

dccPreamble

dccStartBitPacket

dccData

dccStartBitData

dccData

dccStartBitData

dccData

dccEndBit

Synchronisation

Datenbyte 1
Adressbyte

Datenbyte 2
Befehlsbyte

Datenbyte 3
Prüfbyte

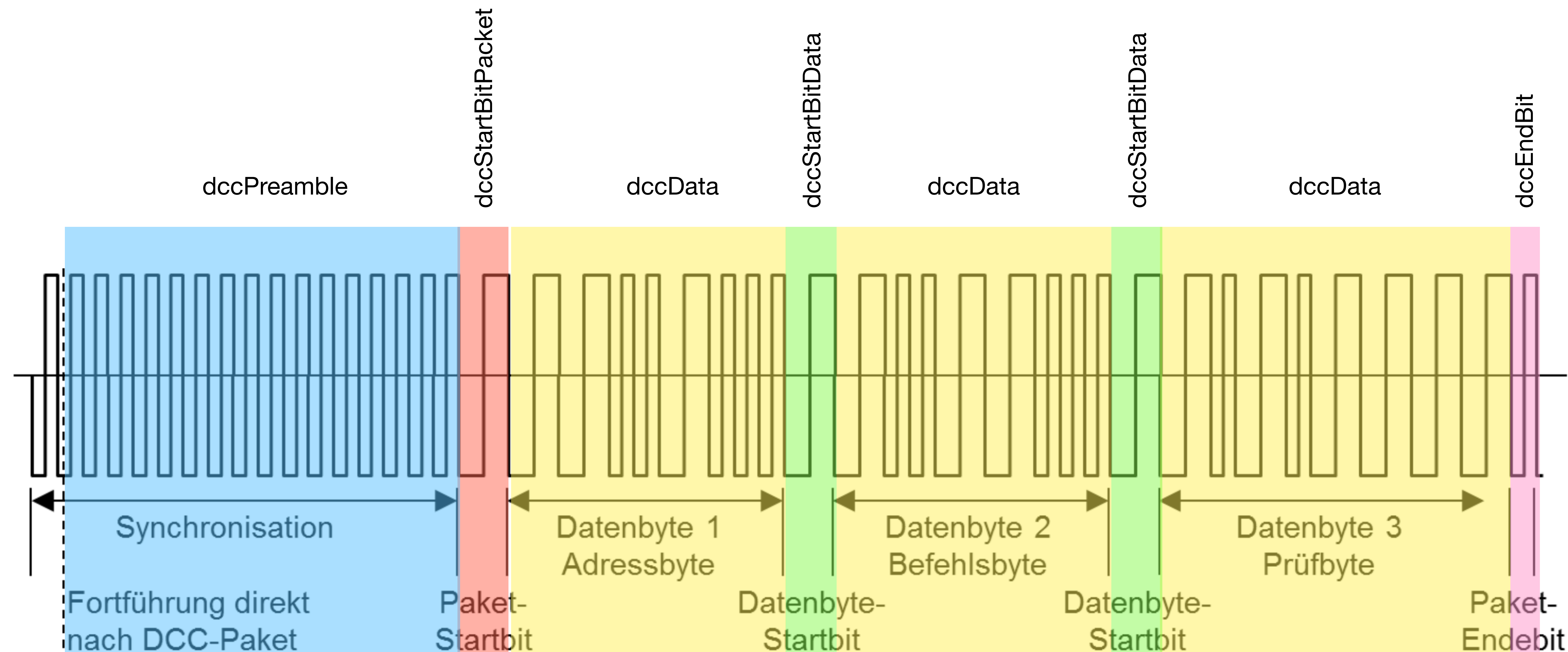
Fortführung direkt
nach DCC-Paket

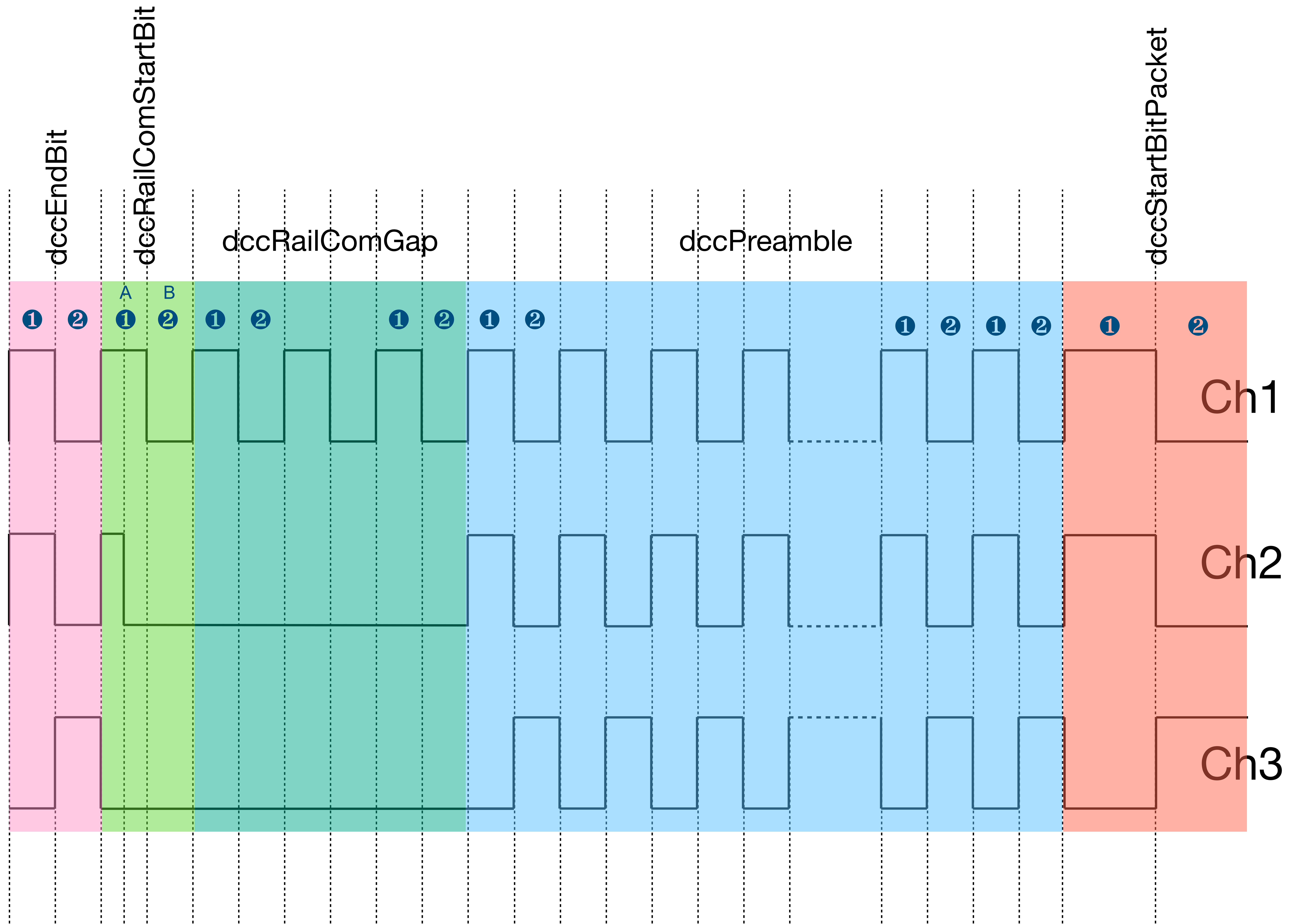
Paket-
Startbit

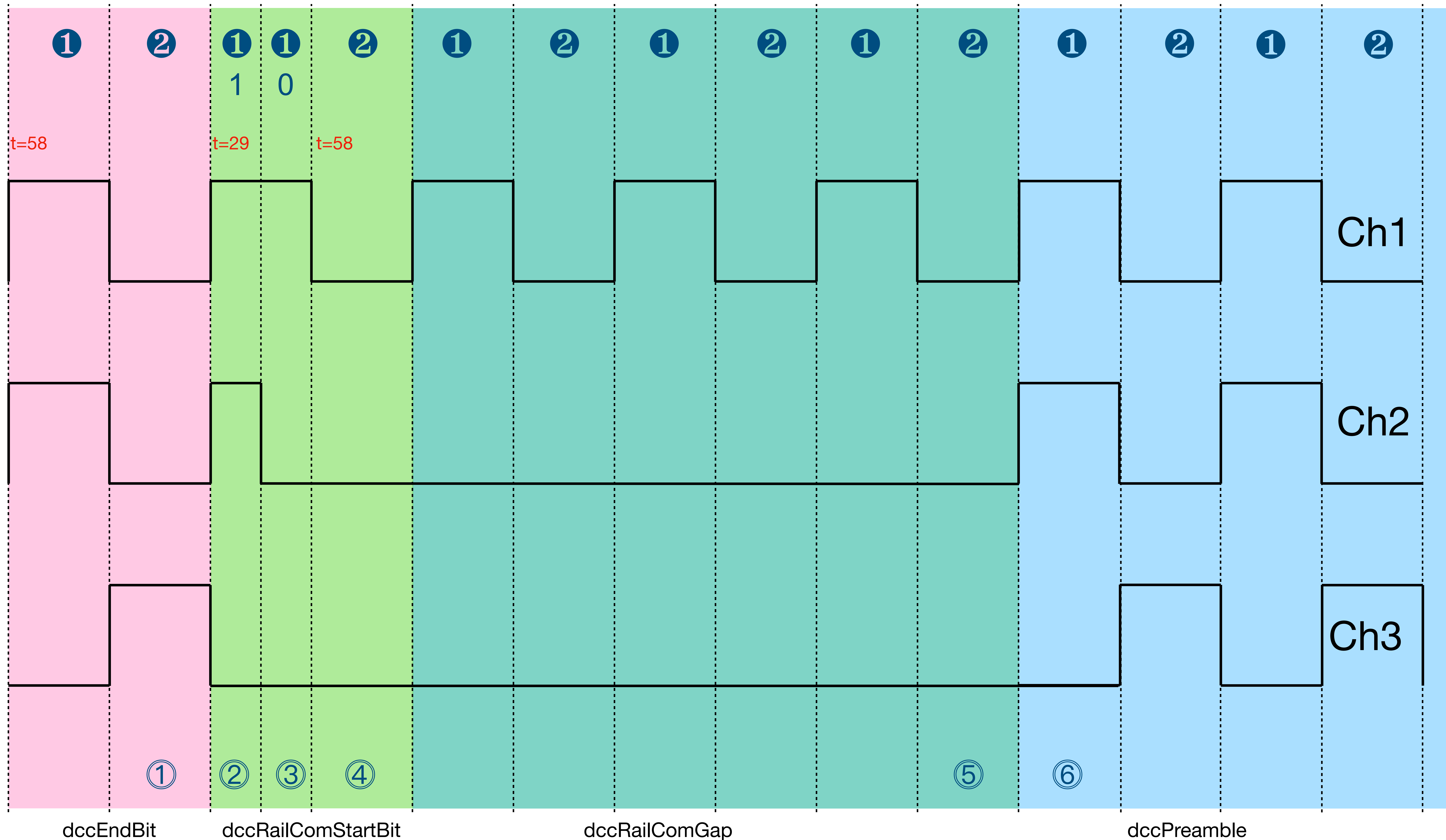
Datenbyte-
Startbit

Datenbyte-
Startbit

Paket-
Endebit







① => dccRailComStartBit

② t = 29 / Disable toggle CH1 & CH3

③ Enable toggle CH1 / Disable toggle CH2

④ => dccRailComGap / t = 58

⑤ => dccPreamble / Enable toggle CH2

⑥ Enable toggle CH3

MEGA 2560

```
*d1reg ^= d1bit; // Toggle  
if (CH1_toggle) {*d1reg ^= d1bit;} // Toggle, if allowed
```

Current Z21PG Pins: 6 (DCC), 11 (DCC S88/LocoNet), 39 (NDCC)

TIMER4 Pins: 6 (OC4A, PH3), 7 (OC4B, PH4), 8 (OC4C, PH5)

TIMER3 Pins: 5 (OC3A, PE3), 2 (OC3B, PE4), 3 (OC3C, PE5)

TIMER5 Pins: 44 (OC5A, PL3), 45 (OC5B, PL4), 46 (OC5C, PL5)

```
TCCRnA |= (1<<COMnx0); // enable toggle  
TCCRnA &= ~(1<<COMnx0); // disable toggle
```

```
TCCR4A |= (1<<COM4A0); // enable toggle CHA  
TCCR4A &= ~(1<<COM4A0); // disable toggle CHA  
TCCR4A |= (1<<COM4B0); // enable toggle CHB  
TCCR4A &= ~(1<<COM4B0); // disable toggle CHB  
TCCR4A |= (1<<COM4C0); // enable toggle CHC  
TCCR4A &= ~(1<<COM4C0); // disable toggle CHC
```

DxCore: Single Compare Match (Split Mode / Single Slope CTC)” → CNT reset automatisch bij compare match