LE Linac 10 MW Modulator

# High Voltage Power Supply 110 kW

* SCR Controlled
* Capacitor Bank twelve 3 F [36 F] total, 30 F typical
* Voltage/Current 40 kV typical, 55 kV maximum / 350 Amps peak DC, 0.6 % duty factor

# RF Specifications

* Voltage Pulse into Power Tube
  + Without Beam 20 – 30 kV flat top
  + With Beam 35 kV peak
  + Maximum 40 kV
* Load
  + Range (80  to 140 ) shunted with 1500 pF minimum
  + Dummy Load 120  typical
  + Burle 7835 Power Triode Tube (operated Class C)
* Frequency Response: DC to 1 MHz
* Pulse Width: 300 – 500 s
* Pulse Repetition Rate: 15 Hz
* Pulse Duty Cycle: 0.75 % maximum
* Output Pulse Control 5 kV – 35 kV (120 ) / 5 kV – 30 kV (80 )
* Linearity < +/- 20 % without external feedback over output pulse control range
* Gain 10,000 minimum
* Slewing Rate 20 kV/s minimum
* Turn-On Rise/Fall Time 2 s maximum, 100 s typical
* Total Delay: < 300 ns

