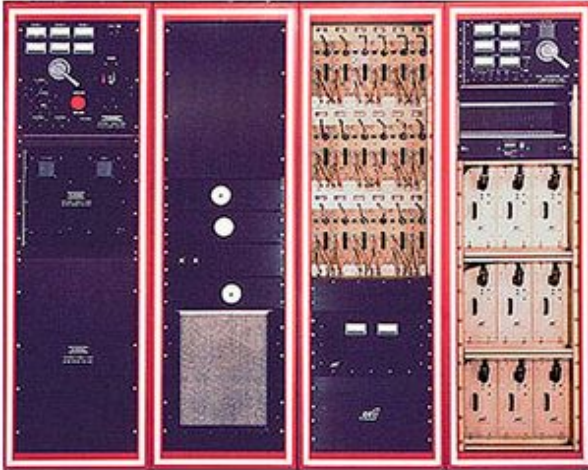




CUSTOM SCIENTIFIC RF AMPLIFIERS



55-Kilowatt Single Tube Tetrode RF Amplifier designed and built for Duke University FEL

QEI Corporation can meet the needs of your custom system design. The following is a sampling of RF Amplifier projects completed by QEI.

Brookhaven National Laboratory

- 65 kilowatt CW, 211 mHz, water cooled tetrode amplifier for NSLS.
- 4 kilowatt, CW, 52 mHz, water cooled, solid state amplifier for NSLS.
- 12 each 3.5 kilowatt, CW, 196 mHz, water cooled, solid state amplifier for RHIC.
- 8 kilowatt, CW, 211 mHz, water cooled solid state amplifier for NSLS
- 12 each 500 Watt, 2-30 MHz, Class A, linear RF Amplifiers for RHIC

TRIUMF

- 21 each, 600 Watt, 141 MHz, linear, CW, RF Amplifiers for ISAC-II

Duke University

- 55 kilowatt, CW, 176 mHz, water cooled, tetrode amplifier for the Free Electron Laser (FEL).

Lawrence Berkely National Laboratory

- 6 each 20 kilowatt, long pulse, 402 mHz, air cooled, tetrode amplifier for SNS
- 3 each 80 kilowatt, long pulse, 2 mHz, air cooled, tetrode amplifier for SNS.

Huazhong University of Science & Technology (HUST)

- 12 kilowatt, CW, 101 mHz, water cooled, triode amplifier..

Joint Institute for Nuclear Research

- 25 kilowatt, 18-32 mHz, automatic tuning, water cooled, tetrode, RF Amplifier for Flerov Lab.
- 15 kilowatt 14-22 mHz, automatic tuning, water cooled, triode, RF Amplifier for Flerov Lab
- 3 each 20 kilowatt, 6.5-12.5 mHz, water cooled triode RF Amplifiers..

Oak Ridge National Laboratory

- 80 kilowatt, long pulse, 2 mHz, air cooled, tetrode amplifier for SNS.

KAI Technologies

- 20 kilowatt, CW, 27 mHz, air cooled, solid state, mobile generator for KAI Technologies.

Custom Scientific RF Amplifiers

QEI is well equipped to fulfill any system requirement in a timely and cost effective manner. Our manufacturing and fabricating abilities allow us to meet production goals without the costly use of outside contractors. QEI personnel accomplish all manufacturing in the QEI factory. QEI has designed equipment to meet the demanding needs of the broadcast industry for 40 years. The broadcast industry requires equipment that is extremely reliable, cost effective, and easy to maintain. Broadcast Transmitters are designed to operate 24/7 for many (20+) years, and QEI approaches all projects with these goals as paramount. QEI has supplied solid state and vacuum tube RF amplifiers to a number of national research laboratories and also has supplied RF generators for specialized heating applications most notably for environmental clean-up. QEI has expertise in both liquid-cooled and air-cooled designs.

QEI has expertise in many areas of electrical and mechanical design, including:

- RF Amplifier design
- Solid state from milliwatts to tens of kilowatts
- Tube designs greater than 100 kilowatts
- Frequency ranges up to 2000 MHz
- Integrated solid state and tube designs
- AC and DC power supply design
- Single phase and three phase designs
- Linear and switching regulator design
- Analog and Digital circuit design
- Control/Metering/Monitoring/Fault detection circuitry
- Mechanical packaging
- Aluminum and steel designs
- Quick turn prototyping

Years of field proven experience in custom design will assure you of the best possible product, with the most effective interface and monitoring system at a reasonable price.

QEI is always available to discuss your present and future needs. Please contact us so that we may provide you with a quote.



20 KW, 27 mHz, Solid-State Trailer Mounted (Mobile) Generator designed and built for KAI Technologies



20 KW, 6.5-12.5 MHz, RF Amplifier for JINR Front Panel