

TD24R05 Summary(4)

8 December 2012

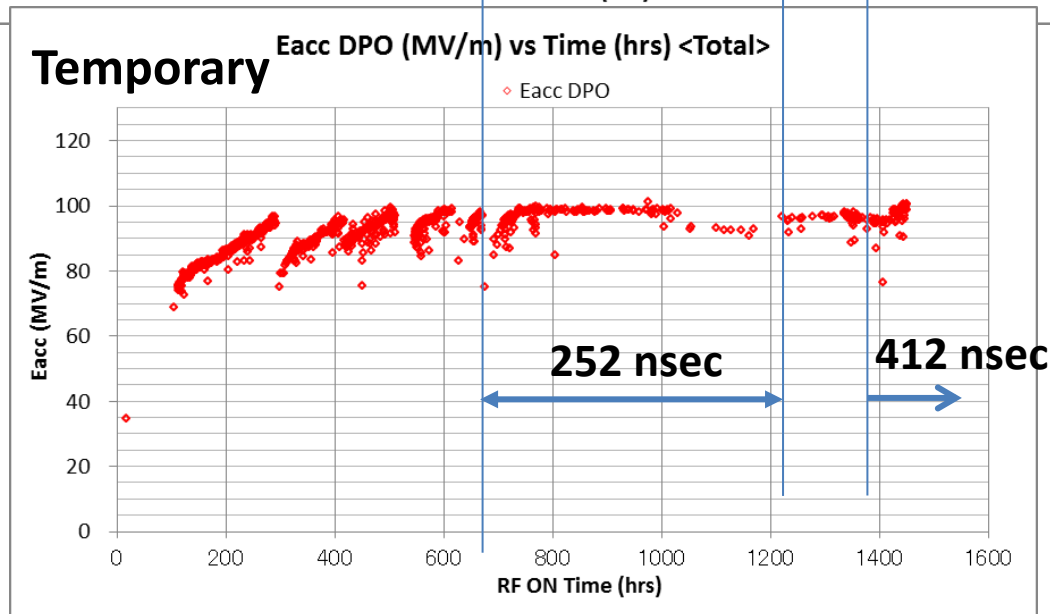
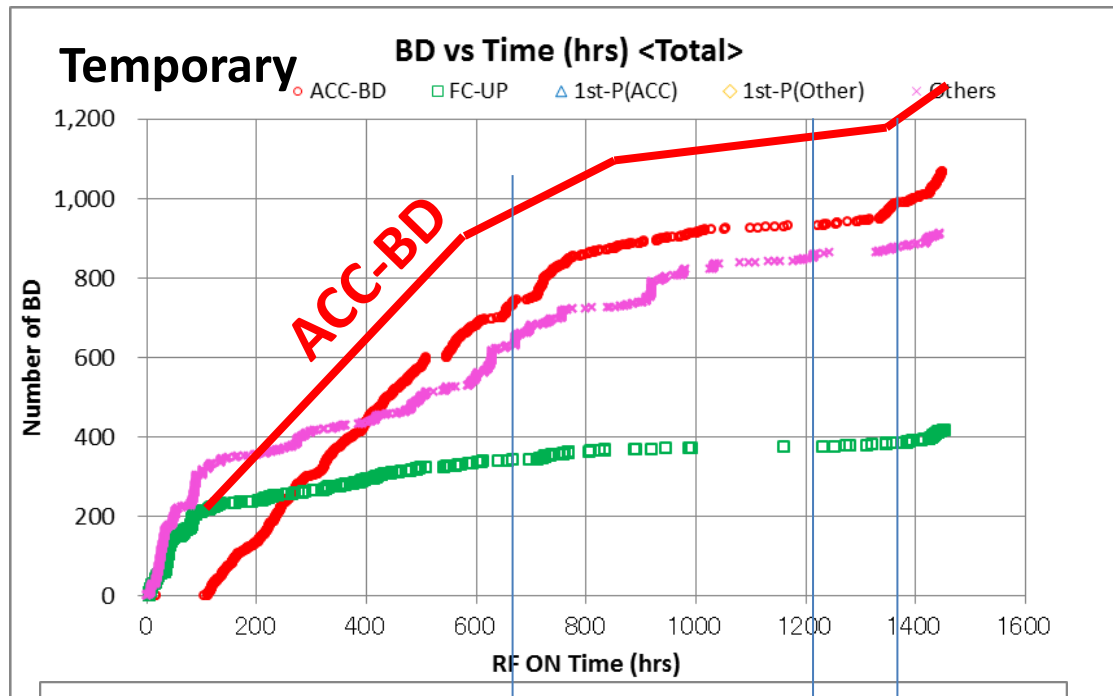
T. Higo and X-band group of KEK

Status of processing and breakdown characteristics until Dec. 8, 2012

- Reached 100 MV/m at 252nsec after 1000 ACC-BD's. Seems faster than TD24.
- BDR vs Eacc was measured at RF-ON time=1200 hrs. The similar BDR value as TD24 was observed.
- Pulse width was increased to 412 nsec in 200 hours.
- BDR vs width will be measured after settling at 412nsec.

TD24R05 #4

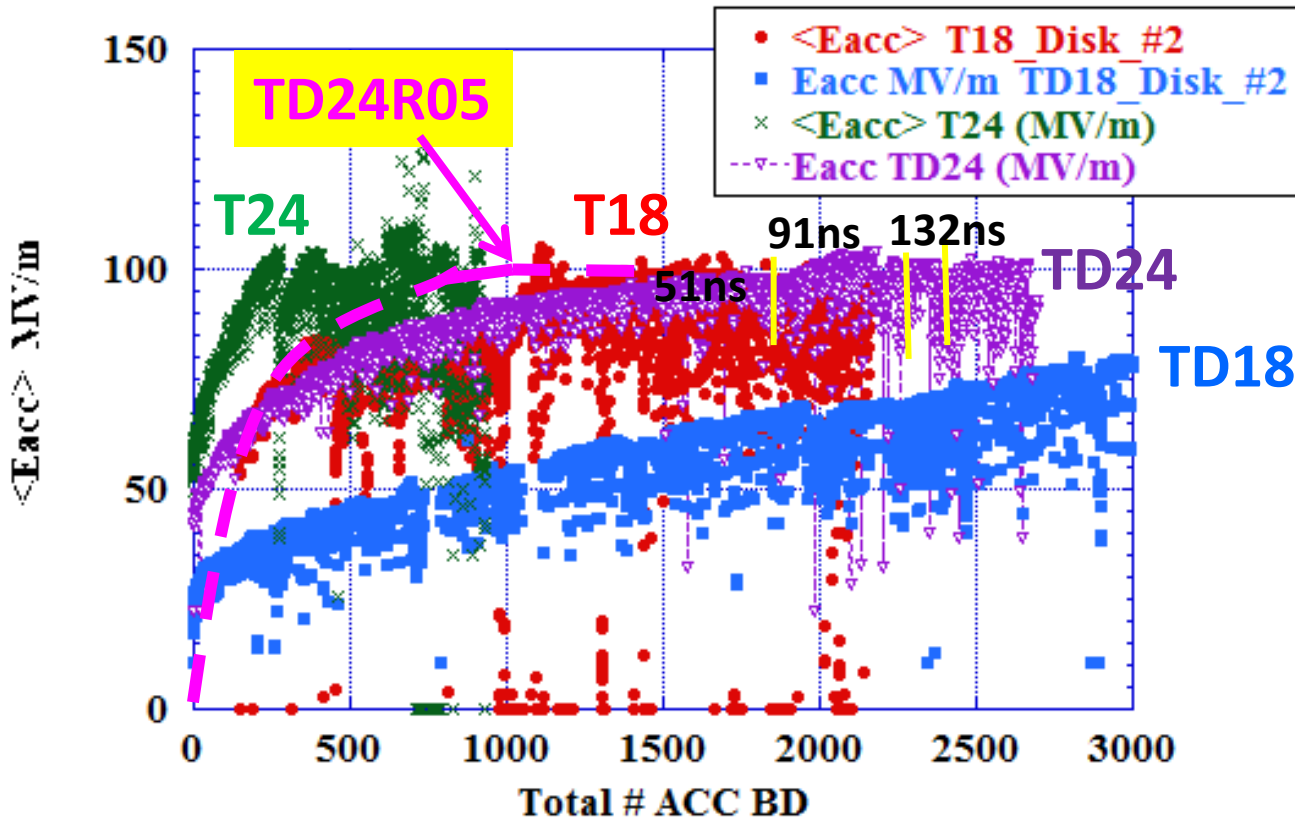
Initial processing



Difference in processing speed among four+1 structures

LCWS12 Arlington
+ later result of
TD24R05#2

Eacc vs #ACC-BD



Number of ACC-BD's until reaching the same level in (T_p , Eacc)

Speed

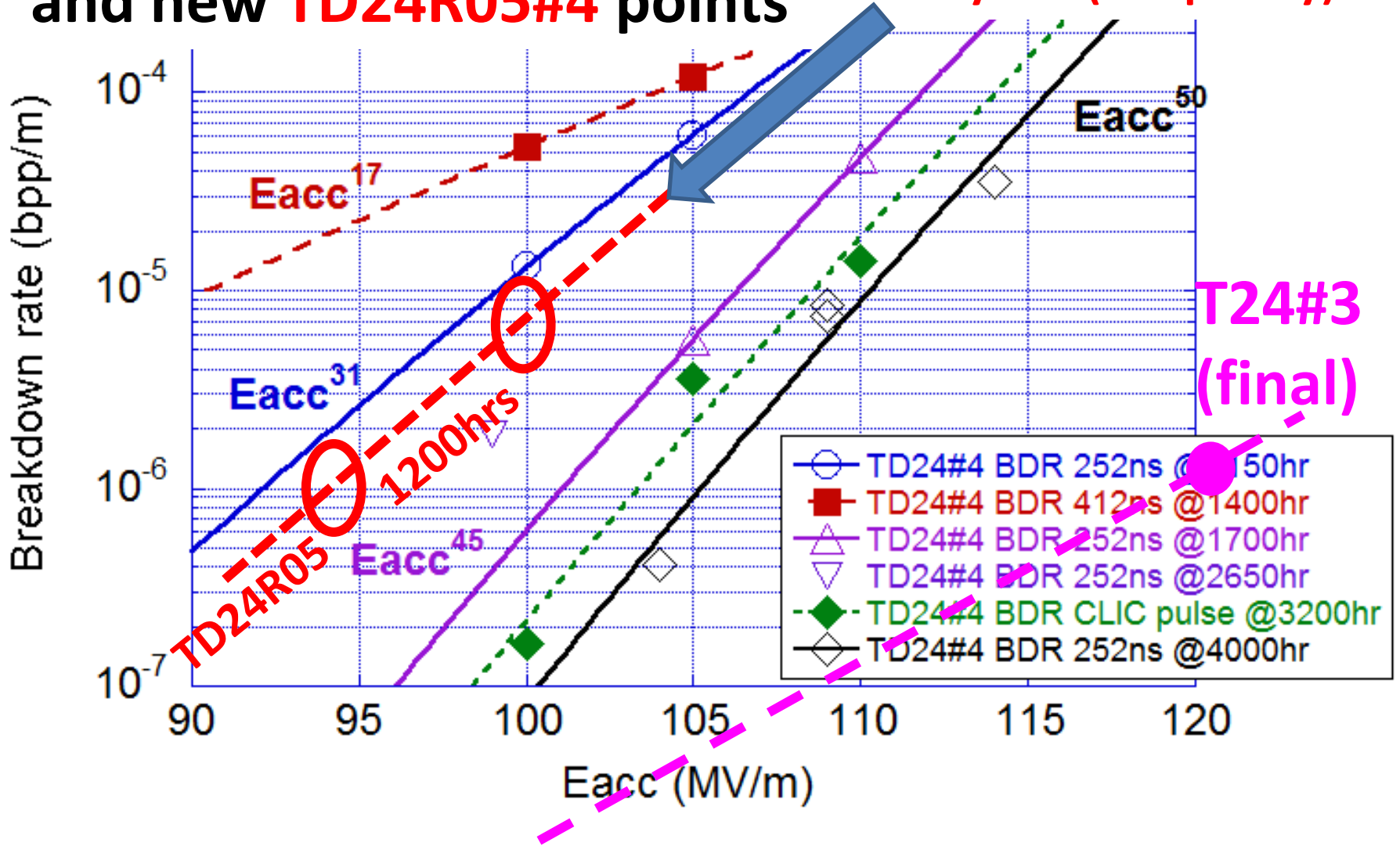
- T24
- TD24R05
- T18
- TD24
- TD18



Magnetic field!?!?

BDR summary on TD24#4 comparing to T24#3 and new TD24R05#4 points

BDR of TD24R05 at 252nsec was briefly analyzed. (temporary)



What to be studied from now

- Next program

- Evaluate **BDR vs width** (150-252-412) (2 weeks? Dec/10—Dec/25)
- BDR in **long run at 252nsec** and 95 - 100 MV/m (2 week? Jan/8—Jan/21)
- **Higher to 110 MV/m** at 252nsec (2 weeks Jan/21—Feb/4)
- **BDR at 252nsec** 95-100 MV/m (2 weeks Feb/4--Feb/14)

- Further specific studies

- During linac operation (Feb/14 till Mar/1)
- Intermittent operation for specific studies