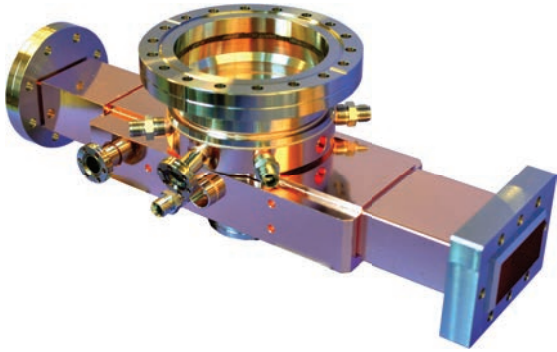


1.6 Cell Photoinjector



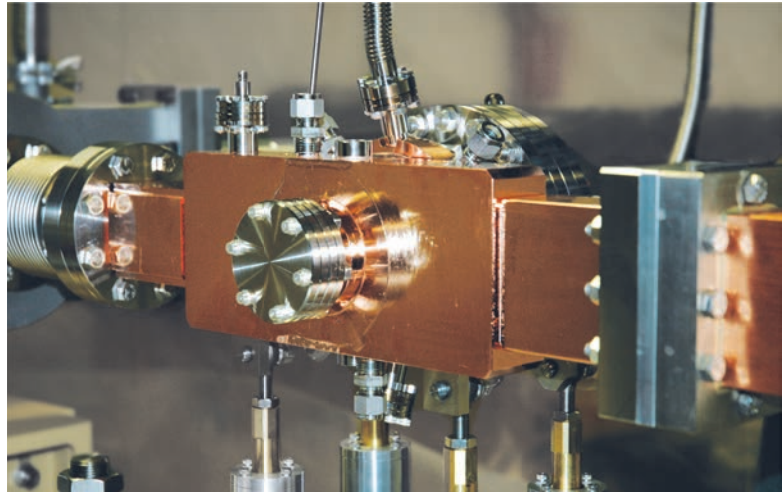
| | |
|-------------------------------|--------------------|
| Energy | ~5 MeV |
| Bunch change | Up to 1 nC |
| Normalized emittance | < 1.0 micron |
| π -mode frequency | 2.856 or 2.998 GHz |
| RF repetition rate | Up to 120 Hz |
| 0- π mode frequency | 14 MHz difference |
| Quality factor | 13,800 |
| External coupling | 1.8 |
| Shunt impedance | 60 M Ω /m |
| Peak surface field | 102 MV/m |
| Peak cathode field | 120 MV/m |
| Input power | 9.5 MW |

AVAILABLE FEATURES

- High RF repetition rate, up to 120 Hz
- Removable cathode
- 2.856 and 2.998 GHz models
- Fully positionable kinematic mounts
- Tunable solenoid

The newest version of the RadiaBeam High Repetition Rate Gun features several innovative features, including Z-coupling and enhanced cell-to-cell coupling to produce higher mode separation, symmetric couplers to minimize the dipole mode, and racetrack irises to minimize quadrupole field components. These features, currently found only in state-of-the-art photoinjectors such as the LCLS Gun and the RadiaBeam produced Sincrotrone Trieste Fermi Gun II, are achieved with a simpler and more economical single-feed design. This is accomplished by the flexibility of the racetrack coupling cell that mitigates unwanted dipole and quadrupole fields.

The RadiaBeam RF photoinjector is available with several options, including a range of external couplings and a matching emittance compensation solenoids.



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Other options are available upon request. Please contact us or visit our website for purchasing information.