

Product Spec

Motherboard

RB-J3455T V1.0

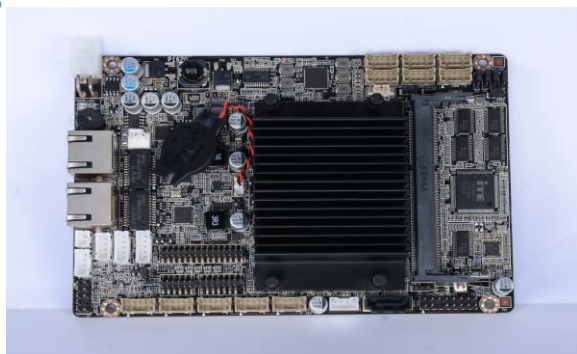
Prepared by : Tony

Date: 2017/07/31

Approved by: Peter

Date: 2017/07/31

Revision History			
Revision	Date	Description	Author
V1.0	2017/07/31	First release	Tony



Features

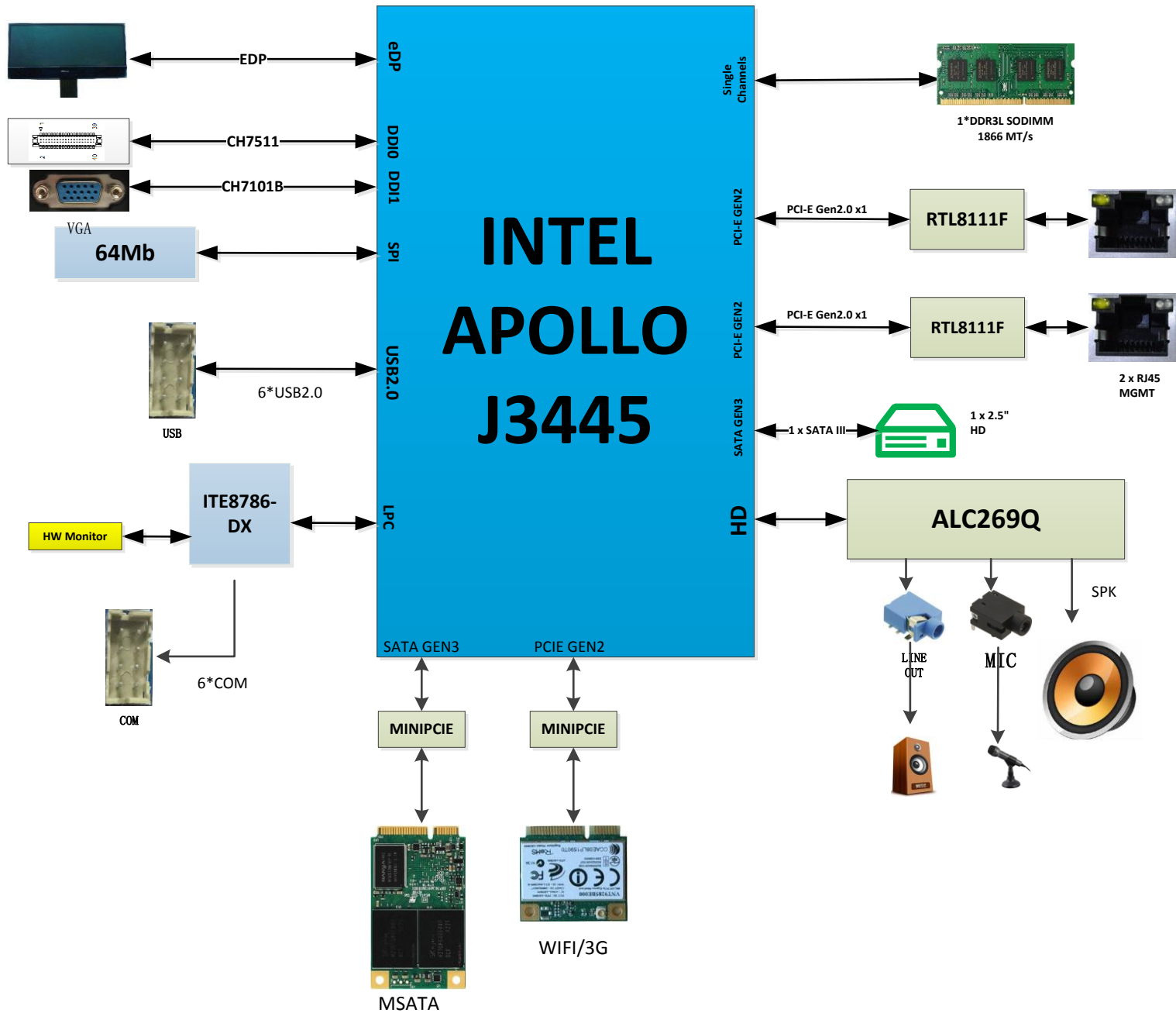
- *Intel Apollo Platform, J3455 CPU, 2.3GHz, 4*Cores,4*Threads
- *Supports 3 independent Display, support android
- *Supports 2 X 10/100/1000M LAN adapter
- *Support 10 X USB2.0
- *Support 6 X RS232 COMs, 1 X SATAIII, 1 X MSATA, 1 X WIFI/4G LTE
- *Support HD Audio, 1 X Audio out, 1X MIC, 1X SPEAKER
- *Support 12DC Adapter
- *Support Eup Power saving
- *One 240-pin SODIMM up to 8GB, DDR3L 1066/1333 /1600 MHz

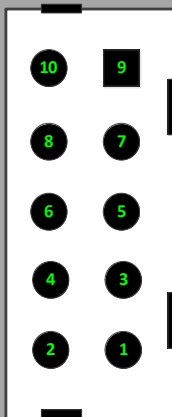
Application Industry

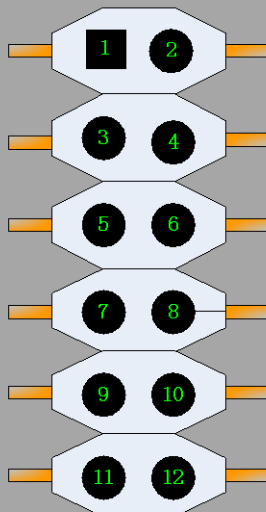
Medical industry.Traffic industry, Advertising Machine,Financial industry,

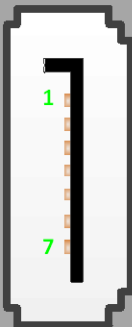
Specifications

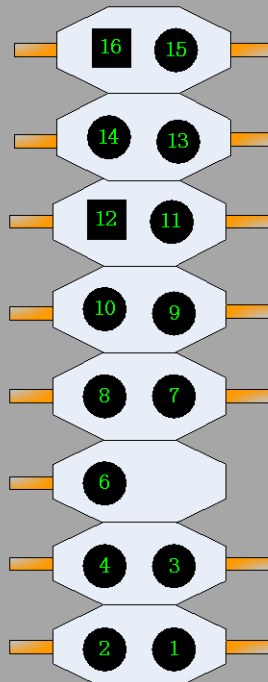
CPU	CPU	Intel Apollo J3455 of 4 Cores 4 Threads
	Instruction Set	64bit
	Lithography	14nm
	Frequency	1.5 GHz- 2.3 GHz
Memory	Type	SODIMM DDR3L No ECC ,1333/1600/1867 MHz
	Channel	1C1P
	Max Memory Size	8GB
Graphics	Graphics	Intel HD Graphics
	Displays Supported	3 Independent Display (1 x EDP, 1 x LVDS, 1 x VGA)
Audio	ALC269Q HD Audio	x1 Audio line out, x1 MIC, x1 Speaker
Ethernet	RTL8111F	x2 10/100/1000M BASET LAN
Internal Connector	SIM	x1 Standard Sim Socket
	SATA	x1 MSATA/SATA 7PIN
	WIFI/4G	x1 MINIPCIE
	COM	x6 COM1-COM6 RS232 2x5 Wafer
	VGA	x1 2x8 Header
	SATA-PWR	x1 1*4PIN 2.0mm wafer
	USB	x6 2*5PIN 2.0mm wafer
	AUDIO	x1 2*5PIN 2.54mm Header NC PIN8
	SPEAKER	x1 1*4PIN 2.0mm wafer
	IVCN_LVDS	x1 1*5PIN 2.0mm wafer
	IVCN_EDP	x1 1*5PIN 2.0mm wafer
	LVDS	x1 2*15PIN 2.0mm header
	EDP	x1 2*8PIN 2.0mm header
	GPIO	x1 2X6 Header ,8 independent Programing GPIO
I/O	DC JACK	x1 12V, ATX_2X2P
	RJ45	x2 Single RJ45
BIOS	Vender	AMI
Power	POWER Brick	12V DC POWER Brick
Dimensions	PCB	156*102MM
Requirements	Operation	-15℃~+50℃, 10%~95% RTH
Environment	Storeage	-40℃~+70℃, 10%~95% RTH



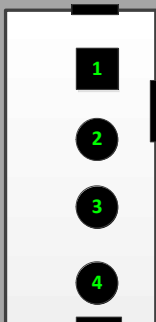
USB	(JUSB1/JUSB2/JUSB3/JUSB4/JUSB5/JUSB6)																				
PIN Define	 <table><tr><td>1</td><td>VCC</td><td>2</td><td>VCC</td></tr><tr><td>3</td><td>D-</td><td>4</td><td>D-</td></tr><tr><td>5</td><td>D+</td><td>6</td><td>D+</td></tr><tr><td>7</td><td>GND</td><td>8</td><td>GND</td></tr><tr><td>9</td><td>GND</td><td>10</td><td>GND</td></tr></table>	1	VCC	2	VCC	3	D-	4	D-	5	D+	6	D+	7	GND	8	GND	9	GND	10	GND
1	VCC	2	VCC																		
3	D-	4	D-																		
5	D+	6	D+																		
7	GND	8	GND																		
9	GND	10	GND																		
Type	2X5 Header Box PH=2.0 mm																				

GPIO	GPIO																									
PIN Define		<table><tr><td>1</td><td>5V</td><td>2</td><td>12V</td></tr><tr><td>3</td><td>GPIO1</td><td>4</td><td>GPIO5</td></tr><tr><td>5</td><td>GPIO2</td><td>6</td><td>GPIO6</td></tr><tr><td>7</td><td>GPIO3</td><td>8</td><td>GPIO7</td></tr><tr><td>9</td><td>GPIO4</td><td>10</td><td>GPIO8</td></tr><tr><td>11</td><td>5V</td><td>12</td><td>12V</td></tr></table>	1	5V	2	12V	3	GPIO1	4	GPIO5	5	GPIO2	6	GPIO6	7	GPIO3	8	GPIO7	9	GPIO4	10	GPIO8	11	5V	12	12V
	1	5V	2	12V																						
	3	GPIO1	4	GPIO5																						
	5	GPIO2	6	GPIO6																						
	7	GPIO3	8	GPIO7																						
	9	GPIO4	10	GPIO8																						
	11	5V	12	12V																						
Type	2x6 DuPont Header, PH=2.0mm																									

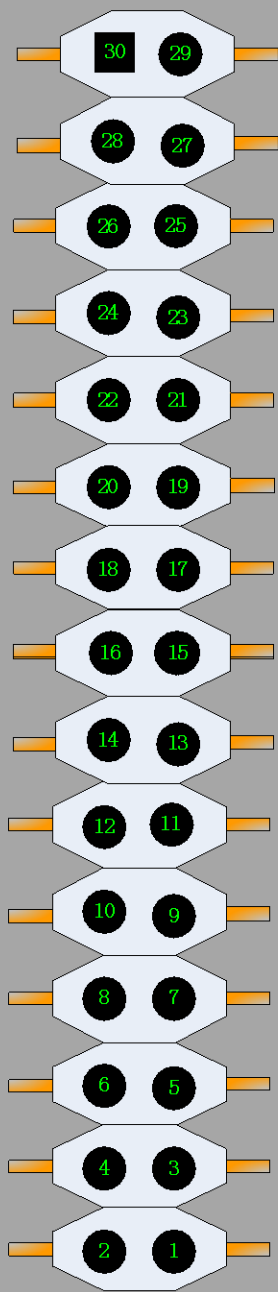
SATA	SATA														
PIN Define	 <table border="1"> <tr> <td>1</td><td>GND</td></tr> <tr> <td>2</td><td>TX+</td></tr> <tr> <td>3</td><td>TX-</td></tr> <tr> <td>4</td><td>GND</td></tr> <tr> <td>5</td><td>RX-</td></tr> <tr> <td>6</td><td>RX+</td></tr> <tr> <td>7</td><td>GND</td></tr> </table>	1	GND	2	TX+	3	TX-	4	GND	5	RX-	6	RX+	7	GND
1	GND														
2	TX+														
3	TX-														
4	GND														
5	RX-														
6	RX+														
7	GND														
Type	7PIN Standard SATA														

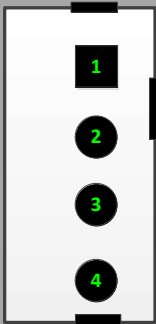
VGA	(JVGA)																																
PIN Define	 <table><tr><td>1</td><td>Rout</td><td>2</td><td>GND</td></tr><tr><td>3</td><td>GVCC</td><td>4</td><td>Gout</td></tr><tr><td>5</td><td>NC</td><td>6</td><td>SDA</td></tr><tr><td>7</td><td>Bout</td><td>8</td><td>GND</td></tr><tr><td>9</td><td>HSYNC</td><td>10</td><td>GVCC</td></tr><tr><td>11</td><td>GVCC</td><td>12</td><td>VSYNC</td></tr><tr><td>13</td><td>GND</td><td>14</td><td>GND</td></tr><tr><td>15</td><td>SCL</td><td>16</td><td>NC</td></tr></table>	1	Rout	2	GND	3	GVCC	4	Gout	5	NC	6	SDA	7	Bout	8	GND	9	HSYNC	10	GVCC	11	GVCC	12	VSYNC	13	GND	14	GND	15	SCL	16	NC
1	Rout	2	GND																														
3	GVCC	4	Gout																														
5	NC	6	SDA																														
7	Bout	8	GND																														
9	HSYNC	10	GVCC																														
11	GVCC	12	VSYNC																														
13	GND	14	GND																														
15	SCL	16	NC																														
Type	2x8 DuPont Header, PH=2.54mm																																

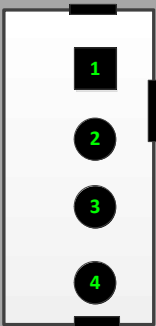
Reset	RESET				
PIN Define	 <table border="1"> <tr><td>1</td><td>FP_RST</td></tr> <tr><td>2</td><td>GND</td></tr> </table>	1	FP_RST	2	GND
1	FP_RST				
2	GND				
Type	1x2 Wafer Box PH=2.0 mm				
Memo	Short PIN1 and PIN2 Will Reset system				

SATA PWR	SATA_PWR								
PIN Define	 <table border="1"> <tr><td>1</td><td>5V</td></tr> <tr><td>2</td><td>GND</td></tr> <tr><td>3</td><td>GND</td></tr> <tr><td>4</td><td>12V</td></tr> </table>	1	5V	2	GND	3	GND	4	12V
1	5V								
2	GND								
3	GND								
4	12V								
Type	1x4 Wafer Box PH=2.0 mm								

JCMOS	JCMOS1									
接口定义	 <table><tr><th>Pin</th><th>1-2</th><th>2-3</th></tr><tr><td>Define</td><td>Normal</td><td>Clear CMOS</td></tr><tr><td>Default</td><td colspan="2">1-2</td></tr></table>	Pin	1-2	2-3	Define	Normal	Clear CMOS	Default	1-2	
Pin	1-2	2-3								
Define	Normal	Clear CMOS								
Default	1-2									
Type	1x3 DuPont Header PH=2.0mm									

LVDS	(LVDS)																																																													
PIN Define		<table><tr><td>1</td><td>LCDVDD</td><td>2</td><td>LCDVDD</td></tr><tr><td>3</td><td>LCDVDD</td><td>4</td><td>NC</td></tr><tr><td>5</td><td>GND</td><td>6</td><td>NC</td></tr><tr><td>7</td><td>A0M</td><td>8</td><td>A0P</td></tr><tr><td>9</td><td>A1M</td><td>10</td><td>A1P</td></tr><tr><td>11</td><td>A2M</td><td>12</td><td>A2P</td></tr><tr><td>13</td><td>GND</td><td>14</td><td>GND</td></tr><tr><td>15</td><td>CLK1M</td><td>16</td><td>CLK1P</td></tr><tr><td>17</td><td>A3M</td><td>18</td><td>A3P</td></tr><tr><td>19</td><td>A4M</td><td>20</td><td>A4P</td></tr><tr><td>21</td><td>A5M</td><td>22</td><td>A5P</td></tr><tr><td>23</td><td>A6M</td><td>24</td><td>A6P</td></tr><tr><td>25</td><td>GND</td><td>26</td><td>GND</td></tr><tr><td>27</td><td>CLK2M</td><td>28</td><td>CLK2P</td></tr><tr><td>29</td><td>A7M</td><td>30</td><td>A7P</td></tr></table>	1	LCDVDD	2	LCDVDD	3	LCDVDD	4	NC	5	GND	6	NC	7	A0M	8	A0P	9	A1M	10	A1P	11	A2M	12	A2P	13	GND	14	GND	15	CLK1M	16	CLK1P	17	A3M	18	A3P	19	A4M	20	A4P	21	A5M	22	A5P	23	A6M	24	A6P	25	GND	26	GND	27	CLK2M	28	CLK2P	29	A7M	30	A7P
	1	LCDVDD	2	LCDVDD																																																										
	3	LCDVDD	4	NC																																																										
	5	GND	6	NC																																																										
	7	A0M	8	A0P																																																										
	9	A1M	10	A1P																																																										
	11	A2M	12	A2P																																																										
	13	GND	14	GND																																																										
	15	CLK1M	16	CLK1P																																																										
	17	A3M	18	A3P																																																										
	19	A4M	20	A4P																																																										
	21	A5M	22	A5P																																																										
	23	A6M	24	A6P																																																										
	25	GND	26	GND																																																										
	27	CLK2M	28	CLK2P																																																										
29	A7M	30	A7P																																																											
Type	2x15 DuPont Header, PH=2.0mm																																																													

Speaker	(F_SPK)								
PIN Define	 <table border="1"> <tr><td>1</td><td>L-</td></tr> <tr><td>2</td><td>L+</td></tr> <tr><td>3</td><td>R+</td></tr> <tr><td>4</td><td>R-</td></tr> </table>	1	L-	2	L+	3	R+	4	R-
1	L-								
2	L+								
3	R+								
4	R-								
Type	1x4 Wafer Box PH=2.0 mm								

F_PANEL	(ON_LED)								
PIN Define	 <table border="1"> <tr><td>1</td><td>PWRBTN</td></tr> <tr><td>2</td><td>GND</td></tr> <tr><td>3</td><td>VCC</td></tr> <tr><td>4</td><td>GND</td></tr> </table>	1	PWRBTN	2	GND	3	VCC	4	GND
1	PWRBTN								
2	GND								
3	VCC								
4	GND								
Type	1x4 Wafer Box PH=2.0 mm								

IVCN	(IVCN_LVDS)										
PIN Define	 <table border="1"> <tr><td>1</td><td>12V</td></tr> <tr><td>2</td><td>GND</td></tr> <tr><td>3</td><td>BKLT_ON</td></tr> <tr><td>4</td><td>BKLT_PWM</td></tr> <tr><td>5</td><td>5V</td></tr> </table>	1	12V	2	GND	3	BKLT_ON	4	BKLT_PWM	5	5V
1	12V										
2	GND										
3	BKLT_ON										
4	BKLT_PWM										
5	5V										
Type	1x5 Wafer Box PH=2.0 mm										

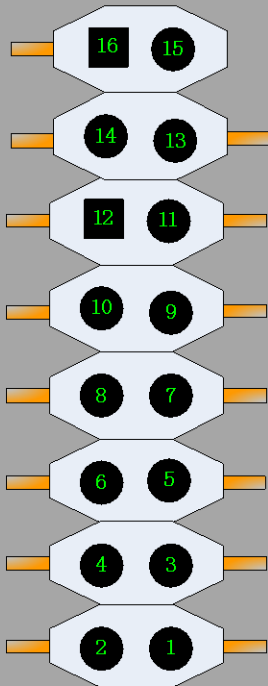
JME	JME						
接口定义	 <table border="1"> <tr><td>Pin</td><td>1-2</td></tr> <tr><td>Define</td><td>ENABLE</td></tr> <tr><td>Default</td><td>NC</td></tr> </table>	Pin	1-2	Define	ENABLE	Default	NC
Pin	1-2						
Define	ENABLE						
Default	NC						
Type	1x2 DuPont Header PH=2.0mm						

IVCN	(IVCN_EDP)										
PIN Define	1 2 3 4 5 <table><tr><td>1</td><td>12V</td></tr><tr><td>2</td><td>GND</td></tr><tr><td>3</td><td>BKLT_ON</td></tr><tr><td>4</td><td>BKLT_PWM</td></tr><tr><td>5</td><td>5V</td></tr></table>	1	12V	2	GND	3	BKLT_ON	4	BKLT_PWM	5	5V
1	12V										
2	GND										
3	BKLT_ON										
4	BKLT_PWM										
5	5V										
Type	1x5 Wafer Box PH=2.0 mm										

COM	(COM1/COM2/COM3/COM4/COM5/COM6)																				
PIN Define	10 8 6 4 2 9 7 5 3 1 <table><tr><td>1</td><td>S_DCD</td><td>2</td><td>RXD</td></tr><tr><td>3</td><td>TXD</td><td>4</td><td>DTR</td></tr><tr><td>5</td><td>GND</td><td>6</td><td>DSR</td></tr><tr><td>7</td><td>RTS</td><td>8</td><td>CTS</td></tr><tr><td>9</td><td>RI</td><td>10</td><td>NC</td></tr></table>	1	S_DCD	2	RXD	3	TXD	4	DTR	5	GND	6	DSR	7	RTS	8	CTS	9	RI	10	NC
1	S_DCD	2	RXD																		
3	TXD	4	DTR																		
5	GND	6	DSR																		
7	RTS	8	CTS																		
9	RI	10	NC																		
Type	2X5 Header Box PH=2.0 mm																				

JC	(JC1/JC2/JC3/JC4/JC5/JC6)												
接口定义	1 2 3 <table><tr><td>Pin</td><td>1</td><td>2</td><td>3</td></tr><tr><td>Define</td><td>5V</td><td>S_DCD</td><td>DCD</td></tr><tr><td>Default</td><td colspan="3">1-2</td></tr></table>	Pin	1	2	3	Define	5V	S_DCD	DCD	Default	1-2		
Pin	1	2	3										
Define	5V	S_DCD	DCD										
Default	1-2												
Type	1x3 DuPont Header PH=2.0mm												

SYS_FAN	System Fan Power and sense						
PIN Define	1 2 3 <table><tr><td>1</td><td>GND</td></tr><tr><td>2</td><td>12V</td></tr><tr><td>3</td><td>FAN_TAC</td></tr></table>	1	GND	2	12V	3	FAN_TAC
1	GND						
2	12V						
3	FAN_TAC						
Type	1X3 FDC Connetor, PH=2.54mm						

EDP	EDP																																	
PIN Define		<table><tr><td>1</td><td>3.3V</td><td>2</td><td>3.3V</td></tr><tr><td>3</td><td>GND</td><td>4</td><td>GND</td></tr><tr><td>5</td><td>TXP0</td><td>6</td><td>TXP1</td></tr><tr><td>7</td><td>TXN0</td><td>8</td><td>TXN1</td></tr><tr><td>9</td><td>GND</td><td>10</td><td>GND</td></tr><tr><td>11</td><td>AUXP</td><td>12</td><td>HPD</td></tr><tr><td>13</td><td>AUXN</td><td>14</td><td>GND</td></tr><tr><td>15</td><td>NC</td><td>16</td><td>GND</td></tr></table>	1	3.3V	2	3.3V	3	GND	4	GND	5	TXP0	6	TXP1	7	TXN0	8	TXN1	9	GND	10	GND	11	AUXP	12	HPD	13	AUXN	14	GND	15	NC	16	GND
	1	3.3V	2	3.3V																														
	3	GND	4	GND																														
	5	TXP0	6	TXP1																														
	7	TXN0	8	TXN1																														
	9	GND	10	GND																														
	11	AUXP	12	HPD																														
	13	AUXN	14	GND																														
15	NC	16	GND																															
Type	2x8 DuPont Header, PH=2.54mm																																	