembly skills, including working under a microscope, are required. The ability to work with computer spreadsheets and word processing software is required and programming skills in LabVIEW, while not required, are a plus. The ability to read and follow electrical schematics, along with experience with millimeter wave vector network analyzers, RF signal sources, waveguide systems, and cryogenics, is desired.

The candidate will be required to type on a keyboard, use a mouse, stand and sit; use hands to manipulate small objects, tools, or controls; and reach with hands or arms; also required to handle cryogenic liquids using appropriate safeguards; occasionally required to climb or balance; stoop, kneel, or crouch; must occasionally lift and/or move up to 40 pounds. Specific vision abilities include close vision, distance vision, color and depth perception, and the ability to adjust focus.

ORGANIZATION: ALMA Band 6 Cartridge Group

LOCATION: NRAO Technology Center, Charlottesville, Virginia

DURATION: This is a two-year position. ALMA front end production is expected to be complete by 2011. All funding for the construction project position will end on or before that date. Follow-on positions may be available.

Resumes with a cover letter specifying the available position of interest should be addressed to NRAO, Human Resources Office, 520 Edgemont Road, Charlottesville, VA 22903 or electronically to resumes@nrao.edu. Non-specific resumes/applications will not be considered. NRAO is an Equal Opportunity Employer - women and minority candidates are encouraged to apply.. Please include an updated resume or curriculum vitae. Women and minorities are encouraged to apply.