

TB8 Outline

Dante Morelli, 12/04/25

16-bit External Address Bus

8-bit External Data Bus

6-bit Transport Address Bus

8-bit Transport Data Bus

Load instructions pull data from transport bus or immediate into buffer.

Store instructions push data from buffer onto transport bus.

bit	7	6	5..0
ld	0	0	source
ldi	0	1	immediate
st	1	0	destination
stc	1	1	destination

ld: Load data from source location into transport buffer

ldi: Load data from 6-bit immediate into transport buffer

st: Store data from transport buffer into destination location

stc: Store data from transport buffer into destination location **if** ALU comparator is true

Control Registers

type	7..6	5..4	3	2	1	0
ALU	Comparator Control 00: = 01: > 10: < 11: bit(s) set	Carry/M Control 00: Forced on 01: Forced off 10: Looped 11: M mode	S3	S2	S1	S0

Carry flag is latched on ALU result load, allowing carry input on subsequent operations in loop mode.