

<b>FDI</b>	<b>ENGINEERING CHANGE ORDER</b>		<b>ECO NO: 12-109</b>
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<b>TITLE</b>	<b>DWG NO.</b>	<b>CURRENT REV</b>	<b>NEW REV</b>
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**BACKGROUND:**

- Incorporate previous rework ECO into artwork, ECO # 12-006
- Update LPC1788 symbol and add new USB2\_ID signal
- Change USB circuit to enable switching between host/device
- Change LCD to LQ043T1DG28
- Correct R46 <> R47 silkscreen label swap
- Change several resistor packages to utilize common package

**DESCRIPTION OF CHANGE:**

1. Update LPC1788 symbol pin descriptions and add new USB2\_ID signal (shown at black arrow)



Reason for change: 1. Update LPC1788 symbol and add new USB2_ID signal 2. Change USB circuit to enable switching between host/device 3. Change LCD to LQ043T1DG28.		<b>Disposition/Affectivity</b>	
		Use as is	x
		Rework to ECO	
		Scrap & Rebuild	
		Record Change Only	x
Prepared by:	BF	Date:	06/20/2012
Approved by:		Date:	
Approved by:		Date:	
Approved by:		Date:	

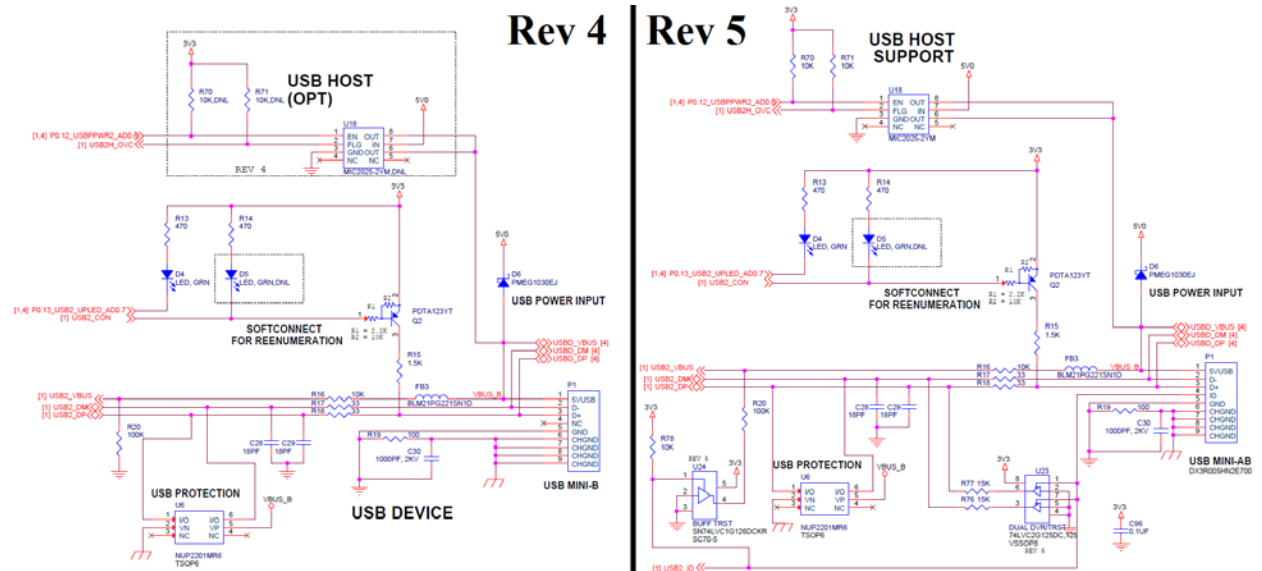
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2. Change the USB circuit to enable switching between host/device

The new USB2\_ID signal is used here.

These parts were changed or added here:

Part/Ref	Rev 4	Rev 5		Notes
	Package	Value/Part #	Packages	
R70	SMD	10K	SMD	DNL changed to Load
R71	SMD	10K	SMD	DNL changed to Load
U18	SMD	MIC2025-2YM	SMD	DNL changed to Load
P1 USB	MINI-B	DX3R005HN2E700	MINI-AB	Changed USB to MINI-AB with new ID pin
U23	NA	74LVC2G125DC	VSSOP8	Connected to USB2_DP/M, ID, USB2_ID
R77	NA	15k	SMD	Connected between U23 and USB2_DP
R76	NA	15k	SMD	Connected between U23 and USB2_DM
C96	NA	0.1uF	SMD	Filter cap between 3.3V and GND
U24	NA	SN74LVC1G126DCKR	SC70-5	Connected between R20 and USB2_ID (R20 no longer connected to GND)
R78	NA	10K	SMD	Connected between 3.3V and USB2_ID



Reason for change:		Disposition/Affectivity	
1. Update LPC1788 symbol and add new USB2_ID signal		Use as is	x
2. Change USB circuit to enable switching between host/device		Rework to ECO	
3. Change LCD to LQ043T1DG28.		Scrap & Rebuild	
		Record Change Only	x
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- Change the LCD to LQ043T1DG28. Note that P1.31\_SCK1\_AD0.5 is now also connected to the LCD in addition to the expansion connector. This signal is required to bring the LCD in/out of sleep mode and program it.

These parts were changed or added here:

Part/Ref	Rev 4		Rev 5		Notes
	Value	Package	Value/Part #	Packages	
C1	2.2uF 25V	805	2.2uF 25V	603	
C2	0.22uF		1uF 6.3V	402	
C3	0.22uF		1uF 6.3V	402	
C4	2.2uF		2.2uF 25V	603	
C5	0.22uF		1uF 6.3V	402	
C6	2.2uF		4.7uF 10V	603	
C7	0.22uF		1uF 6.3V	402	
C8	2.2uF		2.2uF 6.3V	402	
C9	2.2uF		4.7uF 6.3V	603	
C10	0.22uF		1uF 10V	603	
C11	2.2uF		2.2uF 6.3V	603	
C12	2.2uF		2.2uF 6.3V	603	
C19	2.2uF		4.7uF 10V	603	
C20	2.2uF		4.7uF 10V	603	
C21	2.2uF		4.7uF 6.3V	603	
C81	NA		1uF 10V	603	LCD Pins 66 and 67
C82	NA		2.2uF 6.3V	402	LCD Pin 60 to GND
D11	NA		ZHCS400	SOD323	LCD Pins 8 and 14
D12	NA		ZHCS400	SOD323	LCD Pins 9 and 18
D13	NA		ZHCS400	SOD323	LCD Pins 18 and 21
R75	NA		10k	402	Pull up at P1[31] to LCD SHUT (Pin 33)

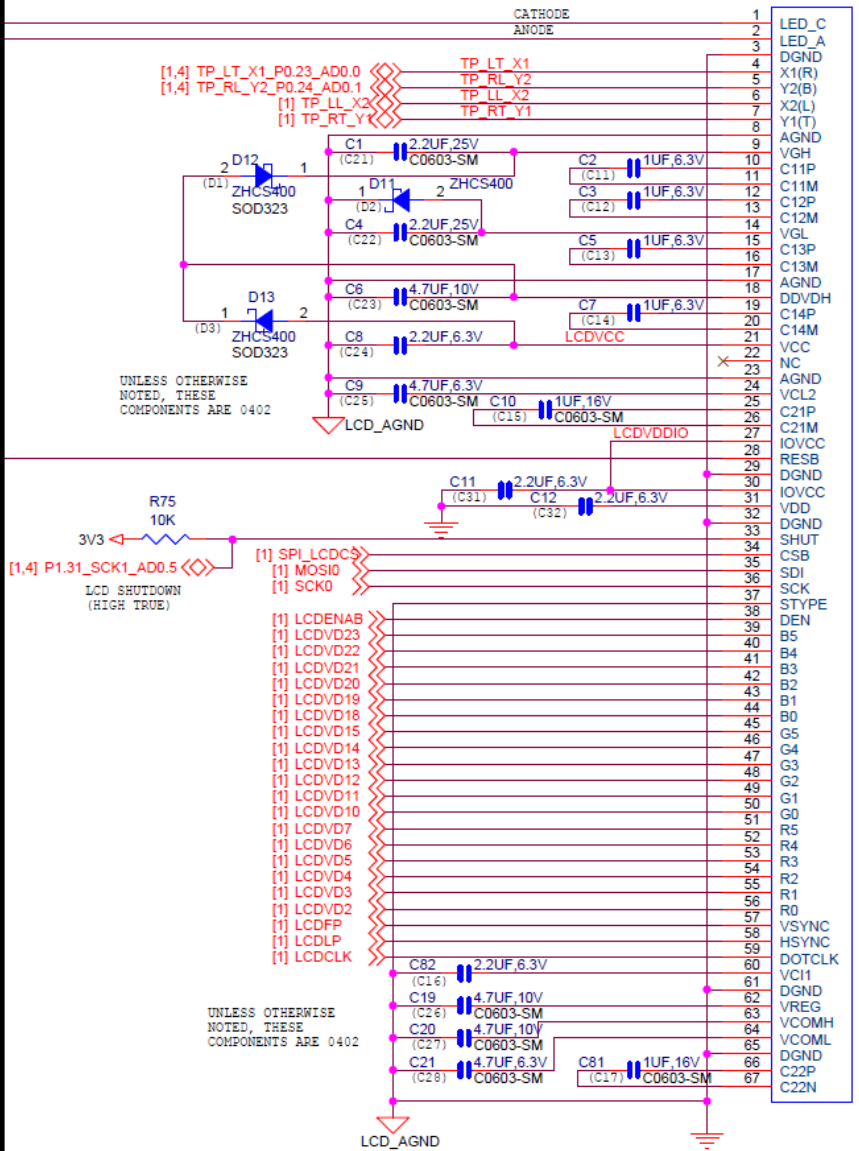
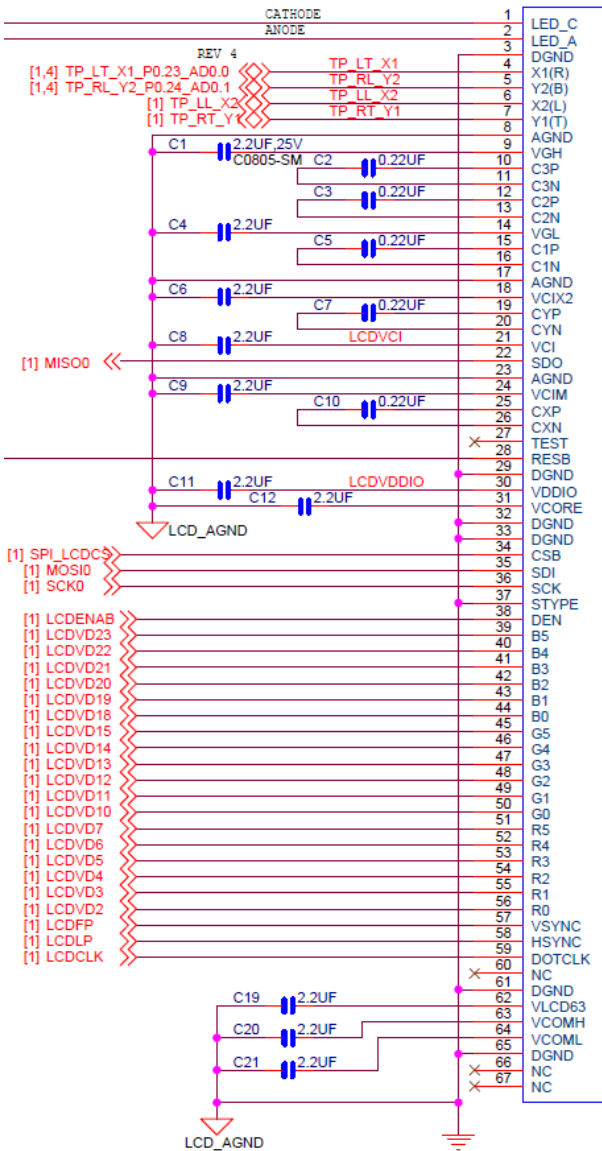
Reason for change: 1. Update LPC1788 symbol and add new USB2_ID signal 2. Change USB circuit to enable switching between host/device 3. Change LCD to LQ043T1DG28.		Disposition/Affectivity	
		Use as is	x
		Rework to ECO	
		Scrap & Rebuild	
		Record Change Only	x
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**Rev 4**

**Rev 5**

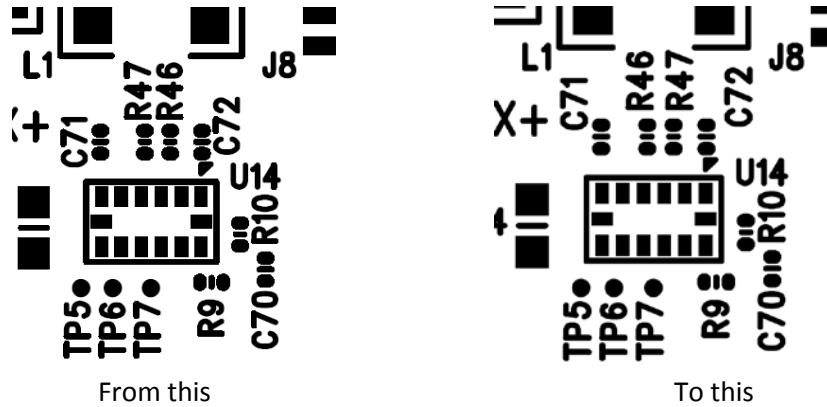
**LQ043T1DG28**



Reason for change:		Disposition/Affectivity	
1. Update LPC1788 symbol and add new USB2_ID signal		Use as is	x
2. Change USB circuit to enable switching between host/device		Rework to ECO	
3. Change LCD to LQ043T1DG28.		Scrap & Rebuild	
		Record Change Only	x
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4. Swap R46 <> R47 silkscreen labels to correctly associate them with the component locations



5. Change R3, R21, R33, R70, & R71 to 0402 package common to already utilized parts.

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