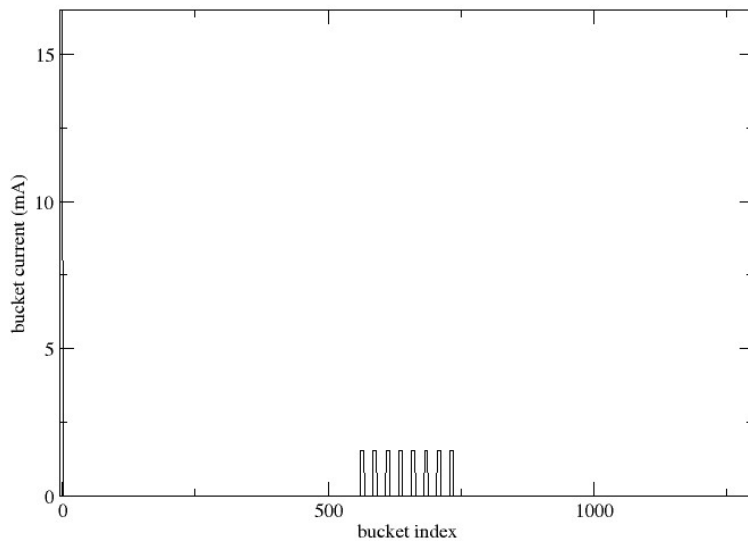
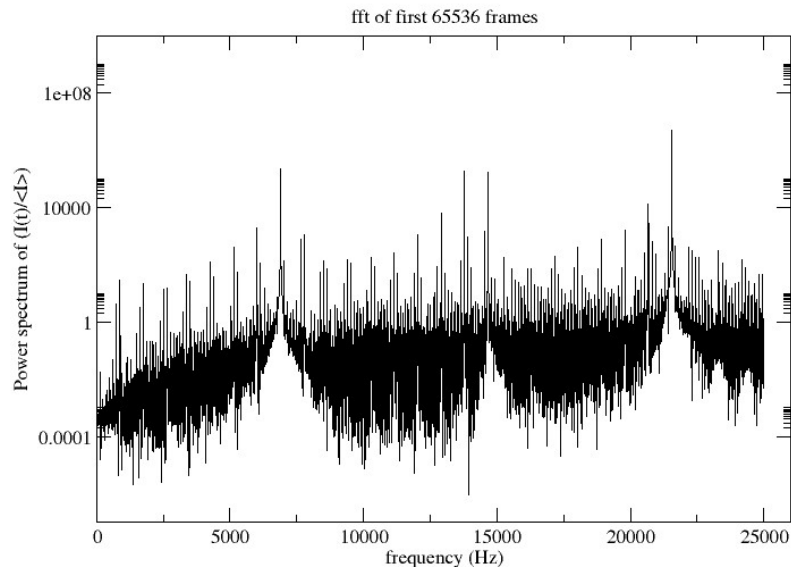


Hybrid mode pattern with 20 microsecond sampling



- Time (s) Simulated intensity
- 2e-05 526
- 4e-05 596
- 6e-05 526
- 8e-05 596
- 0.0001 526
- 0.00012 596
- 0.00014 526
- 0.00016 520.75
- 0.00018 585.25
- 0.0002 526
- 0.00022 596
- 0.00024 526
- 0.00026 596
- 0.00028 526
- 0.0003 531.5

Power spectrum of normalized time serie



- Intensity varies from frame to frame by 13% ($596/526$) peak to peak
- The bunch pattern is not uniform so we sample $20/3.68 = 5.43$ periods of revolution of the ring.
- One might be able to avoid the intensity variations with synchronizing to P0 and making the exposure time exactly 5 or 6 turns.
- It doesn't explain the 2.7 kHz observed.