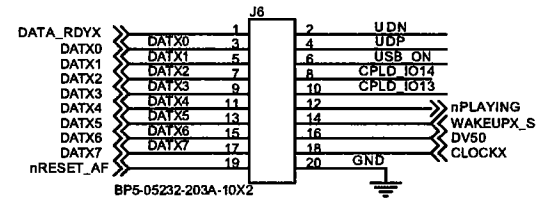
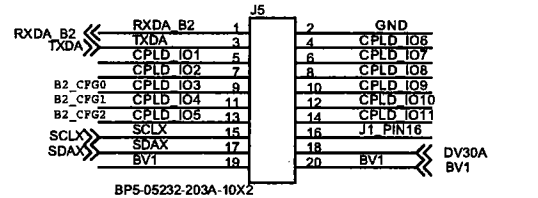
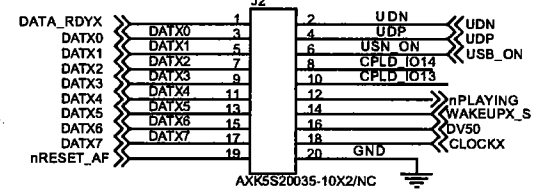
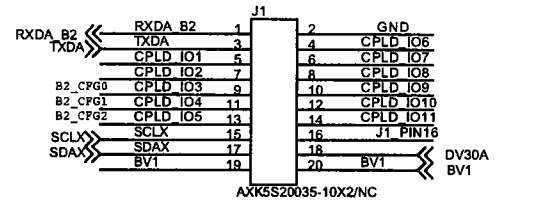
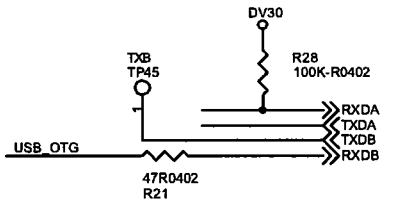
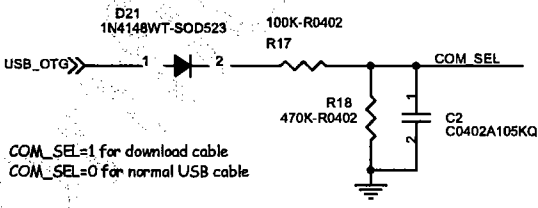
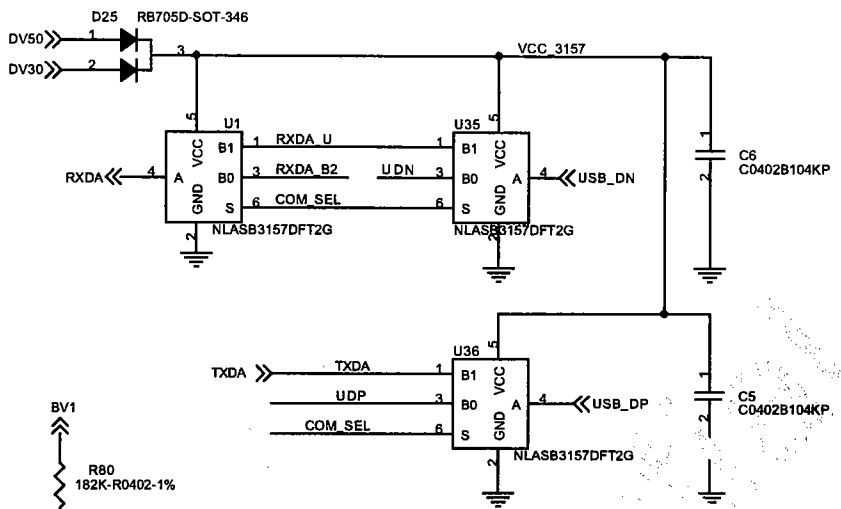
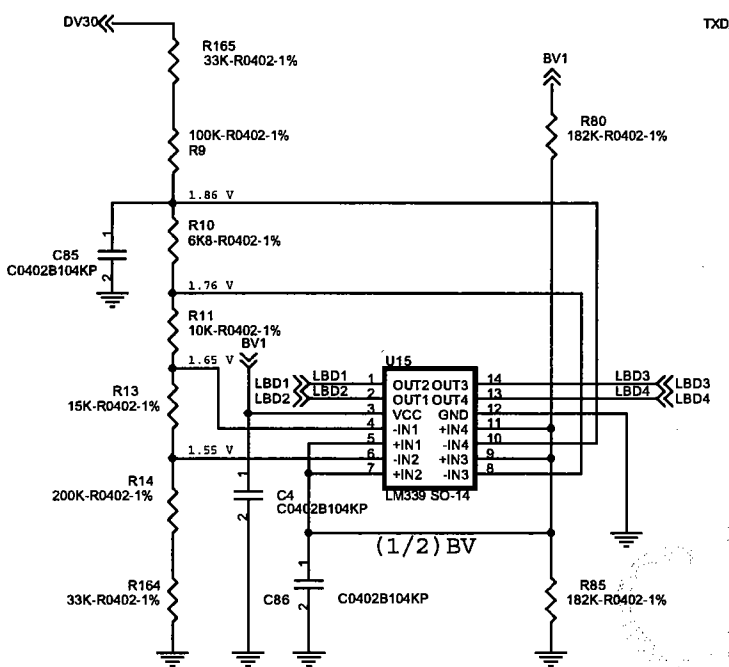


50 Ohm RF trace, width 15 mil

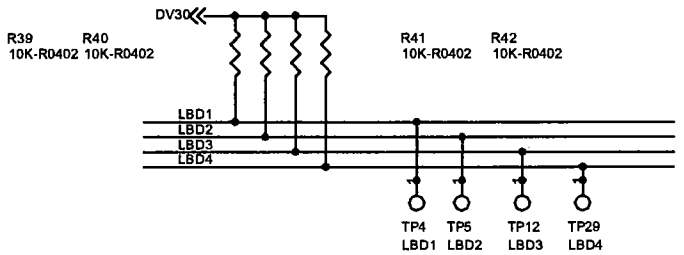
長天科技股份有限公司 **HOLUX**  
 產品名稱: GM-120 掌上型藍芽 GPS  
 型號: GM-120B

Title Patch ANT circuit		
Size A	Document Number <Doc>	Rev A
Date: Wednesday, November 23, 2005	Sheet 1	of 1

CPLD\_IO1 <math>\rightarrow</math> CPLD IO1 IO1:MS\_SCK  
 CPLD\_IO2 <math>\rightarrow</math> CPLD IO2 IO2:BOOT\_SEL  
 CPLD\_IO3 <math>\rightarrow</math> CPLD IO3 IO3,IO4,IO5: board configuration  
 CPLD\_IO4 <math>\rightarrow</math> CPLD IO4 IO6: battery CFLG  
 CPLD\_IO5 <math>\rightarrow</math> CPLD IO5 IO7:MS\_RST  
 CPLD\_IO6 <math>\rightarrow</math> CPLD IO6 IO8: MS\_READY(compass)  
 CPLD\_IO7 <math>\rightarrow</math> CPLD IO7 IO9: B2 power control  
 CPLD\_IO8 <math>\rightarrow</math> CPLD IO8 IO10:MS\_SDO  
 CPLD\_IO9 <math>\rightarrow</math> CPLD IO9 IO11: MS\_SDI  
 CPLD\_IO10 <math>\rightarrow</math> CPLD IO10  
 CPLD\_IO11 <math>\rightarrow</math> CPLD IO11  
 CPLD\_IO13 <math>\rightarrow</math> CPLD IO13 IO13:MS\_nCE  
 CPLD\_IO14 <math>\rightarrow</math> CPLD IO14 IO14:BT\_SLEEP

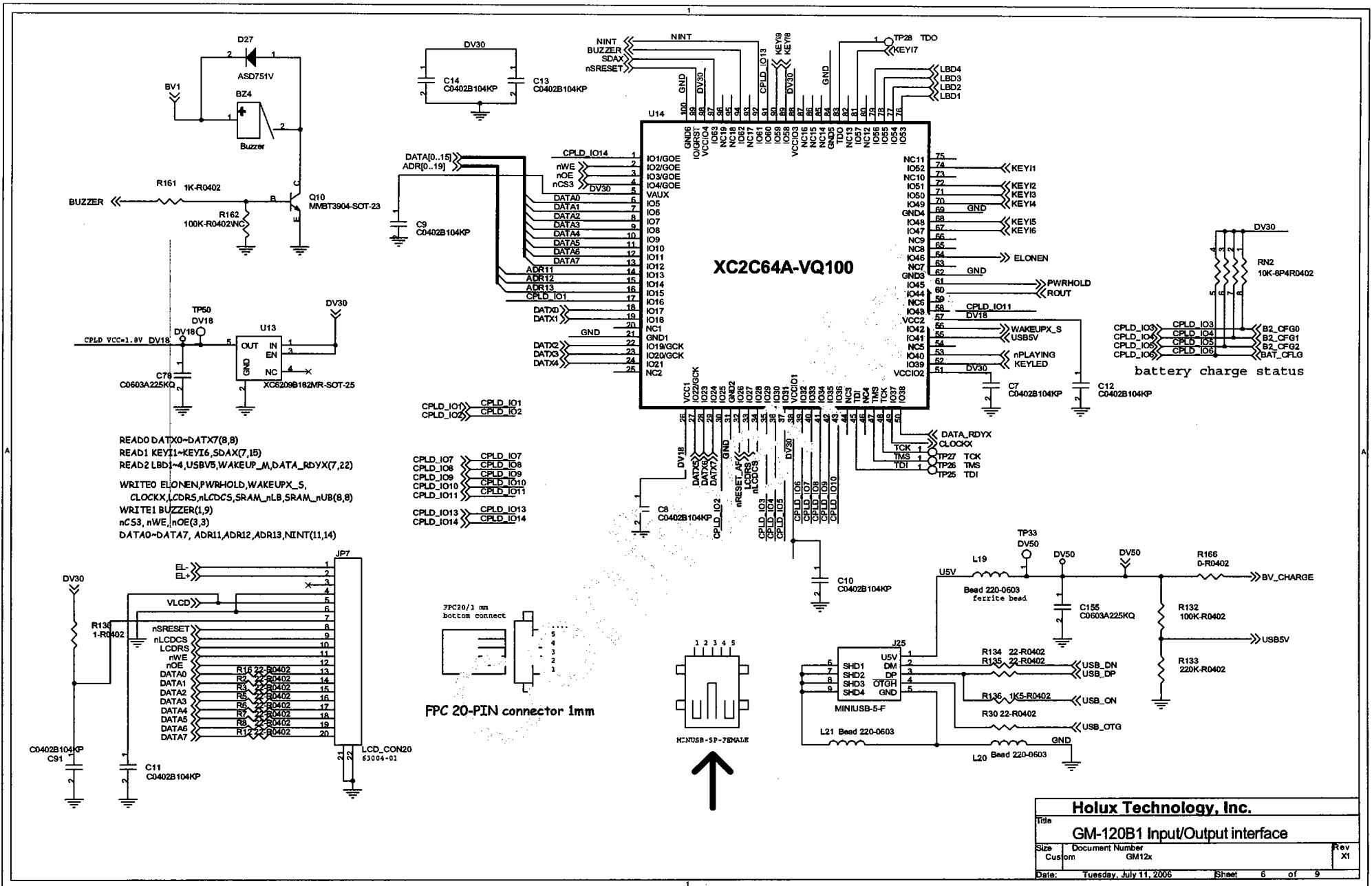


no board: CFG = 111  
 B2A: CFG = 001  
 B2B: CFG = 010  
 B2C: CFG = 100  
 B2D: CFG = 101



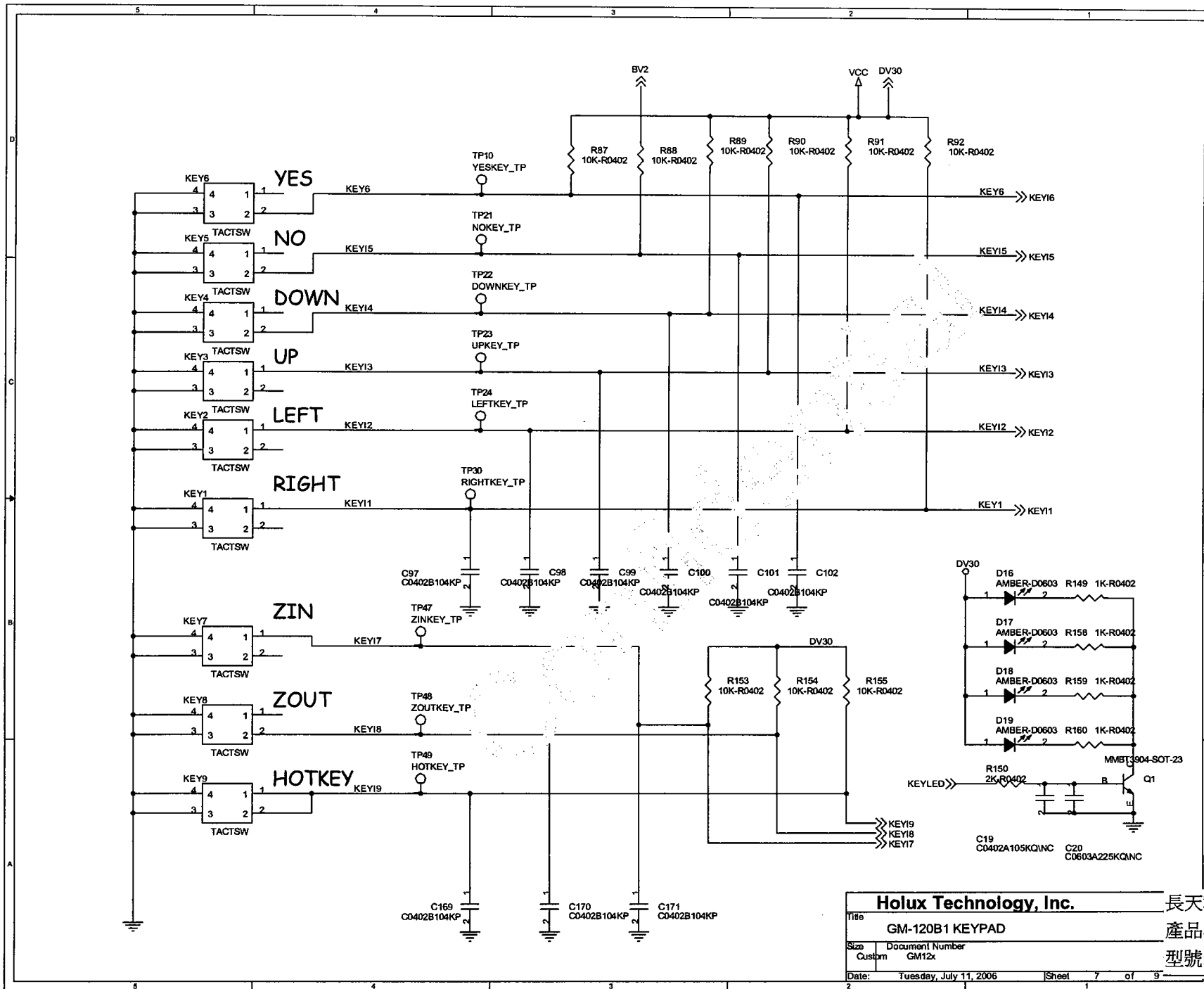
長天科技股份有限公司 HOLUX  
 產品名稱: GM-120 掌上型藍芽 GPS  
 型號: GM-120B

Holux Technology, Inc.		
File GM-120B1, Board to Board connector		
Size Custom	Document Number GM120 B1	Rev A
Date: Tuesday, July 04, 2006	Sheet 5	of 9

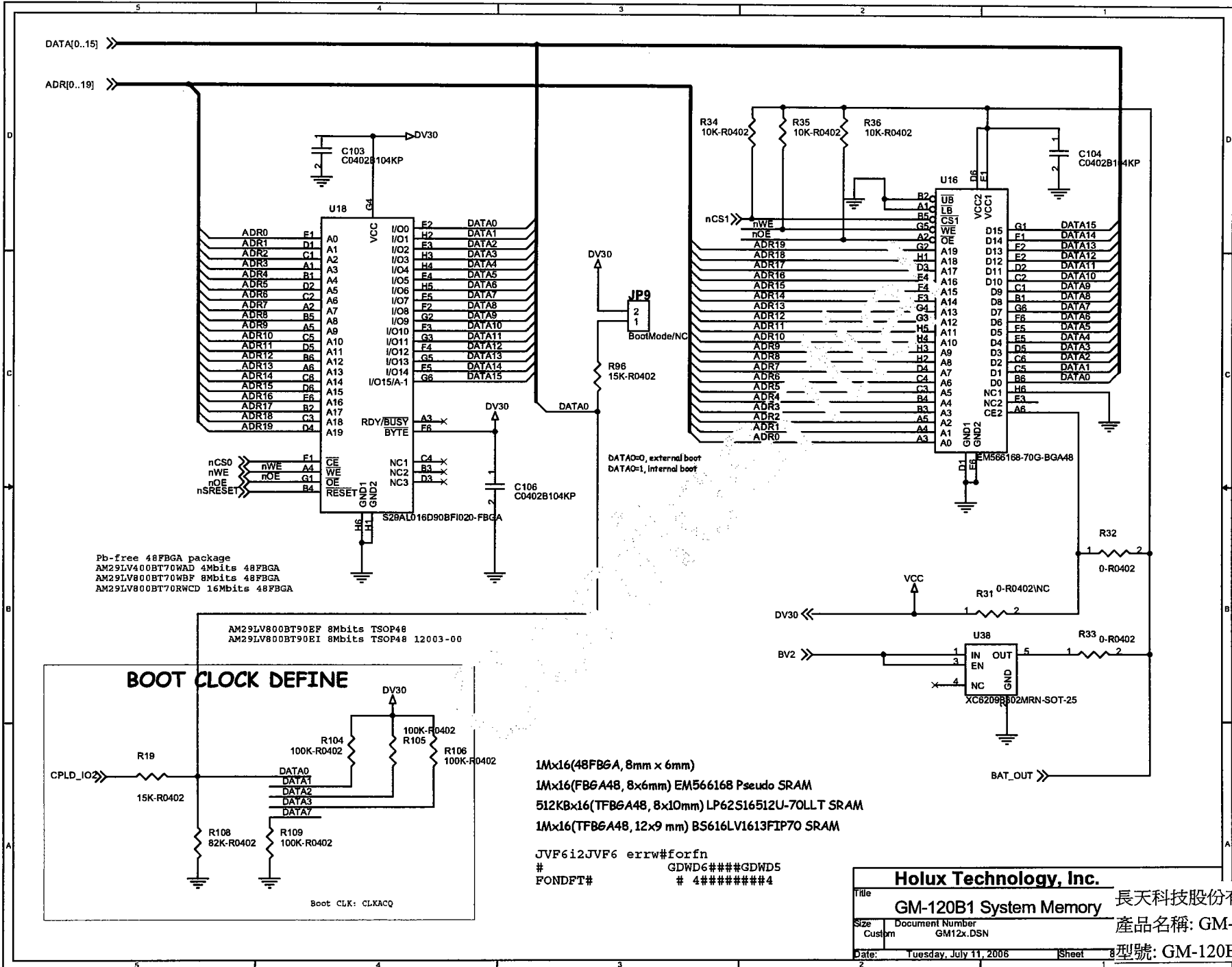


<b>Holux Technology, Inc.</b>		
Title	<b>GM-120B1 Input/Output interface</b>	
Size	Document Number	Rev
Custom	GM12x	X1
Date:	Tuesday, July 11, 2006	Sheet 6 of 9

長天科技股份有限公司 **HOLUX**  
 產品名稱: GM-120 掌上型藍芽 GPS  
 型號: GM-120B



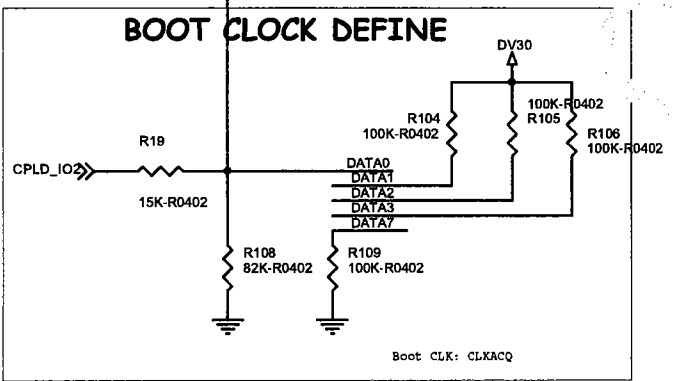
<b>Holux Technology, Inc.</b>		長天科技股份有限公司 <b>HOLUX</b>
T18a		產品名稱: GM-120 掌上型藍芽 GPS
GM-120B1 KEYPAD		型號: GM-120B
Size	Document Number	
Custom	GM12x	
Date:	Tuesday, July 11, 2006	Sheet 7 of 9



Pb-free 48FBGA package  
 AM29LV400BT70WWD 4Mbits 48FBGA  
 AM29LV800BT70WBF 8Mbits 48FBGA  
 AM29LV800BT70RWCD 16Mbits 48FBGA

AM29LV800BT90EF 8Mbits TSOP48  
 AM29LV800BT90EI 8Mbits TSOP48 12003-00

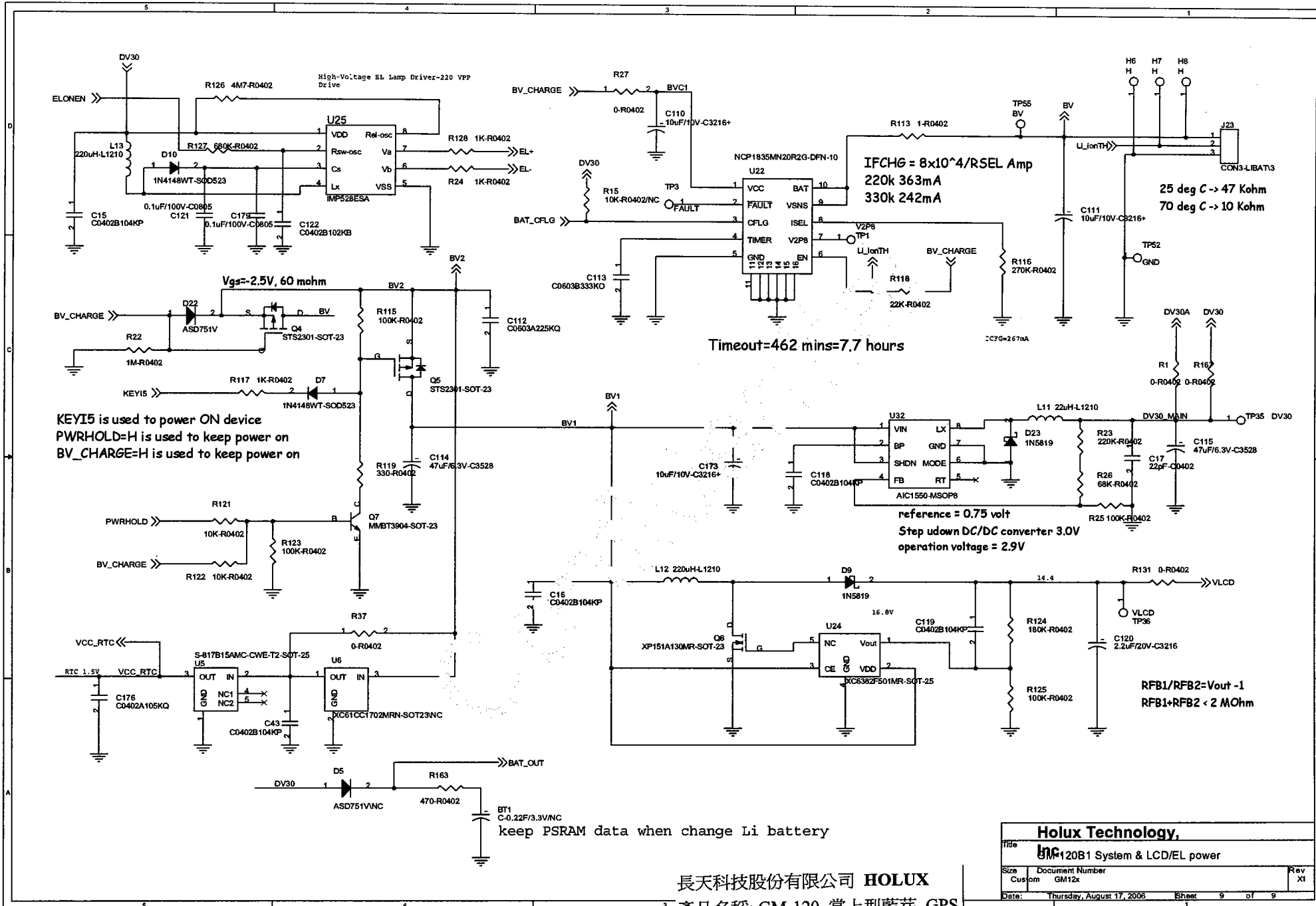
**BOOT CLOCK DEFINE**



- 1Mx16(48FBGA, 8mm x 6mm)
- 1Mx16(FBGA48, 8x6mm) EM566168 Pseudo SRAM
- 512KBx16(TFBGA48, 8x10mm) LP62S16512U-70LLT SRAM
- 1Mx16(TFBGA48, 12x9 mm) BS616LV1613FIP70 SRAM

JVF6i2JVF6 errw#forfn  
 # GDWD6#####GDWD5  
 FONDF# # 4#####4

Title		GM-120B1 System Memory		長天科技股份有限公司 HOLUX	
Size	Document Number	產品名稱: GM-120 掌上型藍芽 GPS			
Custom	GM12x.DSN	型號: GM-120B			
Date:	Tuesday, July 11, 2006	Sheet			



KEYI5 is used to power ON device  
 PWRHOLD=H is used to keep power on  
 BV\_CHARGE=H is used to keep power on

Timeout=462 mins=7.7 hours

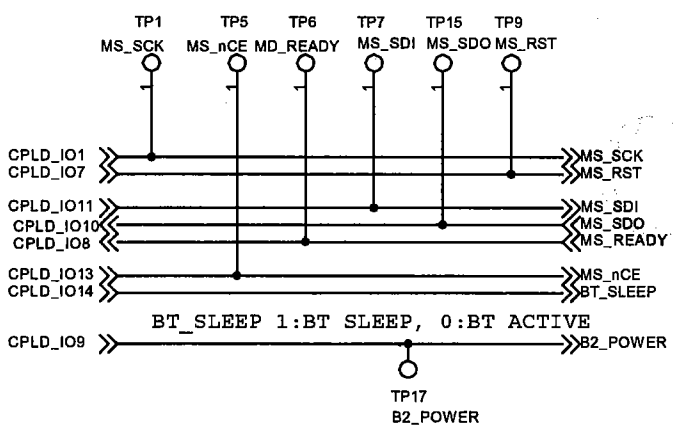
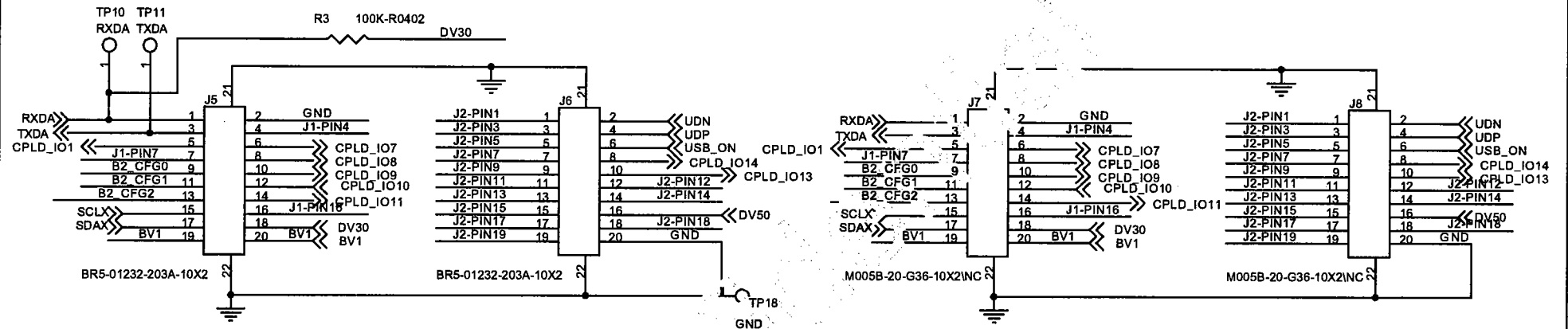
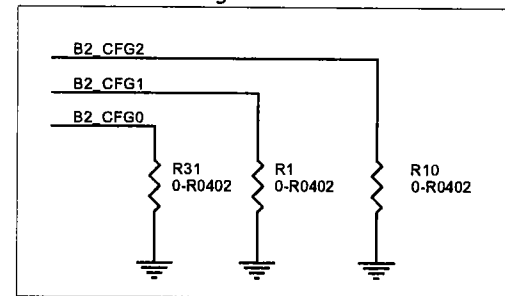
reference = 0.75 volt  
 Step updown DC/DC converter 3.0V  
 operation voltage = 2.9V

RFB1/RFB2= Vout -1  
 RFB1+RFB2 < 2 MOhm

長天科技股份有限公司 **HOLUX**  
 產品名稱: GM-120 掌上型藍芽 GPS  
 型號: GM-120B

<b>Holux Technology,</b>			
File: GM120B1 System & LCD/EL power			
Size: Custom	Document Number: GM12x	Rev: XI	
Date: Thursday, August 17, 2006	Sheet: 9	of 9	

Board 2 Configuration

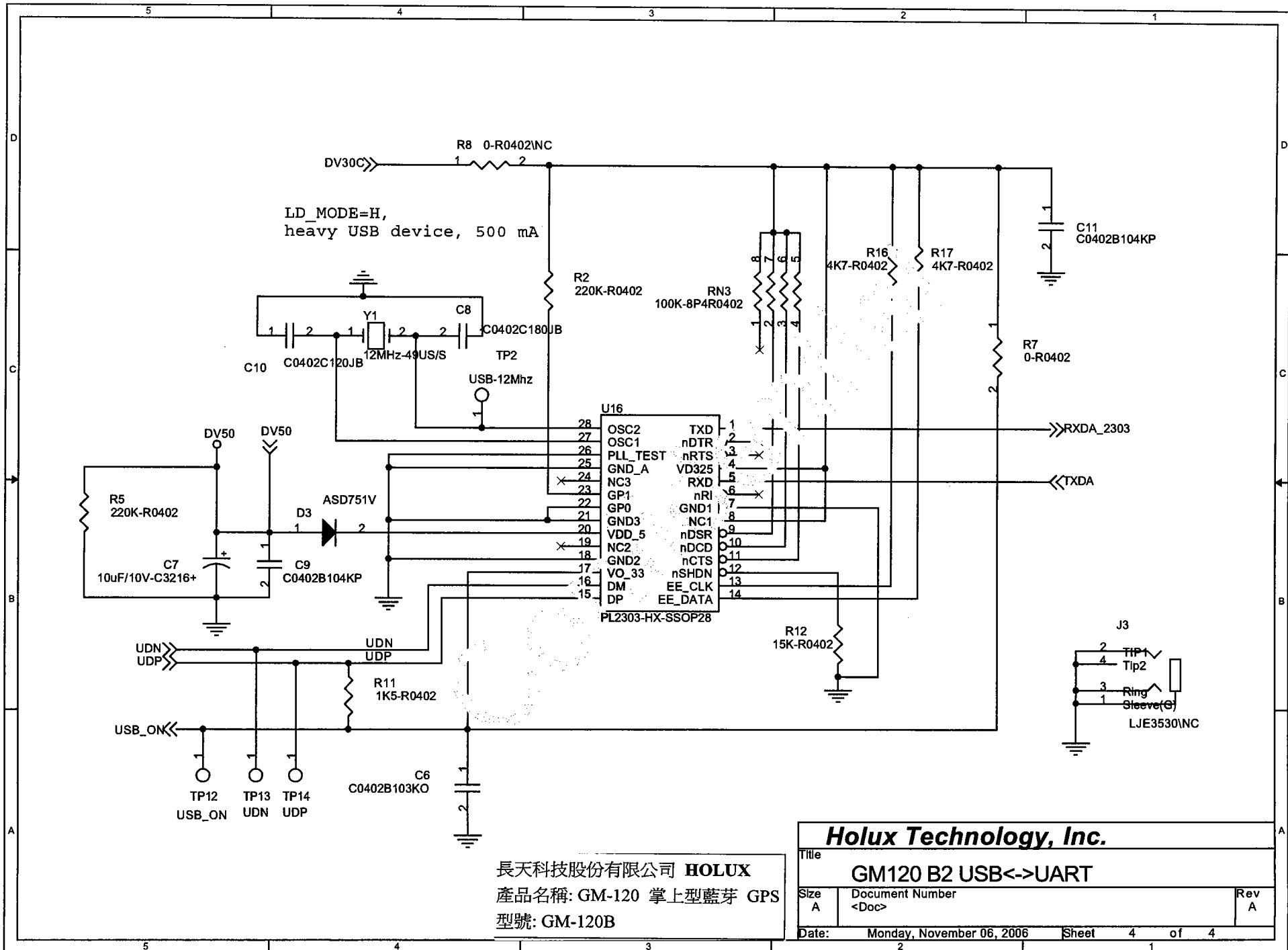


- IO1:MS\_SCK
- IO2:BOOT\_SEL
- IO3,IO4,IO5: board configuration
- IO6: battery CPL6
- IO7:MS\_RST
- IO8: MS\_READY(compass)
- IO9: B2 power control
- IO10:MS\_SDO
- IO11: MS\_SDI
- IO13:MS\_nCE
- IO14:BT\_SLEEP

no board: CFG = 111  
 B2A: CFG = 001,R31:NC  
 B2B: CFG = 010, R1:NC  
 B2C: CFG = 100  
 B2D: CFG = 101

長天科技股份有限公司 **HOLUX**  
 產品名稱: GM-120 掌上型藍芽 GPS  
 型號: GM-120B

<b>Holux</b>		
Technology, Inc.		
B2B connector		
Title	Document Number	Rev
Size	Custom<Doc>	<Rev C>dr
Date:	Monday, November 06, 2006	Sheet 1 of 1



長天科技股份有限公司 **HOLUX**  
 產品名稱: GM-120 掌上型藍芽 GPS  
 型號: GM-120B

<b>Holux Technology, Inc.</b>		
Title: <b>GM120 B2 USB&lt;-&gt;UART</b>		
Size: A	Document Number: <Doc>	Rev: A
Date: Monday, November 06, 2006	Sheet: 4	of 4