

Model Name: PANDA(MTQ45MK-LE)

SHEET TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	LGA775_A
04	LGA775_B
05	LGA775_C
06	LGA775_D
07	GMCH-HOST,PCIE,DMI
08	GMCH-DDRIII
09	GMCH-VGA,MISC
10	GMCH-GND
11	GMCH-POWER
12	DDRIII CHANNEL A
13	DDRIII CHANNEL B
14	DDRIII TERMINATION
15	SWITCH&DVI
16	PCIE SLOT X16,X1
17	ICH10-PCI,PCIE,USB,DMI
18	ICH10-HOST,HDA,LAN,RTC,SPI,LPC,SATA
19	ICH10-POWER,GND
20	PCI SLOT
21	CKG IDT CV184
22	SIO SCH5617, TH, FDD
23	COM, KB/MS, LPT
24	WPCT200AA, ST19WP18
25	FRONT PANEL,BUZZER
26	FRONT USB & REAL USB
27	FAN CONTROL

Revision 1.0

SHEET TITLE

28	DISCRETE POWER 1
29	DISCRETE POWER 2
30	VCORE PWM_NCP5392
31	AUDIO CODEC
32	AUDIO JACK
33	ATX,SPI(BIOS),MECH HOLD
34	INTEL 82567LM/LF
35	NB&SB for GPIO LIST & STRAP
36	Other GPIO LIST & STRAP
37	POWER DELIVERY
38	POWER SEQUENCE
39	BOM & PCB MODIFY HISTORY
40	
41	
42	

Example Fab Drawing Note

Trace Width (mils)	Differential Spacing (mils)	Impedance	Tolerance
4	NA	50 ohm, single-ended	15%
6.5	NA	40 ohm, single-ended	15%
7.5	NA	37 ohm, single-ended	15%
9.5	NA	32 ohm, single-ended	15%
4	8	95 ohm, differential	20%, reference only
4.5	7.5	90 ohm, differential	20%, reference only
5	5	85 ohm, differential	

BEARLAKE Impedance Requirements by Interface

Interface	Impedance Required
FSB(ALL)	4x signals 42Ω others 50Ω, single-ended
Controller Link	50 ohm, single-ended
PCI Express*2.0	85 ohm, single-ended
DMI	95 ohm, differential
VGA	37 ohm, single-ended at (G)MCH breakout, then 50 ohm single-ended to VGA connector.

ICH10 Impedance Requirements by Interface

Interface	Impedance Required
PCI	50 ohm, single-ended
Controller Link	50 ohm, single-ended
Miscellaneous	50 ohm, single-ended
PCIE & DMI	95 ohm, differential
SATA	95 ohm, differential
USB	90 ohm, differential

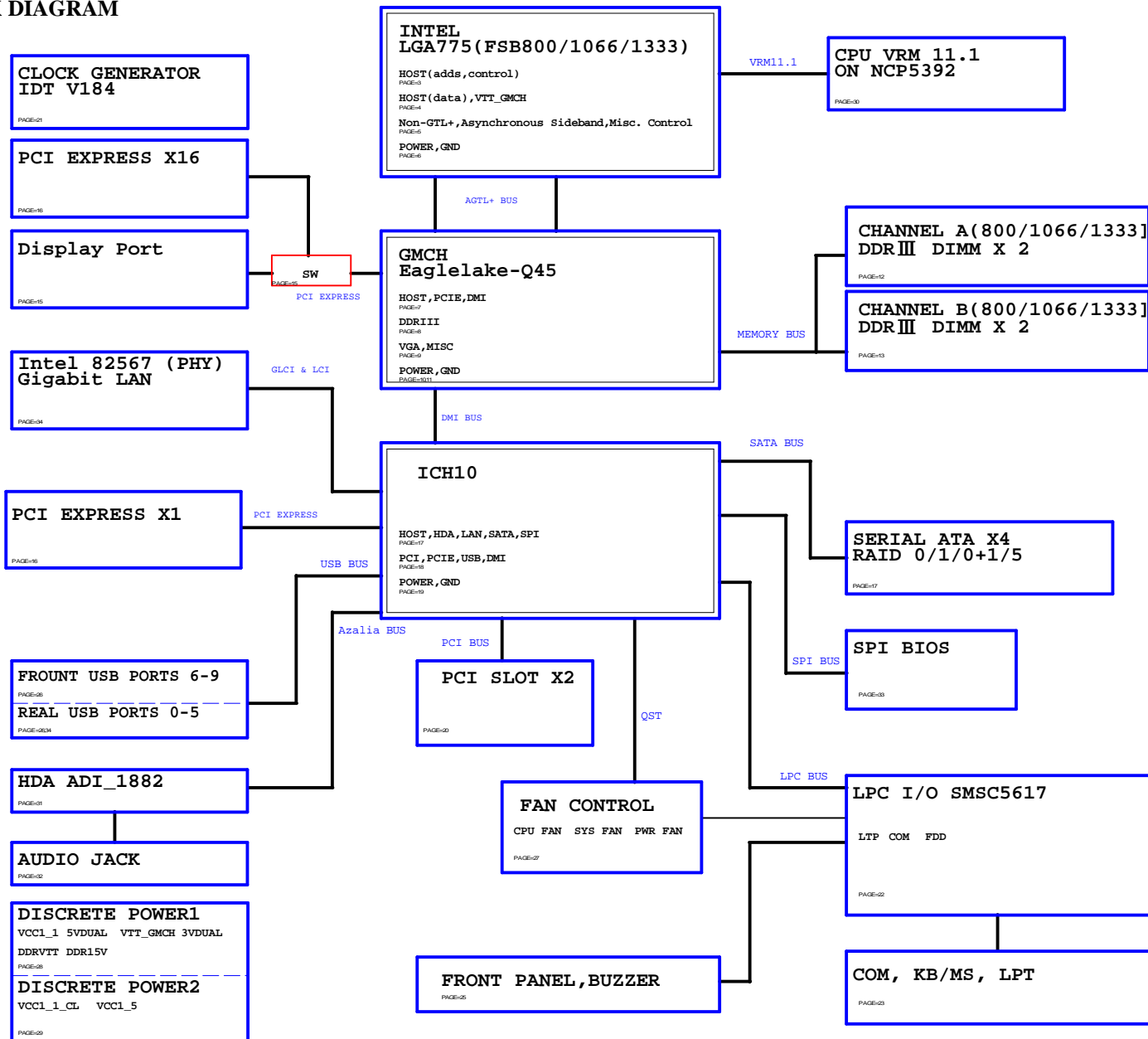
4-layer stack-up total thickness=59mils

-----	SIGNAL LAYER	1.9 MILS (Final thickness after plating)
-----	PREPREG 1080HR	2.7 MILS
=====	VCC Layer	1.2 MILS (1 OZ COPPER)
=====	CORE	47 MILS +/-5 mils
=====	GND Layer	1.2 MILS (1 OZ COPPER)
-----	PREPREG 1080HR	2.7 MILS
-----	SIGNAL LAYER	1.9 MILS (Final thickness after plating)

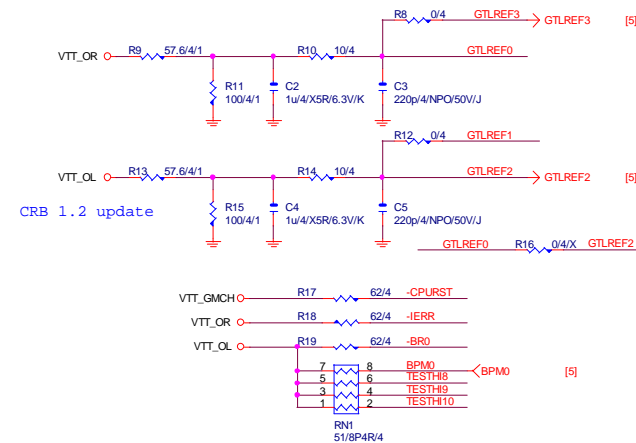
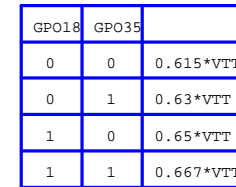
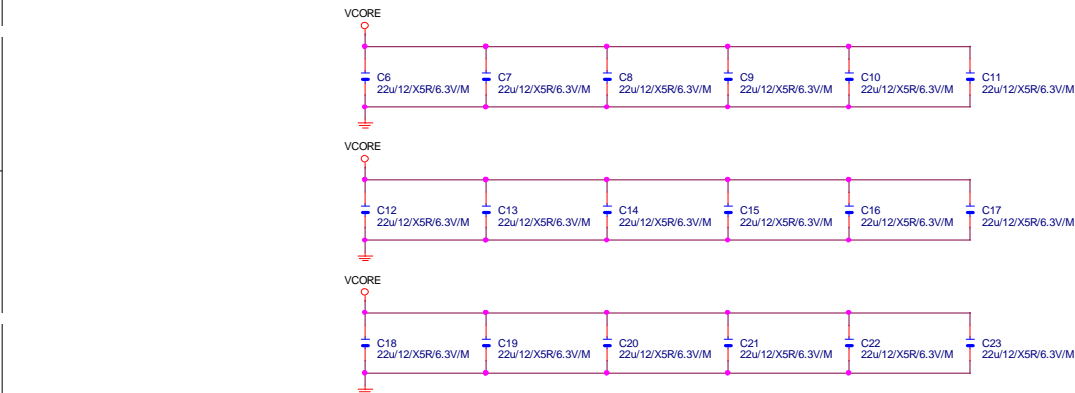
GIGABYTE TECHNOLOGIES, INC.

Cover Sheet		
Size C	Document Number PANDA(MTQ45MK)	Rev 1.0
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BLOCK DIAGRAM



LGA775A



CRB 1.2 update

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