Digitrax Notes

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Contents

Chapter 1

Loconet Opcodes

1.1 Introduction

ADC HL, ss

Operation: $HL \leftarrow HL + ss + CY$

Group: 16-Bit Arithmetic

Format:

Opcode	Operands
ADC	HL, ss

ADC HL, ss

1	1	1	0	1	1	0	1	0EDH
0	1	s	s	1	0	1	0	

Description:

The contents of register pair ss (any of register pairs BC, DE, HL or SP) are added with CY, the Carry Flag (C flag in the F register), to the contents of register pair HL, and the result is stored in HL. Operand ss is specified as follows in the assembled object code:

Register Pair	ss
BC	00
DE	01
HL	10
SP	11

M CYCLES: 4 T STATES: 15(4,4,4,3)

Condition Bits Affected:

S: Set if result is negative; reset otherwise
Z: Set if result is zero; reset otherwise
H: Set if carry from Bit 11; reset otherwise
P/V: Set if overflow; reset otherwise
N: Reset
C: Set if carry from Bit 15; reset otherwise

Example:

If the register pair BC contains 2222H, register pair HL contains 5437H and the Carry Flag is set, after the execution of

```
ADC HL, BC
```

the contents of HL will be 765AH.