

- ① ALFA 16 bit
- 1 bit x SEGNO
 - 8 bit x ESPO ECC 128
 - 7 bit x MANT

- 64,5 IN ALFA

64,5 → $\begin{matrix} 64 & 32 & 16 & 8 & 4 & 2 & 1 & 0,5 \\ 1 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \end{matrix}$

1000000,1

- SEGNO: 1
- ESP: $6 + 128 = 10000110$ 0110 +
- MANT: 0000001 $\frac{10000000}{10000110}$

② $E_A = 0$

- ③ 44F1 ALFA IN ECC 512 10 bit

$\begin{matrix} & 4 & & 4 & & F & & 1 \\ 0 & | & 100 & & 0100 & & | & 111 & & 0001 \\ \hline & 7 & & 3 & & 0123 & & 7 \end{matrix}$

$2^3 + 2^0 = 9$

$2^9 (2^{-1} + 2^{-2} + 2^{-3} + 2^{-4}) = 2^8 + 2^7 + 2^6 + 2^5 = 1111000100$

- ④ 4160 ALFA IN DEC

$\begin{matrix} & 4 & & 1 & & 6 & & 0 \\ 0 & | & 100 & & 0001 & & 0110 & & 0000 \\ \hline & 7 & & 4 & & 3 & & 4 \end{matrix}$

- SEGNO: +
 - ESP: $100\ 00010 -$
 $\frac{100\ 00000}{000\ 00010}$
- $2^1 = 2$

$2(2^0 + 2^1 + 2^2) = 2^2 + 2^1 + 2^0 = 7$

- ⑤ RAID 1 TB STRIP 512 KB

512 GB

- ⑥ 2 TB

- ⑦ 256 GB ⑧ NUM STRIP RAID LVL 0 32 DISCHI

$1024: 32 = 32\ GB$

$32\ GB = 2^{35}$

$GB = 2^{30} \quad \frac{32\ GB}{512\ KB} = \frac{2^{35}}{2^{19}} = 2^{16} = 65536$

9) A 10) F 11) B

12)

A	B	C	A AND B	A AND B AND C	U1 NOR A	U2 OR B	B
0	0	0	0	0	1	1	
0	0	1	0	0	1	1	
0	1	0	0	0	1	1	
0	1	1	0	0	1	1	
1	0	0	0	0	0	0	
1	0	1	0	0	0	0	
1	1	0	1	0	0	1	
1	1	1	1	1	0	1	

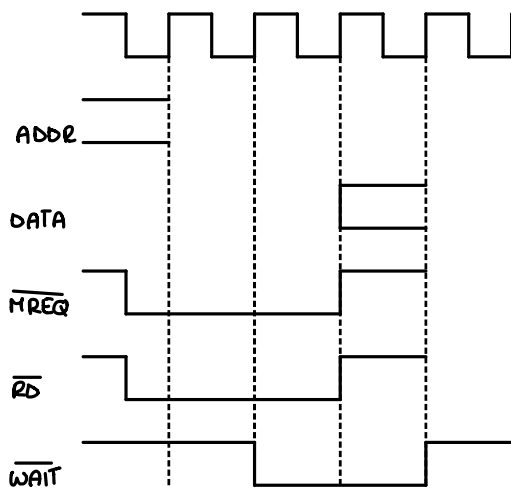
13)

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

(NOT A AND B) OR (A AND NOT B) OR (A AND B)

15) BUS SINCRONO 200 MHz
LINEE SEPARATE
T RISP 15 msec DA INDIR STABILI

$$1000/200 = 5 \text{ msec}$$



15) 10 msec

16) 17,5 msec

17) 20 msec

18) 30 msec

② $E_A = 0$

③ GGF1 ALFA im ECC 512 10 bit

- $\begin{array}{cccc} G & G & F & 1 \\ \hline 0100 & 0100 & 1111 & 0001 \end{array}$

- $$\cancel{000}01001 = 9$$

$$\begin{array}{r} 100\ 01001 - \\ \underline{100\ 00000} = \\ 0000\ 1001 \\ \quad \underbrace{\hspace{1.5cm}}_9 \end{array}$$

$$2^9(2^{-1} + 2^{-2} + 2^{-3} + 2^{-7})$$

$$2^8 + 2^7 + 2^6 + 2^2 - 2^{-9}$$

- 1111000100

$$\begin{array}{cc} 4 & 1 \\ 0|100 & 0001 \end{array} \quad \begin{array}{cc} 6 & 0 \\ 0|10 & 0000 \end{array}$$

2^2

$$2^2(2^{-1} + 2^{-2} + 2^0) = 2^1 + 2^0 + 2^2 = 7$$

512 GB

⑥ 2TB

⑧ $32/512 \cdot 2^{20} = 65536$

⑦ 256 GB

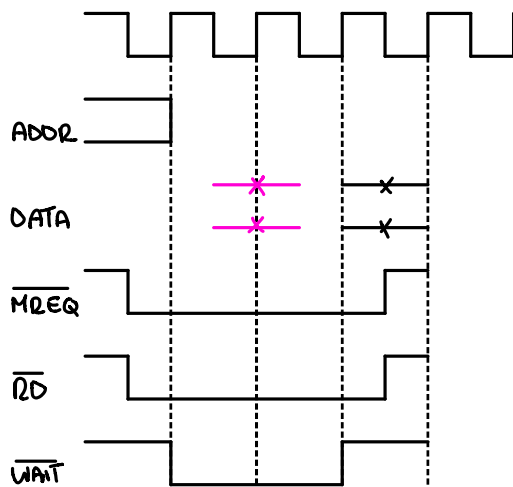
(12)	U1			U2	
	A	B	C	A AND B AND C	U1 NOR A U2 OR B
	0	0	0	0	1
	0	0	1	0	1
	0	1	0	0	1
	0	1	1	0	1
	1	0	0	0	0
	1	0	1	0	0
	1	1	0	0	1
	1	1	1	1	1

$$(A \text{ AND } B \text{ AND NOT } C) \text{ OR } (A \text{ AND NOT } B \text{ AND } C) \text{ OR } (A \text{ AND NOT } B \text{ AND NOT } C) \text{ OR } (A \text{ AND } B \text{ AND } C) \text{ OR } (A \text{ AND NOT } B \text{ AND } C) \text{ OR } (A \text{ AND } B \text{ AND NOT } C) \text{ OR } (A \text{ AND } B \text{ AND } C) \text{ OR } (A \text{ AND } B \text{ AND } C)$$

A	B	C	^{U1} A AND B AND C	^{U2} NOT A OR C	^{U2} U1 OR U2
0	0	0	0	1	1
0	0	1	0	1	1
0	1	0	0	1	1
0	1	1	0	1	1
1	0	0	0	0	0
1	0	1	0	1	1
1	1	0	0	0	0
1	1	1	1	1	1

- ⑤ BUS SINCRONO 200 MHz LINEE SEPARATE
15 msec indin stable

$$1000/200 = 5 \text{ msec}$$



①5 10 msec

①6 17,5 msec

①7 20 msec

①8 30 msec