TIMING SYSTEM AT MAX IV

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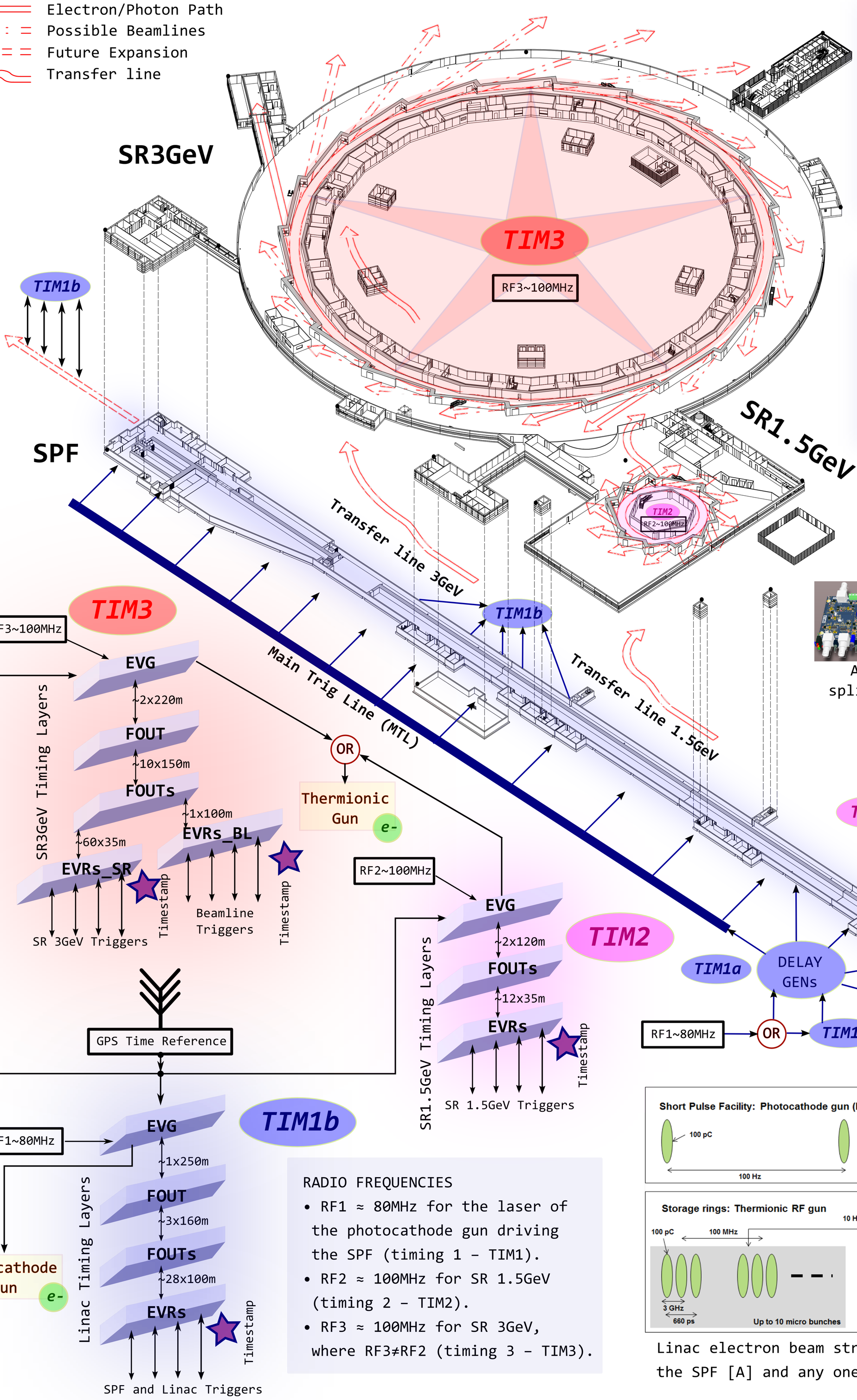
Electron/Photon Path
Possible Beamlines
Future Expansion
Transfer line

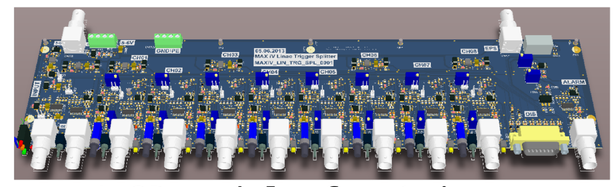


STATUS

The details of the final design are ongoing. The poster shows an outline of the timing system for the MAX IV facility that will meet our initial requirements and can be expanded in the future, if new needs arise.

SRs components that require synchronization

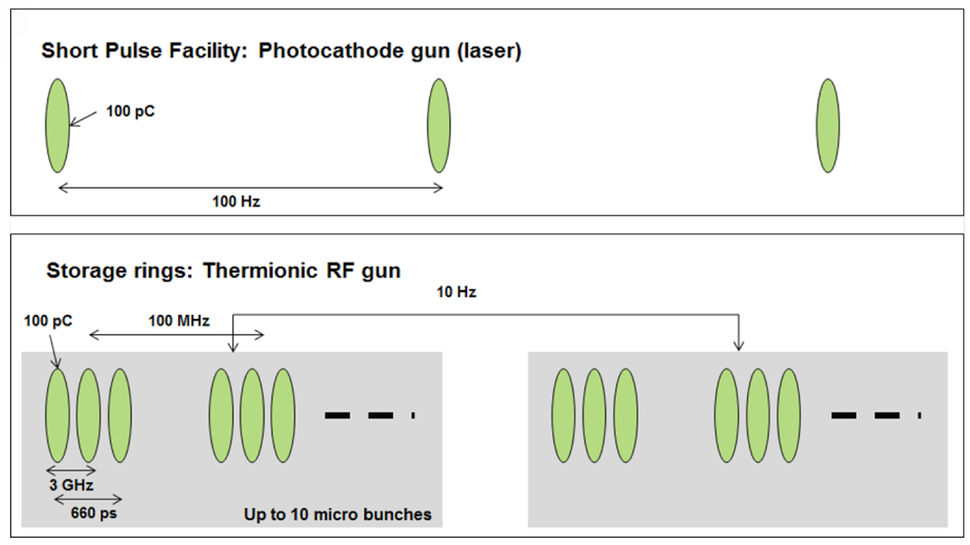
	SR 1.5GeV	SR 3GeV
Electron source	Thermionic gun	Thermionic gun
BPM crates	12	60
RF plants	1	3
Pulsed dipole magnet	1x horizontal, 1x vertical	1x horizontal, 1x vertical
Pulsed multipole magnet	1	1
Diagnostic beamline	1	1



A 3D model of a trigger splitter which was developed in-house for TIM1a

RADIO FREQUENCIES

- RF1 ≈ 80MHz for the laser of the photocathode gun driving the SPF (timing 1 – TIM1).
- RF2 ≈ 100MHz for SR 1.5GeV (timing 2 – TIM2).
- RF3 ≈ 100MHz for SR 3GeV, where RF3≠RF2 (timing 3 – TIM3).



Linac electron beam structure for injection into the SPF [A] and any one of the storage rings [B]