PPM-2 Testing at SLAC

• Goal is to test the Toshiba PPM-2 Klystron to full design specs at SLAC.

• This Klystron has been previously tested to 73 MW at 1.5 microseconds at KEK at low rep rate.

• It has been modified to incorporate improved water-cooling, retuned output cavities and new window design.

• Initial Testing/Conditioning will be undertaken in KlystronTest Lab….

• Then installed in NLC
Preparations

• Install Magnet Stack Toshiba
• Install matching coil assembly at Toshiba
• Install collector support Rods at Toshiba
• Install lossy ceramic around collector isolation ceramic at Toshiba if possible.
• Fabricate Collector lead shielding and shielding Support structure-SLAC (Martin/Vlieks)
• Fabricate additional shielding Wall around Klystron-SLAC (Ross/McCormick)
• Design and fabricate modulator mating flanges-SLAC (Gold/Wilson)
• Dress tube at SLAC (Gold/Wilson)
  • Cooling water + diagnostics
  • lead
  • Magnet supplies
  • Interlocks/diagnostics
Abbreviated Schedule

• Bake-out Klystron - In process, will be complete 11/13/02
• Ship Bucking Coil Assembly, en-route to SLAC
• Ship Klystron from Tsukuba - 11/20/02, should arrive at SLAC ~12/10/02
• Set up and dress tube-
• Testing - To follow XP3 (install 1/6/03)
Testing /Conditioning

• Initial Setup will be checked by KEK personnel

• Initial turn on and testing will be performed by KEK personnel with SLAC assistance.

• An agreed-upon test procedure will be developed and testing will continue without the presence of KEK personnel.

Goal Operating parameters:

• 75 MW
• 1.5 μs pulse width
• 120 pps