

LPC MIO-E Design Reference

Revision 1.0

Reference Documents

Document	Location

Introduction

- This document is the design reference for designing a MIOe module with LPC feature to work with Advantech MIO single board.

- Contents:
 - Function Selection Table
 - PCB Layout Considerations
 - Reference Schematic
 - Component List

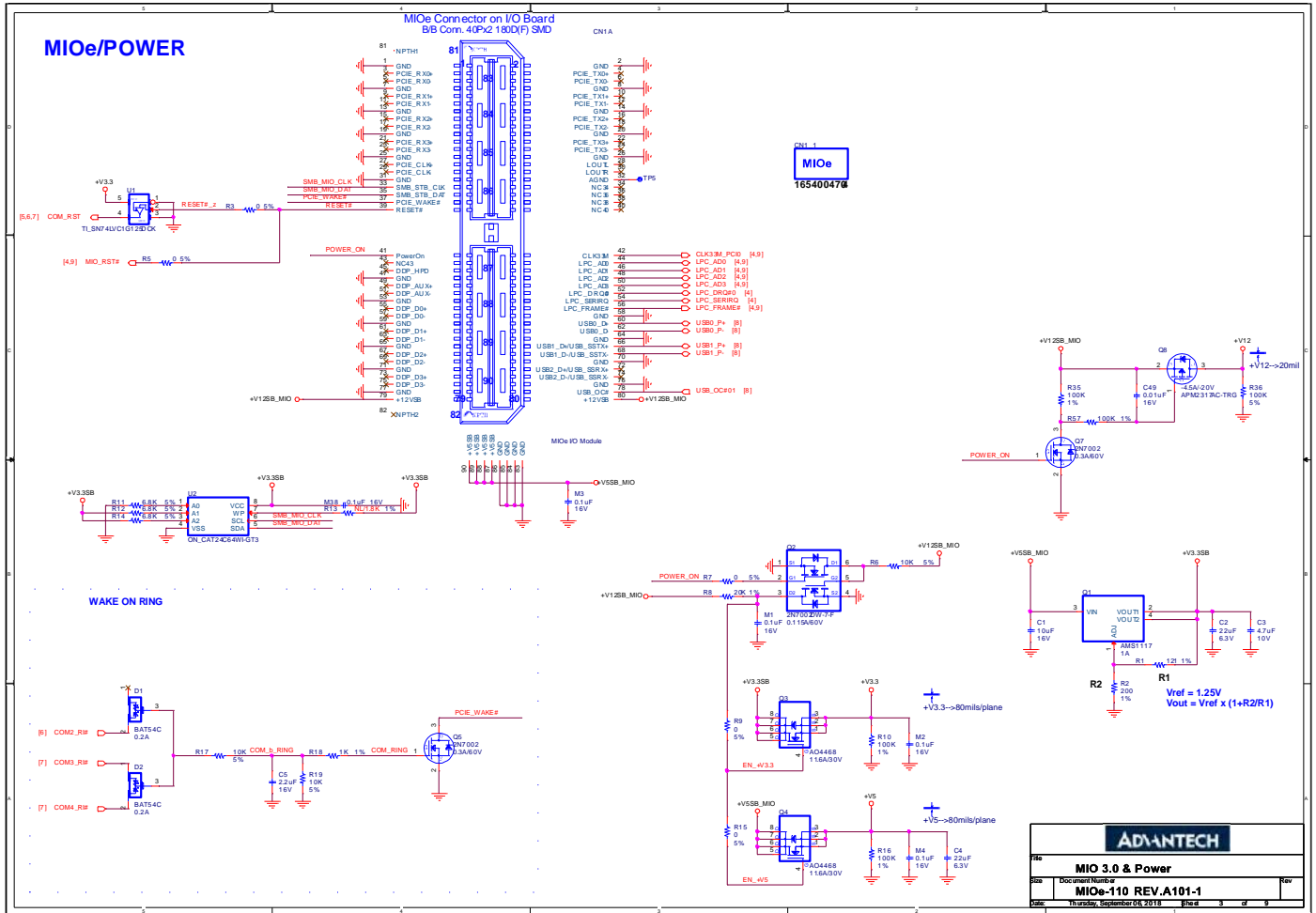
This document is only for MIOe design reference purpose only. Although the information is intended to be accurate, Advantech makes no claims, promises, or guarantees about the quality or reliability of a MIOe board that designed by any user who is outside of Advantech Corp.

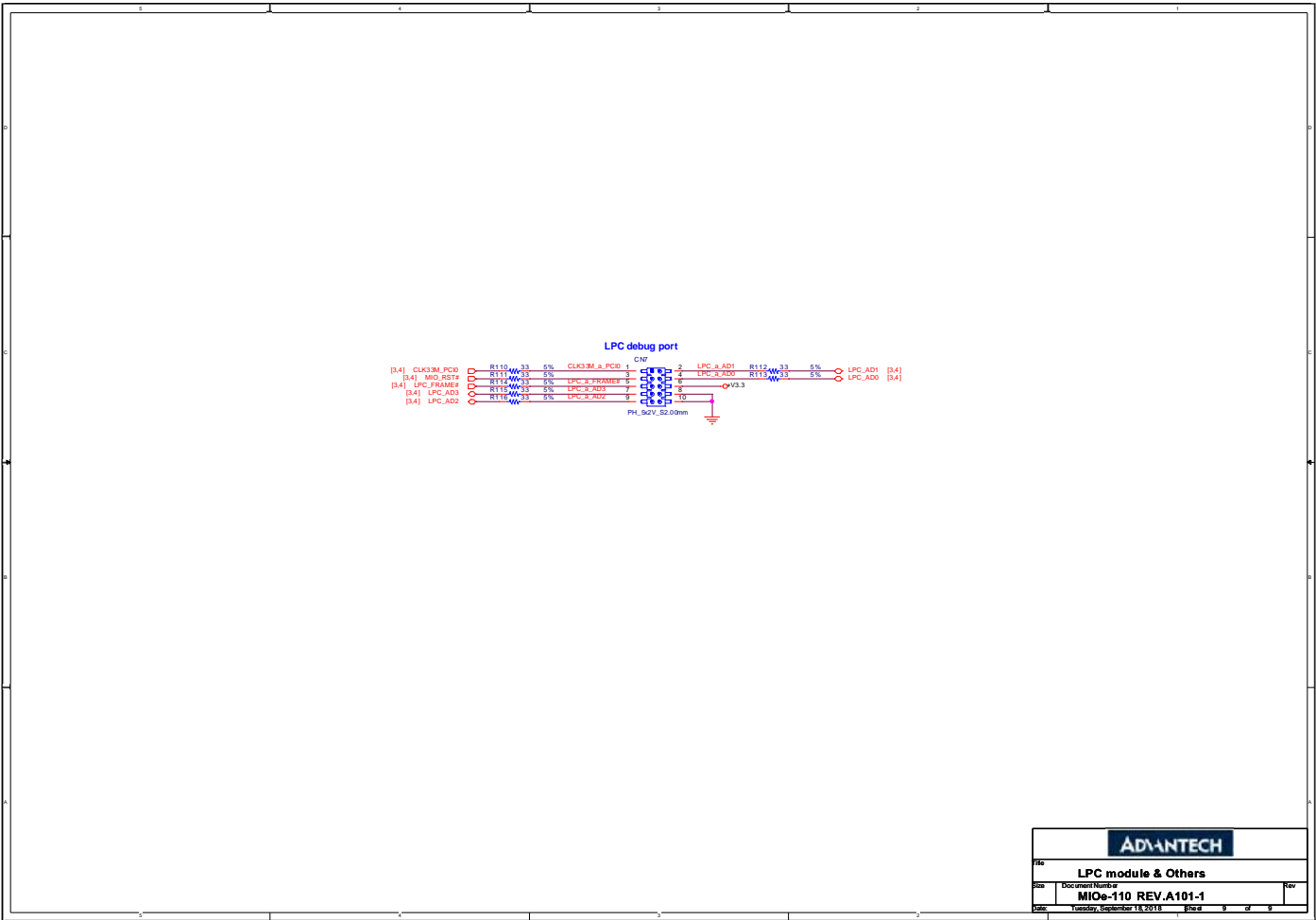
FUNCTION SELECTION TABLE

PCB Layout Considerations

Please notice that PCB Layout will be vary depends on design. For layout considerations, please refer to MIOe Design Guide.

Reference Schematic





Component List

QTY	Description	Reference	Manufacture_Part_Number	Manufacture
1	CR 20K 1% 1/16W SMD 0402	R8	0402WGF2002TCE	厚聲電子工業有限公司 (Uniroyal Electronics Industry Co.,Ltd.)
1	CR 1.8K 1% 1/16W SMD 0402	R13	0402WGF1801TCE	厚聲電子工業有限公司 (Uniroyal Electronics Industry Co.,Ltd.)
2	MLCC X5R 22uF 20% 6.3V SMD 0805	C2	0805X226M6R3CT	台灣村田股份有限公司 (Taiwan Murata Electronics Co., Ltd.)
		C4		
5	MLCC X7R 0.1uF 10% 16V SMD 0402	M1	0402B104K160CT	國巨股份有限公司 (Yageo Co.,Ltd.)
		M2		
		M3		
		M4		
		M38		
1	MLCC X7R 0.01uF 10% 16V SMD 0402	C49	0402B103K160CT	國巨股份有限公司(Yageo Co.,Ltd.)
1	MLCC X7R 2.2uF 10% 16V SMD 0805	C5	0805B225K160CT	台灣東電化股份有限公司 (TDK Taiwan Corporation)
1	MLCC X7R 10uF 10% 16V SMD 1206	C1	C1206X106K016T	台灣東電化股份有限公司 (TDK Taiwan Corporation)
1	MLCC Y5V 4.7uF +80%-20% 10V SMD 0805	C3	C0805Y475Z010T	台灣太陽誘電(股)公司 (Taiwan Taiyo Yuden Co., Ltd.)
1	CR 1K 1% 1/16W SMD 0402	R18	0402WGF1001TCE	厚聲電子工業有限公司 (Uniroyal Electronics Industry Co.,Ltd.)
4	CR 100K 1% 1/16W SMD 0402	R10	0402WGF1003TCE	厚聲電子工業有限公司 (Uniroyal Electronics Industry Co.,Ltd.)
		R16		
		R35		
		R57		
1	CR 121 1% 1/10W SMD 0603	R1	0603WAF1210T5E	厚聲電子工業有限公司 (Uniroyal Electronics Industry Co.,Ltd.)
1	CR 200 1% 1/10W SMD 0603	R2	0603WAF2000T5E	厚聲電子工業有限公司 (Uniroyal Electronics Industry Co.,Ltd.)
3	CR 10K 5% 1/16W SMD 0402	R6	0402WGJ0103TCE	厚聲電子工業有限公司 (Uniroyal Electronics Industry Co.,Ltd.)
		R17		
		R19		

5	CR 0 5% 1/16W SMD 0402	R3	0402WGJ0000TCE	厚聲電子工業有限公司 (Uniroyal Electronics Industry Co.,Ltd.)
		R5		
		R7		
		R9		
		R15		
1	CR 100K 5% 1/16W SMD 0402	R36	0402WGJ0104TCE	厚聲電子工業有限公司 (Uniroyal Electronics Industry Co.,Ltd.)
7	CR 33 5% 1/16W SMD 0402	R110	0402WGJ0330TCE	厚聲電子工業有限公司 (Uniroyal Electronics Industry Co.,Ltd.)
		R111		
		R112		
		R113		
		R114		
		R115		
		R116		
3	CR 6.8K 5% 1/16W SMD 0402	R11	0402WGJ0682TCE	厚聲電子工業有限公司 (Uniroyal Electronics Industry Co.,Ltd.)
		R12		
		R14		
1	REG LDO AMS1117 SMD SOT-223 3P 1A ADJ AMS	Q1	AMS1117	Advanced Monolithic System Inc.
2	Schottky BAT54C 0.2A 30V SMD SOT-23	D1	BAT54C	恩智浦半導體 (NXP Semiconductors)
		D2		
2	MOSFET N-CH AO4468 11.6A 30V SMD SOIC8 8P	Q3	AO4468	香港商萬國半導體股份有限公司 (Alpha & Omega Semiconductor, Ltd.)
		Q4		
2	MOSFET N-CH 2N7002 0.3A 60V SMD SOT-23 3P	Q5	2N7002	恩智浦半導體 (NXP Semiconductors)
		Q7		
1	MOSFET P-CH APM2317AC-TRG -20V -4.5A SMD SOT-23	Q8	APM2317AC-TRG	大中積體電路股份有限公司 (Sinopower Semiconductor Inc.)
1	MOSFET N-CH 2N7002DW-7-F 0.115A 60V SMT SOT-363	Q2	2N7002DW-7-F	Diodes Inc.
1	IC SN74LVC1G125DCKR SMD SC-70 5P	U1	SN74LVC1G125DCKJ	德州儀器工業股份有限公司 (Texas Instruments Incorporated)
1	IC CAT24C64WI-GT3 EEPROM SMD SOIC 8P	U2	CAT24C64WI-GT3	安森美半導體 (On Semiconductor)
1	PIN HEADER 5x2P 2.0mm 180D(M) SMD 21N22050	CN7	21N22050-10M00B -01G-4-C	致威電子公司 (Jih Vei Electronics Co., Ltd.)
1	MIOE Connector	CN1	QTE-040-05-L-D-A	Samtec U.S.A.

Other Remarks

This document provides a reference on hardware design only. For other support or resource such as Firmware or other utilities, please contact your local agent.