ASD Specifications

1996: Integrated 1.2 u CMOS Preamp + Disc prototyped
    Proved basic specs: 6200 e’s enc, 1.4mV/fC sens.
    Simultaneous operation of preamp, disc
    Disc Time Walk < 500ps

1997: Change to HP 0.5u process, Amp+Shaper+Disc+LVDS
    Confirmed specs in new process, evaluate LVDS outputs

1998: Develop "ASD Lite" full 4-channel chip
    Reduce crosstalk from 5% -> 0.3% (unmeasurable)
    Demonstrate stable operation on-chamber, meet all specs
    Change baseline design to accommodate new gas (bipolar shaping)

1999: Package+test 4400 ASD Lites, prototype ADC, logic
    Demonstrate high yield (> 95%), tight parameter control in production
    Build and test (on chamber) Wilkinson ADC prototype
    Develop and submit "programmable ASD Lite"

2000: Beam Test Validation of analog path, first full Octal ASD
    Submit, test bipolar-shaping test chip (beam test)
    Test "programmable ASD Lite"
    Full, programmable Octal prototype development underway (Posch)

2001: Second Octal Prototype (production prototype)

2002: Finish ASD Production