

## 匯率計算器

SUNSTAR单片机专用电路 <http://www.icasic.com/> TEL: 0755-83387030 FAX:0755-83376182 E-MAIL:szss20@163.com

### 一.功能簡介

1. 固定匯率:內部儲存了 23 個已公佈的固定匯率,廠家可按下表接線獲得一固定匯率(圖 V1.0)

Fixed Currency rate : Included 23 fixed rates option for selection. User can choose the optimum

rates for the production. ( V1.0 )

Index	Option	BONDING				CURRENCY	
		PC3	PC2	PC1	PC0	contry	corresponding
							currency
1	A	GND				ITL-意大利	1936.27
2	A	GND			GND	ESP-西班牙	166.386
3	A	GND		GND		IEP-爱尔兰共和国	0.787564
4	A	GND		GND	GND	DEN-德国	1.95583
5	A	GND	GND			PTE葡萄牙	200.482
6	A	GND	GND		GND	FIM-芬兰	5.94573
7	A	GND	GND	GND		GPD-希腊	340.75
8	A	GND	GND	GND	GND	NLG-荷兰	2.20371
9	B	PB2				ATS-奥地利	13.7603
10	B	PB2			GND	DKK-丹麦	7.50014
11	B	PB2		GND		FRF-法国	6.55957
12	B	PB2		GND	GND	BEF-比利时	40.3399
13	B	PB2	GND			LUF-卢森堡	40.3399
14	B	PB2	GND		GND	CYP-赛浦路斯	0.585274
15	B	PB2	GND	GND		CZK-捷克共和国	26.8411
16	B	PB2	GND	GND	GND	EEK-爱沙尼亚	15.6466
17	C	PB3				HUF-匈牙利	251.097
18	C	PB3			GND	LTV-拉脱维亚	0.704
19	C	PB3		GND		LTU-立陶宛	3.45
20	C	PB3		GND	GND	MLT-马耳他	0.4293
21	C	PB3	GND			PLN-波兰	3.61624
22	C	PB3	GND		GND	SKK-斯洛伐克	33.2455
23	C	PB3	GND	GND		SIT-斯洛文尼亚	239.64

2. 匯率計算 ( Currency Calculation ):

- A. EURO 輸入後轉換為他國貨幣或他國貨幣輸入後轉換為 EURO.

Key in the EURO and then exchange to the others Country or revert.

- B. 需要時可自行設定貨幣匯率且兩種貨幣相互轉換無誤差

Currency exchange rate setting by user: Two country currency exchange accurately.

- C. 輸入匯率時可進行計算, 顯示行的值隨輸入行的值即時變化

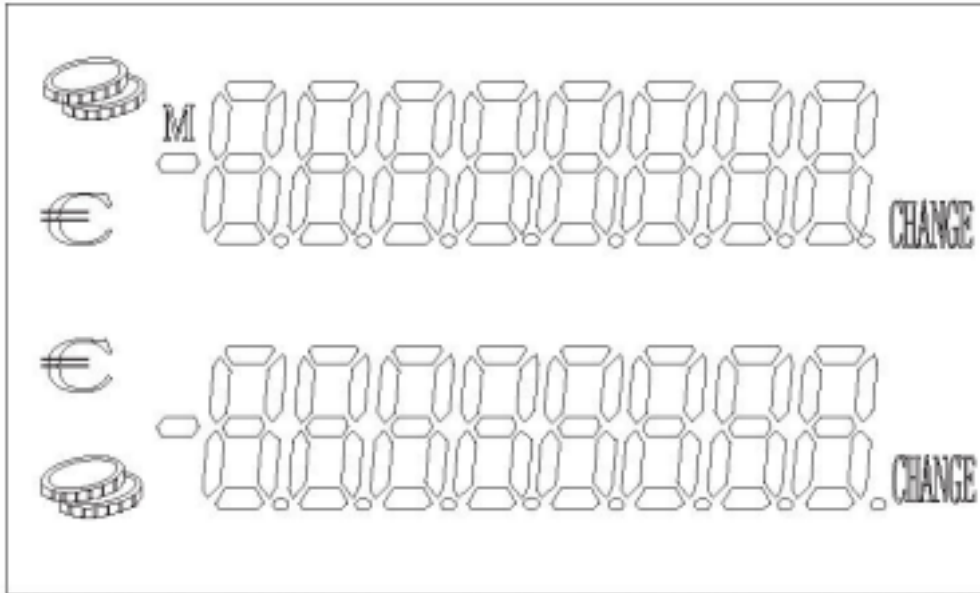
Numerical entries and the value will change automatically.

3. 計算器: ( Calculator )

- A. 8 位計算器 8 digit calculator

#### 4. 貨幣找換功能 ( Currency Exchange )

### 二. 畫面簡介 (圖 V2.0)



### 三. 功能操作 ( Operation )

1. Off : 關機功能 , 手動關機和自動關機後再開機都會保存之前狀態。

自動關機 : 中斷運行 8 分鐘左右

Off function: Manual / Auto power off ( 8 mins pass from the last key ) – the power supply for special memory will still be on unless the battery is removed.

2. On/c ; CE ; Calc ; ON : 都有開機的功能。其中按 On/c ; CE ; ON/CE/C 有清零的功能 , Calc 進入普通計算功能 , CE/C 不能開機。

On/c, CE, Calc, ON are with power on function. On/c, CE, ON/CE/C are with clear function. Press Calc key enters the normal calculation mode. Press CE/C key cannot power on.

3. + - x ÷ : 運算鍵 , 可進行加減乘除運算

+ - x ÷ four function keys

4. % : 運算鍵 , 可進行百分數計算 ( 公式化 )

% key: percentage calculation ( formulation )

EG :  $1+1\%=1.01$  ;  $0.1+2\%=0.102$  ;

$3-2\%=2.94$  ;  $4*5\%=0.2$  ;  $5/2\%=250$

5. Rate : 查看匯率 ( 可查看 23 個國家的固定匯率如 , 圖 V1.0 )

6. Euro : 歐元轉換功能, 輸入的是歐元, 上行顯示結果為本地貨幣, 轉換結果立即顯示。

Euro - Key in the EURO value, the upper line will display the Local value

7. Local : 輸入的是本地貨幣匯率, 上行顯示結果為歐元, 轉換結果立即顯示。

Local - Key in the LOCAL value, the upper line will display the Euro value

8. SET : 設定新匯率 ( 按數字鍵輸入新的匯率, 數值不為零和負值, 按 SET 鍵可保存新輸入的新匯率 )

SET – Exchange rate setting ( After numerical entries, press the SET key to save the new exchange rate. The numerical cannot be a zero or negative value. )

9. Erase : 倒退鍵 ( Erase key )

EG:(1) 輸入 0.01,按倒退鍵一次, 變成 0.0

Key in 0.01, then press Erase key 1 time, the value change to 0.0

- (2) 按 Rate 鍵,查看固定匯率,此時按 Erase 鍵不能退格,應無反應.

Press Rate key, check the current Exchange rate, the Erase key is no function as this moment.

10. Turn : 切換歐元和本地貨幣

Turn key – Euro and Local Value exchange.

11. PAY—H:貨幣找匯功能。下行輸入本地貨幣, 按 “ = ” 顯示轉換金額, 結果顯示負號代表欠款。

PAY-H : Payment Exchange function. Key in the Local value ( payment ) in the bottom line, then press the “ = ” key to display the exchanged value , The negative value mean the balance payment must be paid

12. PAY—E:貨幣找匯功能。下行輸入歐元, 按 “ = ” 顯示轉換金額, 結果顯示負號代表欠款。

PAY-E : Payment Exchange function. Key in the Euro value ( payment ) in the bottom line, then press the “ = ” key to display the exchanged value , The negative value mean the balance payment must be paid

#### 四、功能描述 ( Description )

1. 計算功能(Calc) : 按運算鍵選擇 “ + ” , “ - ” , “ \* ” , “ / ” , “ % ” 功能, 此計算器操作與普通計算器一樣 ( 8 位計算器 ), 運算結果將顯示在螢幕最底行。

Calculation function: Press “ + ” , “ - ” , “ \* ” , “ / ” , “ % ” keys to operated as the normal calculator function. The result will be displayed on the bottom line.

如果超出螢幕顯示範圍顯示 Err，此時只有可按以下四個鍵：On/C，CE，Calc，ON/CE/C 才能清掉 Err，按其他鍵無反應。輸入數字滿 8 位元時將不能再輸入。

The high-order 8-digits of a calculation result is indicated together with “ Err “, System / Calculation error can be released by On/C，CE，Calc，ON/CE/C only.

2. **歐元轉換功能：**按 Euro 鍵或 Local 鍵選擇當前有效匯率（歐元或各地貨幣匯率）。輸入所需轉換金額（下行顯示），同時上行顯示下行輸入金額所轉換的結果。

Euro / Local Exchange : Press Euro or Local Key to select the current Exchange Rate. ( Euro / other country currency ). Numerical entries (in the bottom line ), the exchanged value will displayed ( in the upper line )

EG： 當固定匯率為 40.3399,按 Euro,然後輸入所需轉換金額“ 23.25 ”，轉換結果“ 937.90 ”立即顯示在上行。

As the fixed rate is 40.3399, press Euro key, then key in the value “ 23.25”, the exchanged result “ 937.90 ” will displayed on the upper line.

當匯率為 65,按 Local,輸入所需轉換金額 23，轉換結果“ 0.35 ”立即顯示在上行。

As the fixed rate is 65, press Local key, then key in the value “ 23 ”, the exchanged result “ 0.35 ” will displayed on the upper line.

3. **貨幣找換功能：**按 PAY-E 鍵或 PAY-H 鍵,選擇所支付貨幣為歐元或本地貨幣.按數字鍵輸入所支付的金額.

**Payment Exchange :** Press PAY-E / PAY-H key to select the payment unit ( Euro / Local ), then key in the value ( paid ).

EG : ( 1 ) 固定匯率為 1936.27 : 輸入 1 歐元(貨價)，上行顯示當前貨幣為 1936.27，下行顯示歐元 1。按 PAY-E 鍵，輸入 2，按等號後，上行顯示 1936.27，下行顯示 1.00。

The fixed rate is 1936.27 : Key in 1 unit Euro, the upper line display the current value is 1936.27, the bottom line display the 1 unit Euro. After press the PAY-E, key in “ 2 “ ( paid 2 unit Euro ), then press “ = “ key, the upper line display 1936.27, the bottom line display 1.00. ( Positive value mean Rebate )

( 2 ) 固定匯率為 1936.27，輸入 2 歐元(貨價)，上行顯示當前貨幣為 3872.54，下行顯示歐元 2。按 PAY-E 鍵，輸入 1，按等號後，上行顯示 -1936.27，下行顯示 -1.00。(負號

The fixed rate is 1936.27 : Key in 2 unit Euro, the upper line display the current value is 3872.54 , the bottom line display the 2 unit Euro. After press the PAY-E, key in “ 1 “ ( paid 1 unit Euro ) , then press “ = “ key, the upper line display -1936.27, the bottom line display -1.00. ( Negative value mean balance payment )

( 3 ) 設定匯率為 54 , 輸入 500 歐元(貨價) , 按 PAY-E 鍵 , 輸入 600 , 按 Enter 後 , 上行顯示 5400.00 , 下行顯示 100.00 ( 找錢 ) 。 如果輸入 500 歐元 , 按 PAY-E 鍵 , 輸入 400 , 按 Enter 後 , 上行顯示-5400.00 , 下行顯示 -100.00 ( 負號表示欠款 )

The fixed rate is 54: key in 500 unit Euro, press PAY-E, if key in 600 unit Euro, then press “ = ”, the upper line display 5400, bottom line display 100 ( mean rebate ) ; if key in 500 unit Euro, then press “ = ”, the upper line display -5400, the bottom line display -100 ( mean balance payment )

4. **查看匯率功能** : 按 RATE 鍵可查看 23 個國家的固定匯率. ( 見圖 V1.0 )

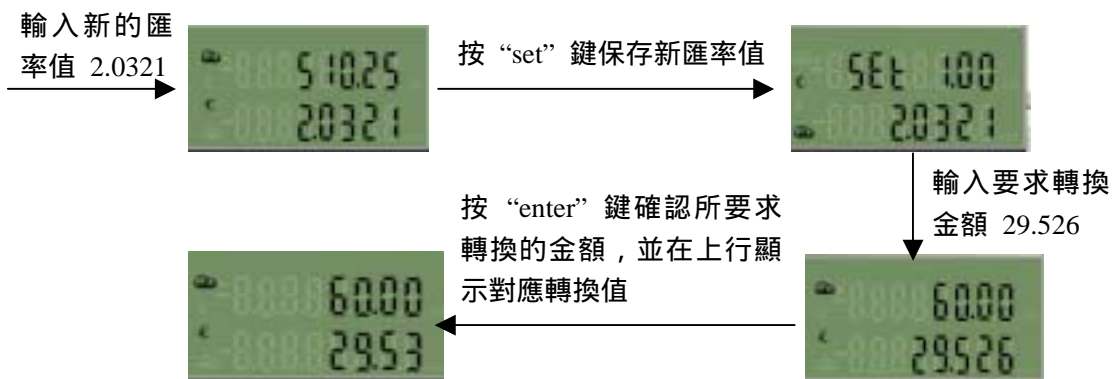
Check Exchange rate : Press Rate key to check the fixed rate ( V1.0 )

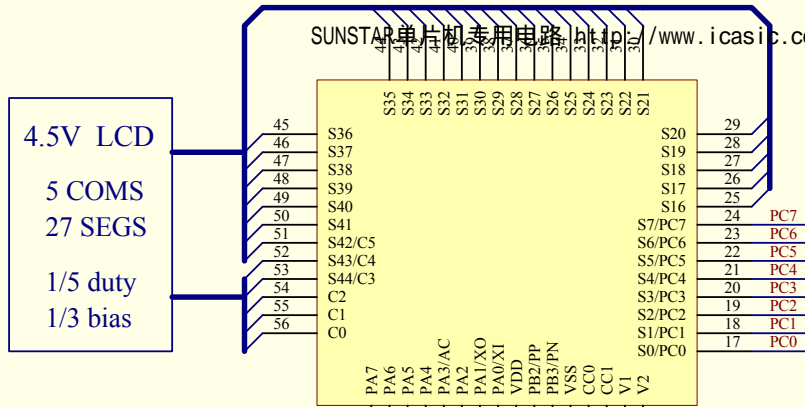
5. **改變匯率的設置** : 按數字鍵輸入新的匯率 ( 數值不為零和負值 ) , 按 SET 鍵可保存新輸入的匯率。

**Exchange rate setting** : Key in the new exchange rate ( cannot be zero or negative number ) , then press SET key to save the new Exchange rate.

EG : 輸入 2.0321,按 SET 鍵保存新輸入的匯率. 此時匯率變為 2.0321. 下行輸入 29.526,按 Enter 後,下行顯示 29.53,上行顯示 60.00.

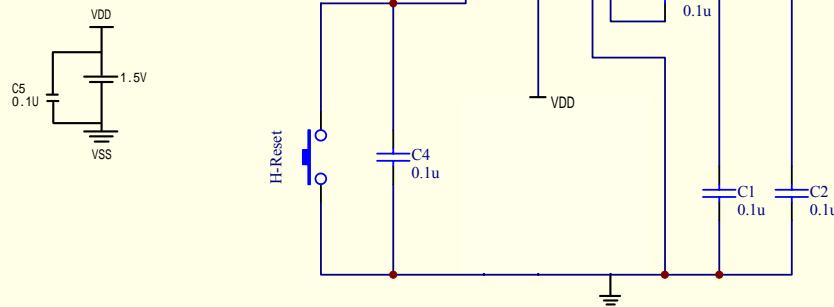
Key in 2.0321 , press SET key to save the new exchange rate. Now the Exchange rate is 2.0321. Key in the number 29.526 , the number 29.53 will be displayed in the bottom line, and 60.00 will be displayed in the upper line.



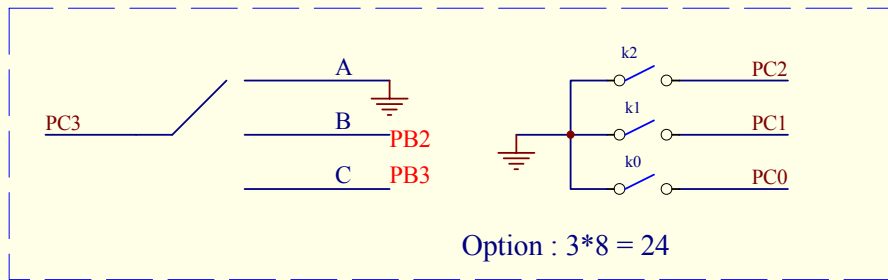


A000 ==>	1936.27 ITL	B000 ==>	13.7603 ATS	C000 ==>	251.097 HUF
A001 ==>	166.386 ESP	B001 ==>	7.50014 DKK	C001 ==>	0.7040 LTV
A010 ==>	0.787564 IEP	B010 ==>	6.55957 FRF	C010 ==>	3.450 LTU
A011 ==>	1.95583 DEM	B011 ==>	40.3399 BEF	C011 ==>	0.4293 MLT
A100 ==>	200.482 PTE	B100 ==>	40.3399 LUF	C100 ==>	3.61624 PLN
A101 ==>	5.94573 FIM	B101 ==>	0.595274 CYP	C101 ==>	33.2455 SKK
A110 ==>	340.750 GRD	B110 ==>	26.8411 CZK	C110 ==>	239.640 SIT
A111 ==>	2.20371 NLG	B111 ==>	15.6466 EEK		

例：A010 1、PC3对VSS连通。  
2、PC2 PC0对VSS断开，PC1对VSS连通。



	PC7	PC6	PC5	PC4	
7	8	9	/	On/C	PA0
4	5	6	*	CE/C	PA1
1	2	3	-	Calc	PA2
0	.	=	+	%	PA4
SET	Local	Euro	Rate	Off	PA5
PAY H	PAY E	Turn	Erase	ON/CE/C	PA6
MRC	M+	M-	1/1000	1*1000	PA7

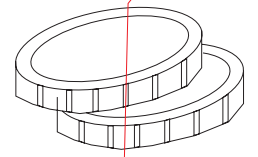
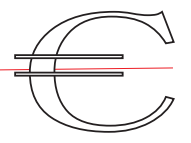
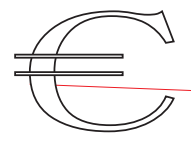


Option : 3\*8 = 24

Title		
Size A4	Number	Revision
Date:		1/1
File:		Dick

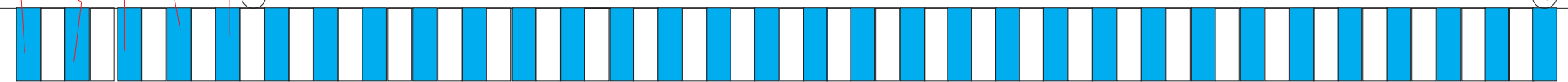
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M



CHANGE

CHANGE



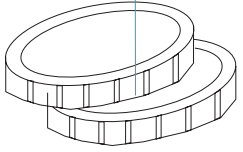
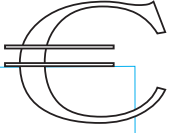
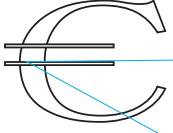
C0

C4  
S16

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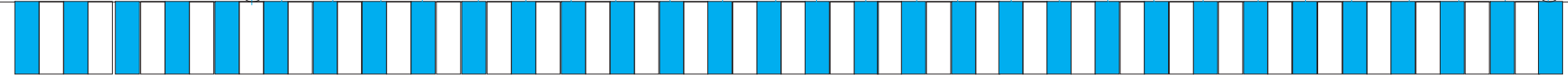
S42

M  
C



CHANGE

CHANGE



C0

C4

S16

S42



# Pad assignment:

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#	Name	X	Y	#	Name	X	Y	#	Name	X	Y
1	PA7	-627.7	847.7	20	S3 PC3	-300	-847.7	39	S30	627.7	200
2	PA6	-627.7	728	21	S4 PC4	-200	-847.7	40	S31	627.7	300
3	PA5	-627.7	615	22	S5 PC5	-100	-847.7	41	S32	627.7	405
4	PA4	-627.7	510	23	S6 PC6 EL0	0	-847.7	42	S33	627.7	510
5	AC_PA3	-627.7	405	24	S7 PC7 EL1	100	-847.7	43	S34	627.7	615
6	PA2	-627.7	300	25	S16	200	-847.7	44	S35	627.7	728
7	PA1 XO	-627.7	200	26	S17	300	-847.7	45	S36	627.7	847.7
8	PA0 XI	-627.7	100	27	S18	405	-847.7	46	S37	515	847.7
9	VDD	-627.7	0	28	S19	515	-847.7	47	S38	405	847.7
10	PB2 PP	-627.7	-100	29	S20	627.7	-847.7	48	S39	300	847.7
11	PB3 PN	-627.7	-200	30	S21	627.7	-728	49	S40	200	847.7
12	VSS	-627.7	-300	31	S22	627.7	-615	50	S41	100	847.7
13	CC0	-627.7	-405	32	S23	627.7	-510	51	S42 C5	0	847.7
14	CC1	-627.7	-510	33	S24	627.7	-405	52	S43 C4	-100	847.7
15	V1	-627.7	-615	34	S25	627.7	-300	53	S44 C3	-200	847.7
16	V2	-627.7	-728	35	S26	627.7	-200	54	C2	-300	847.7
17	S0 PC0	-627.7	-847.7	36	S27	627.7	-100	55	C1	-405	847.7
18	S1 PC1	-515	-847.7	37	S28	627.7	0	56	C0	-515	847.7
19	S2 PC2	-405	-847.7	38	S29	627.7	100				

The IC substrate should be connected to Vss in the PCB layout artwork

