



HE83121 APPROVAL AND TOOLING FORM

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COMPANY NAME: _____ DATE: _____
 PART NUMBER: HE83121
 PROJECT NAME: _____
 CODE NUMBER: HE83121-
 PRODUCTION NUMBER: _____ (by King Billion)

PRODUCTION INFORMATION:

Package Type: Package Form (_____) Chip Form
 Ink:
 Line one – _____
 Line two – _____
 Line three – _____
 Remark:

CODE INFORMATIN:

File Name: _____
 Check Sum: _____
 Object Code length: _____

DEVICE OPTION:

Operation Voltage: Two-Battery Three-Battery Other(_____)

Mask Options:

NAME	DESCRIPTION	Mask Option
MO_PORE	Internal Power On Reset	<input type="checkbox"/> Disable(0) <input type="checkbox"/> Enable(1)
MO_FCK MO_SCKN	Clock Mode Select	<input type="checkbox"/> Dual Clock (10) <input type="checkbox"/> Fast Only (11) <input type="checkbox"/> Slow Only (00)
MO_FXTAL	Osc. Type of Fast Clock	<input type="checkbox"/> RC(0) <input type="checkbox"/> X'tal(1)
MO_SXTAL	Osc. Type of Slow Clock	<input type="checkbox"/> RC(0) <input type="checkbox"/> X'tal(1)
MO_WDTE	Watch Dog Timer	<input type="checkbox"/> Disable(0) <input type="checkbox"/> Enable(1)
MO_FOSCE	Fast Clock Source Select	<input type="checkbox"/> Internal(0) <input type="checkbox"/> External(1)
MO_FRCS[2:0]	Internal Fast Clock Rate Select (If internal clock is selected.)	<input type="checkbox"/> ~ = 990KHz(000) <input type="checkbox"/> ~ = 1.1MHz(001) <input type="checkbox"/> ~ = 1.3MHz(010) <input type="checkbox"/> ~ = 1.6MHz(011) <input type="checkbox"/> ~ = 2MHz(100) <input type="checkbox"/> ~ = 2.6MHz(101) <input type="checkbox"/> ~ = 3.9MHz(110) <input type="checkbox"/> ~ = 6.5MHz(111)

MO_LCDBS[2.0]	LCD bias resistor	<input type="checkbox"/> R=30K(000) <input type="checkbox"/> R=60K(001) <input type="checkbox"/> R=90K(010) <input type="checkbox"/> R=120K(011) <input type="checkbox"/> R=210K(100) <input type="checkbox"/> R=240K(101) <input type="checkbox"/> R=270K(110) <input type="checkbox"/> R=300K(111)
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NAME	DESCRIPTION	Mask Option
MO_CPP[0]	Port C Bit 0 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull
MO_CPP[1]	Port C Bit 1 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull
MO_CPP[2]	Port C Bit 2 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull
MO_CPP[3]	Port C Bit 3 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull
MO_DPP[0]	Port D Bit 0 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull
MO_DPP[1]	Port D Bit 1 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull
MO_DPP[2]	Port D Bit 2 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull
MO_DPP[3]	Port D Bit 3 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull
MO_DPP[4]	Port D Bit 4 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull
MO_DPP[5]	Port D Bit 5 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull
MO_DPP[6]	Port D Bit 6 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull
MO_DPP[7]	Port D Bit 7 Configuration	<input type="checkbox"/> Open-drain <input type="checkbox"/> Push-pull

NOTE :針對超過 64KB 的母體時，必須要將 TP 的設定順序維持在 Update r_tpp, r_tph, r_tpl 的先後順序. 如此才能確保 Data ROM 的 pre-charge 會開始執行. 並且要在 pre-charge 開始到讀取資料之間，等待 5us. 以確保資料的正確性. 需要如此做的原因是因為在 ICE 上無法模擬到較低速的 Data ROM 所致

NOTE :對於使用 TP 自動加 1 的功能，因為在 C 版 ICE 無法模擬到此現象，因此使用者需小心使用，或是使用 V3.0 的 ICE 即可解決此問題。

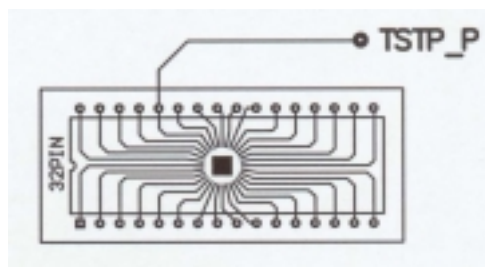
NOTE:

LCD driving circuit must be turn off before IC goes into sleep mode.

Please bonds the TSTP_P with test point on PCB (can be soldered and probed) as you can, then KB can do some IC testing job on PCB.

Neither VDD nor GND connection is necessary for TSTP_P.

The following figure is an example (Testing point with through hole).





DEVICE USAGE CHECK: (for double check purpose only)

Clock Mode:	<input type="checkbox"/> Dual	<input type="checkbox"/> Fast	<input type="checkbox"/> Slow	<input type="checkbox"/> Idle	<input type="checkbox"/> Sleep
Reset Usage:	<input type="checkbox"/> External	<input type="checkbox"/> Internal			
Watch Dog Timer Usage:	<input type="checkbox"/> WDT				
I/O Usage:	<u> </u> Input	<u> </u> Output	<u> </u> Bidirectional		
RAM Usage:	Total <u> </u> Byte is used.				
ROM Usage:	Total <u> </u> KB is used, <u> </u> KB is utilized as program ROM.				
Timer Usage:	<input type="checkbox"/> Timer I	<input type="checkbox"/> Timer II			
LCD Usage:	<u> </u> COM,	<u> </u> SEG			
Speech Usage:	<input type="checkbox"/> PWM Output	<input type="checkbox"/> D/A Output			
OPAMP Usage:	<input type="checkbox"/> As Comparator	<input type="checkbox"/> As OPAMP			

APPROVED BY: ICE ROMLESS DEMOBOARD OTHER()

COMMENT:

CUSTOMER APPROVAL BY:

SIGNATURE:
PRINTED NAME:
TITLE:

K.B. CONFIRMATION BY:

SIGNATURE:
PRINTED NAME:
TITLE: