

FETS RF, Trigger and Clock Reference Distribution

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Introduction

- Some DAQ within FETS within synchronising with the ion source and/or RF
- BPMs require a 10MHz reference for its LO
- How is 324MHz for RFQ referenced?
- What do others require?

10MHz Reference

- Determine most stable 10MHz reference (OXCO) within the beam-line and distribute to other equipment
- RF sources, fast data acquisition, scopes etc use 10MHz ref to synthesise other clock rates

Trigger

- Laser emittance system requires a trigger
- What else?
- PXI system has very accurate trigger (TTL) distribution and 10MHz reference (OCXO)
- Existing infrastructure has 10us resolution trigger...

What next...

- Obtain trigger/RF/10MHz ref requirements for each beam-line diagnostic or control element
- Determine 10MHz ref source
- Design/install/test cabling

Please let me know your requirements...