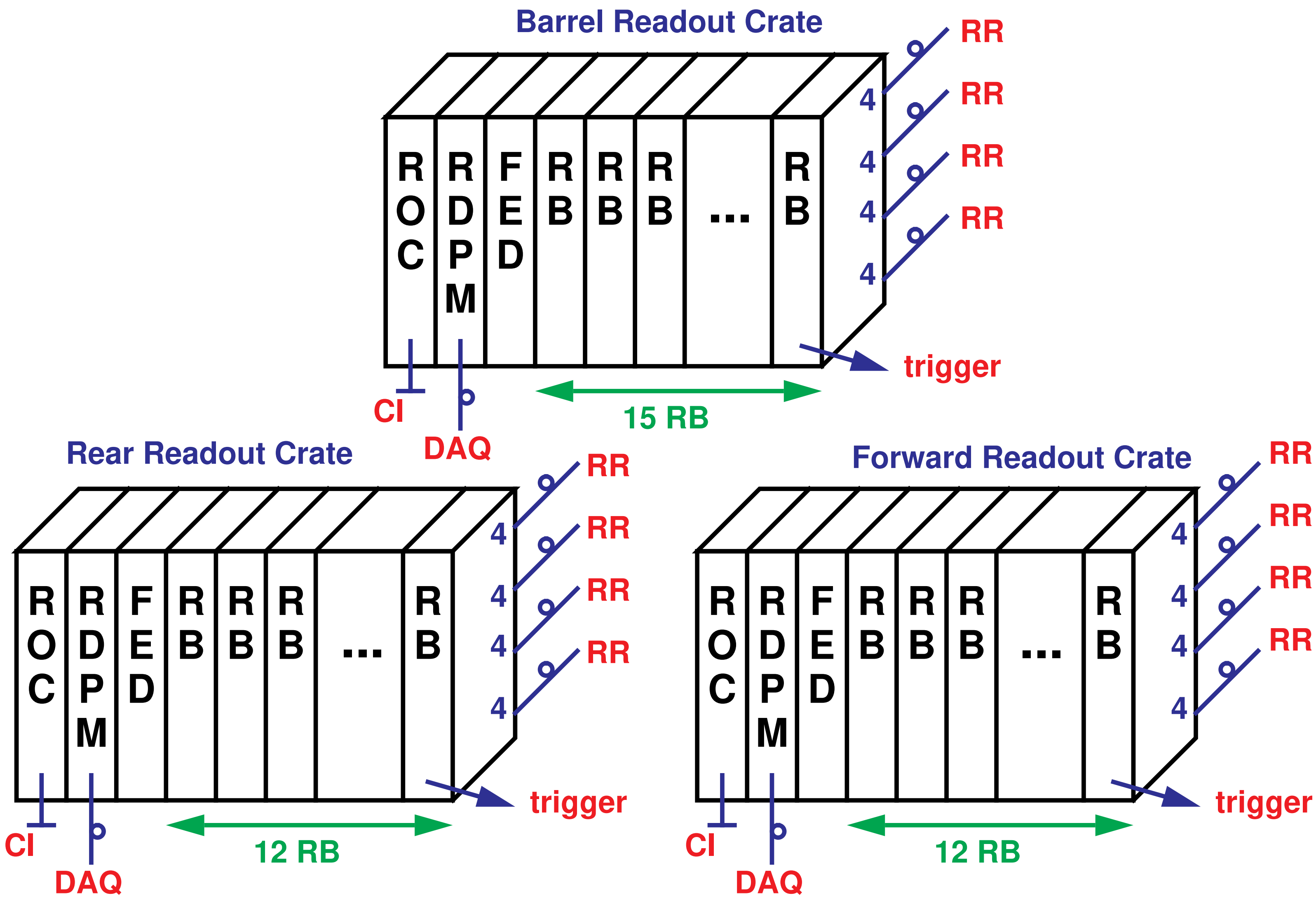
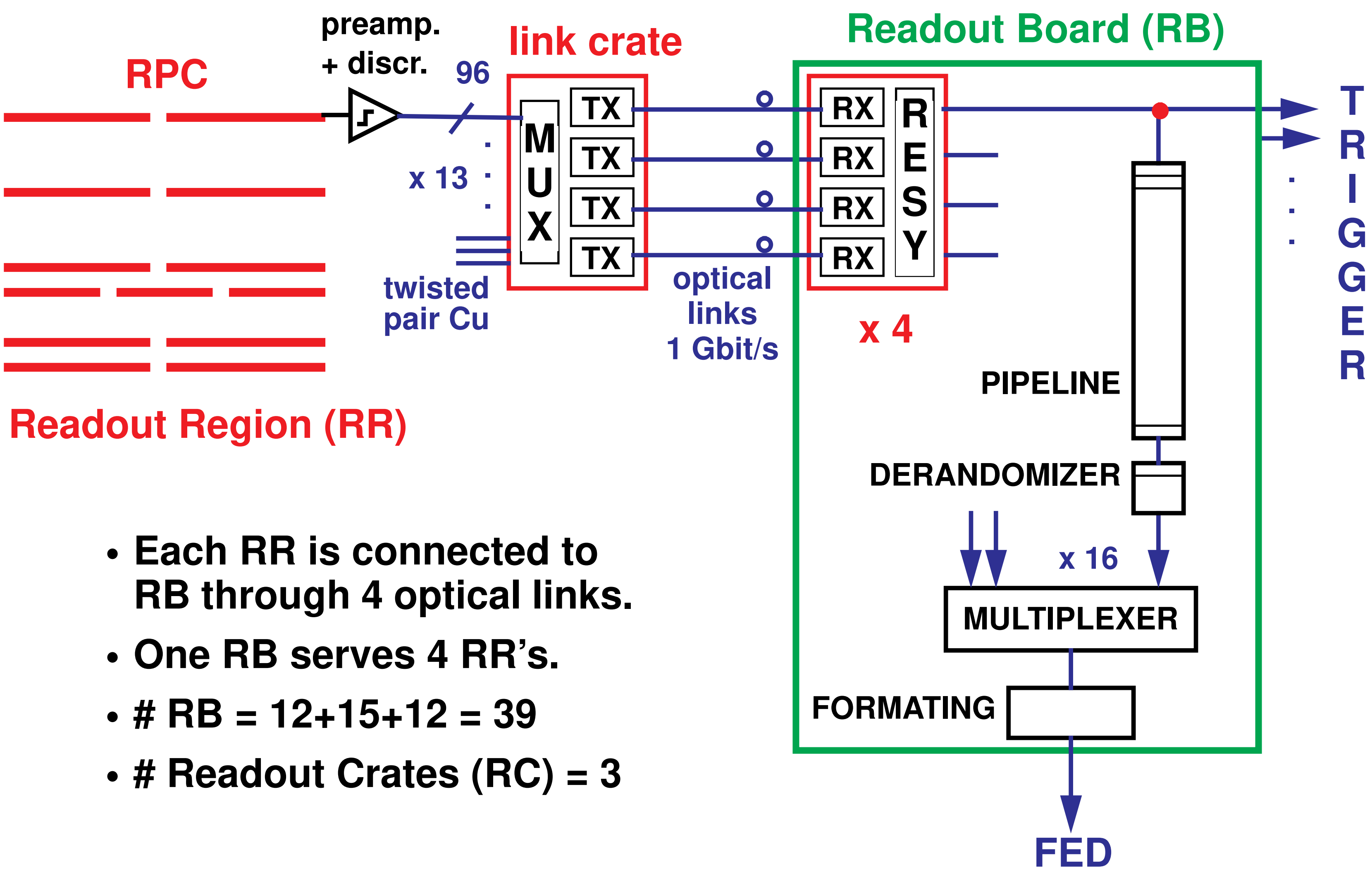
RPC Readout Crates (RC)

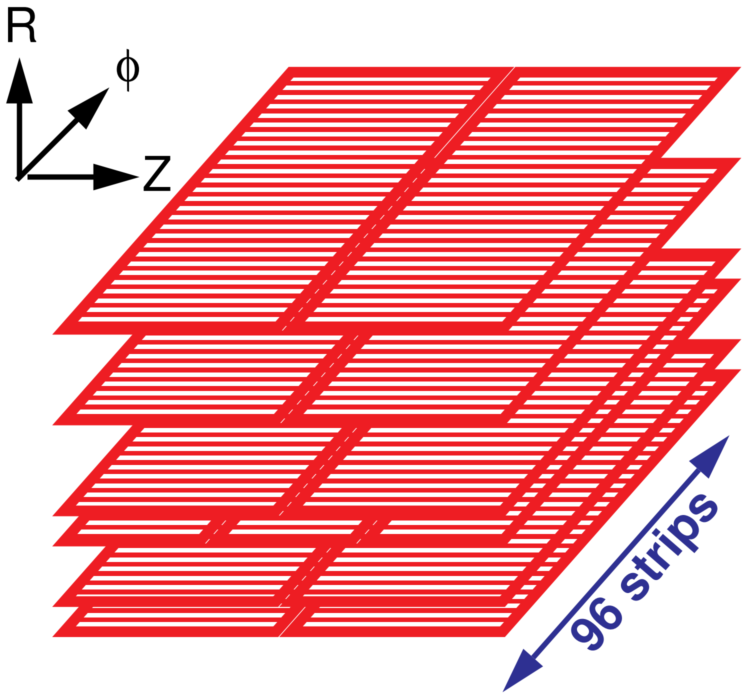


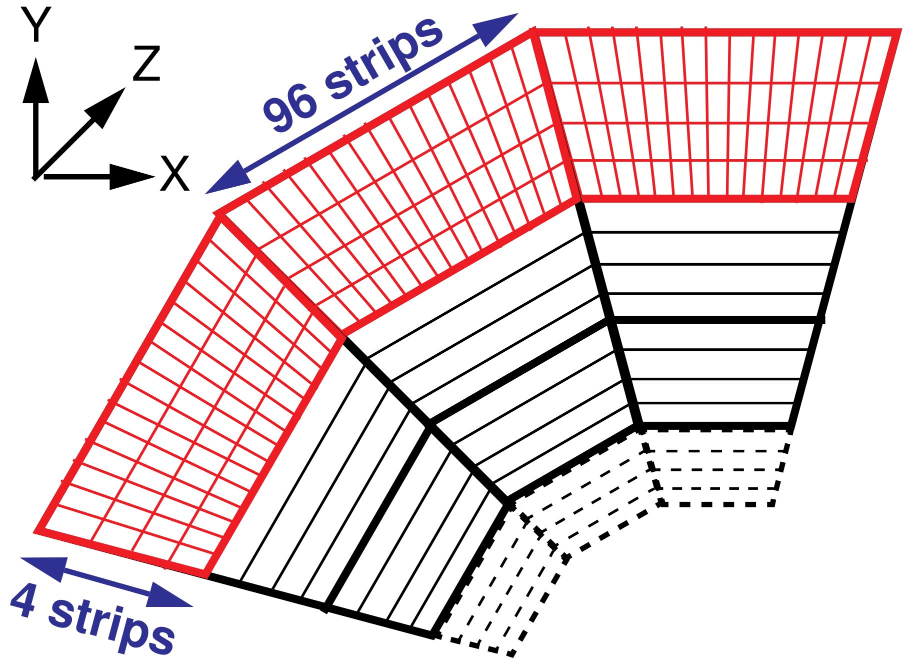
RPC Readout System



- Each RR is connected to RB through 4 optical links.
- One RB serves 4 RR’s.
- # RB = 12+15+12 = 39
- # Readout Crates (RC) = 3

RPC Readout Regions (RR)





Readout Region
= 30° φ–sector of 1 wheel
= 13 chambers × 96 strips

Barrel
= 12 φ–sectors × 5 wheels
= 60 Readout Regions

Readout Region
= 3 φ–sectors × 4 strips
= 12 "chambers" × 96 strips

Endcap
= 3 (R) × 4 (φ) × 4 MF
= 48 Readout Regions

RPC Readout System

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- **~200 000 channels, 1 bit/channel**
- **624 optical links**
- **156 Readout Regions**
- **39 Readout Boards**
- **3 Readout Crates and Readout Links**

- **events size:** **~300 Bytes** = ~150 hits × 16 bit address
- **data flow:** **~30 MBytes/s** for 100 kHz of 1st Level Trigger rate