

TRACCIA 12/12/2005

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μ1  IRX → MAR, 0 → T1, DECR(AC) → AC;
μ2  M[MAR] → MBR, INCR(MAR) → MAR;
μ3  MBR → B;
    if OR(AC) == 1 then
μ4    M[MAR] → MBR;
μ5    MBR → A;
μ6    A - B → B;
    if B_31 == 1 then
μ7      MBR → B, INCR(MAR) → MAR, INCR(T1) → T1, DECR(AC) → AC, go to C;
    else
μ8      MBR → B, INCR(MAR) → MAR, DECR(AC) → AC, go to C;
    end
    else
μ9    T1 → AC;

```

IMPLEMENTAZIONI:

- Segnale Kac per funzione
- Segnale Kmar per funzione
- Aggiunta funzione per registro T1

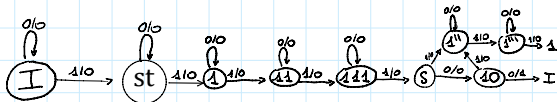
K'_{MAR}	OPERAZIONE
0	Non modifica il contenuto
1	Incrementa il valore

K'_{AC}	OPERAZIONE
0	Non modifica il contenuto
1	decremento

μ	A _{IR}	Z _{IR}	A _{PC}	K _{PC}	A _{AC}	A _{MAR}	A _{MBR}	S	L	E	A ₄	A ₅	A _{L0}	A _{L1}	A _{L2}	A _{T1}	K ^o _{T1}	K' _{T1}	A _{T2}	K ^o _{T2}	K' _{T2}	A _{T3}	K ^o _{T3}	K' _{T3}	K _{MAR}	A _{IND}	K _{IND}				Bus Indirizzi		Bus Dati	
																															x ₂ x ₁ x ₀	y ₁ y ₁ y ₀	x ₂ x ₀ x ₀	y ₃ y ₂ y ₁ y ₀
μ1	0	-	0	-	1	1	0	0	0	-	0	0	-	-	-	1	1	1	0	-	-	0	-	-	0	-	-	1	-	-	001	001	---	----
μ2	0	-	0	-	0	1	1	0	1	-	0	0	-	-	-	0	-	-	0	-	-	0	-	-	1	-	-	-	-	-	---	---	---	----
μ3	0	-	0	-	0	0	0	0	0	-	0	1	-	-	-	0	-	-	0	-	-	0	-	-	-	-	-	-	-	---	---	001	0110	
μ4	0	-	0	-	0	0	1	0	1	-	0	0	-	-	-	0	-	-	0	-	-	0	-	-	-	-	-	-	-	---	---	---	----	
μ5	0	-	0	-	0	0	0	0	0	-	1	0	-	-	-	0	-	-	0	-	-	0	-	-	-	-	-	-	-	---	---	001	0101	
μ6	0	-	0	-	0	0	0	0	0	-	0	1	1	1	1	0	-	-	0	-	-	0	-	-	-	-	-	-	-	---	---	100	0110	
μ7	0	-	0	-	1	1	0	0	0	-	0	1	-	-	-	1	0	1	0	-	-	0	-	-	1	-	-	1	-	---	---	---	----	
μ8	0	-	0	-	1	1	0	0	0	-	0	1	-	-	-	0	-	-	0	-	-	0	-	-	1	-	-	1	-	---	---	---	----	
μ9	1	1	0	-	1	0	0	0	0	-	0	0	-	-	-	0	-	-	0	-	-	0	-	-	-	-	-	0	-	---	---	101	0100	
μ10																																		
μ11								I	OR(AC)	B ₃₁	y ₂ y ₁ y ₀	y' ₂ y' ₁ y' ₀	Segnali α		Z _{IR}																			
μ12								COP9	-	-	000	001	μ1	0																				
μ13								COP9	-	-	001	010	μ2	0																				
μ14								COP9	-	-	010	011	μ3	0																				
μ15								COP9	1	-	011	100	μ4	0																				
								COP9	1	-	100	101	μ5	0																				
								COP9	1	-	101	110	μ6	0																				
								COP9	1	1	110	011	μ7	0																				
								COP9	1	0	110	011	μ8	0																				
								COP9	0	-	011	000	μ9	1																				

K'_{T1}	K^{oT1}	OPERAZIONE
1	1	Inserisce 0 nel registro

ESERCIZIO 1



STATO	y_3	y_2	y_1	y_0	x	0	1
I	0	0	0	0	0000.0	0001.0	
st	0	0	0	1	0001.0	0010.0	
1	0	0	1	0	0010.0	0011.0	
11	0	0	1	1	0011.0	0100.0	
111	0	1	0	0	0100.0	0101.0	
S	0	1	0	1	0110.0	0111.0	
10	0	1	1	0	0000.1	0111.0	
1''	0	1	1	1	0111.0	1000.0	
1'''	1	0	0	0	1000.0	0010.0	
	1	0	0	1			

X=0	00	01	11	10
00				
01				
11	x	x	x	x
10	1	x	x	x

X=1	00	01	11	10
00				
01				
11	x	x	1	x
10	x	x	x	x

$$y'_3 = y_2 \bar{x} + y_0 y_1 y_3 x$$

$$y'_2 = \bar{y}_0 y_3 \bar{x} + y_1 y_3 \bar{x} + \bar{y}_0 y_3 x + y_0 y_1 y_3 x + \bar{y}_2 y_3 x$$

1''	0 1 1 1	0111.0	1000.0
1'''	1 0 0 0	1000.0	0010.0
	1 0 0 1		
	1 0 1 0		
x	1 0 1 1		
x	1 1 0 0		
x	1 1 0 1		
x	1 1 1 0		
x	1 1 1 1		

$y_3' y_2' y_1' y_0', z$

11	x	x	x	x
10	x	x	x	x
00			1	1
01		1		
11	x	x	x	x
10	x	x	x	x
00			1	1
01			1	
11	x	x	x	x
10	x	x	x	x
00				
01				
11	x	x	x	x
10	x	x	x	x

11	x	x	x	x
10	x	x	x	x
00			1	1
01		1		
11	x	x	x	x
10	1	x	x	x
00				
01				
11	x	x	x	x
10	x	x	x	x
00				
01				
11	x	x	x	x
10	x	x	x	x

11	x	x	x	x
10	x	x	x	x
00			1	1
01		1		
11	x	x	x	x
10	1	x	x	x
00				
01				
11	x	x	x	x
10	x	x	x	x
00				
01				
11	x	x	x	x
10	x	x	x	x

$z = y_0 \overline{y_1} y_3 \overline{x}$