Orange PI CM4 JP1 100PIN					
Description	Signal	PIN NO.		Signal	Description
Ground (0V)	GND	1	2	GND	Ground (0V)
Ethernet Pair 3 Positive	PHY0_MDI_3+	3	4	PHY0_MDI_1+	Ethernet Pair 1 Positive
Ethernet Pair 3 Negative	PHY0_MDI_3-	5	6	PHY0_MDI_1-	Ethernet Pair 1 Negative
Ground (0V)	GND	7	8	GND	Ground (0V)
Ethernet Pair 2 Negative	PHY0_MDI_2-	9	10	PHY0_MDI_0-	Ethernet Pair 0 Negative
Ethernet Pair 2 Positive	PHY0_MDI_2+	11	12	PHY0_MDI_0+	Ethernet Pair 0 Positive
Ground (0V)	GND	13	14	GND	Ground (0V)
When pulling up CFG_EXT pin, CFG_LDO[1:0] stand for input voltage selection of external power for I/O pad:2’ b00: 3.3V	PHY0_LED2/CFG_LDO1	15	16	Reserved	Do not Connect anything to this pin.
When pulling up CFG_EXT pin, CFG_LDO[1:0] stand for input voltage selection of external power for I/O pad:2’ b00: 3.3V	PHY0_LED1/CFG_LDO0	17	18	Reserved	Do not Connect anything to this pin.
I/O PadExternal Power Source Mode Configuration. Pull up to use the external power source for the I/O pad	PHY0_LED0/CFG_EXT	19	20	Reserved	Do not Connect anything to this pin.
GPIO Typically a 3.3V	DIY LED	21	22	GND	Ground (0V)
Ground (0V)	GND	23	24	GPIO3_D3	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO3_D1 (I2S1_SDO_M1)	25	26	GPIO3_D0 (I2S1_LRCK_M1)	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO3_D2 (I2S1_SDI_M1)	27	28	GPIO3_D7	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO3_D5	29	30	GPIO3_D4	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO4_C0	31	32	GND	Ground (0V)
Ground (0V)	GND	33	34	GPIO4_A5	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V	GPIO1_A1 (I2C3_SCL_M0) 3.3LV	35	36	GPIO1_A0 (I2C3_SDA_M0) 3.3LV	GPIO Typically a 3.3V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO4_A7 (SPI3_CS1_M0)	37	38	GPIO4_B3 (SPI3_CLK_M0)	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO4_A6 (SPI3_CS0_M0)	39	40	GPIO4_B0 (SPI3_MISO_M0)	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO4_A4	41	42	GND	Ground (0V)

Ground (0V)	GND	43	44	GPIO4_B2 (SPI3_MOSI_M0)	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO4_A1	45	46	GPIO4_A2	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO4_A3	47	48	GPIO4_A0	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO3_C7 (I2S1_SCLK_M1)	49	50	GPIO3_C6 (I2S1_MCLK_M1)	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO0_D0 (UART2_RX_M0)	51	52	GND	Ground (0V)
Ground (0V)	GND	53	54	GPIO4_C3	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	GPIO0_D1 (UART2_TX_M0)	55	56	GPIO4_B5 (I2C2_SCL_M1)	GPIO Typically a 3.3V，3.3V or 1.8V
GPIO Typically a 3.3V，3.3V or 1.8V	SDMMC0_CLK	57	58	GPIO4_B4 (I2C2_SDA_M1)	GPIO Typically a 3.3V，3.3V or 1.8V
Ground (0V)	GND	59	60	GND	Ground (0V)
SDCARD Data3 signal	SDMMC0_D3	61	62	SDMMC0_CMD	SDCARD CMD signal
SDCARD Data0 signal	SDMMC0_D0	63	64	Reserved	Do not Connect anything to this pin.
Ground (0V)	GND	65	66	GND	Ground (0V)
SDCARD Data1 signal	SDMMC0_D1	67	68	SW_RECOVERY	RECOVERY signal，Internally pulled up via 10K to1.8V
SDCARD Data2 signal	SDMMC0_D2	69	70	SARADC_VIN1	ADC signal
Ground (0V)	GND	71	72	GPIO0_C6-PWM7_IR	GPIO Typically a 3.3V ，PWM_IR signal
Do not Connect anything to this pin.	Reserved	73	74	GND	Ground (0V)
Output to Power switch for the SDCARD.	SD_PWR_ON	75	76	SDMMC0_DET_L	SDMMC0_DET,
4.75V-5.25V Main power input max 4A	VBUS	77	78	VCCIO6	for 3.3V GPIO or for 1.8V GPIO.
	VBUS	79	80	I2C1_SCL_M0	IIC Clock pin,Typically a 3.3V
	VBUS	81	82	I2C1_SDA_M0	IIC Data pin,Typically a 3.3V
	VBUS	83	84	VCC_3V3	3.3V +/-2.5% Power Output max 2A
	VBUS	85	86	VCC_3V3	
	VBUS	87	88	VCC_1V8	1.8V +/-2.5% Power Output max 600mA
Can be left floating if driven low the wireless interface will be disabled.Internal pulled up via IO to 1.8V	WL_nDIS	89	90	VCC_1V8	

Can be left floating if driven low the Bluetooth interface will be disabled,Internal pulled up via IO to 1.8V	BT_nDIS	91	92	RESETn	Bidirectional pin. Can be driven low to Reset the CM4 CPU.
A low on this pin forces booting , Internally pulled up via IO to1.8V	BOOT-SW	93	94	SARADC_VIN3	ADC in signal
GPIO Typically a 3.3V ，PWM signal	WORK_LED	95	96	SARADC_VIN2	
GPIO Typically a 3.3V	CAMERA_PDN_L	97	98	GND	Ground (0V)
Input. Drive low to power off CM4. Internally pulled up with a 30K to +3.3V	PMIC_PWRON	99	100	nEXTRST	GPIO Typically a 3.3V

Orange PI CM4 JP2 100PIN					
Description	**Signal**	**PIN NO.**		**Signal**	**Description**
Input (3.3V signal) USB OTG Pin. Internal pulled up.	USB_OTG0_ID	1	2	PCIE20_CLKREQn_3V3_L	Input (3.3V signal) PCIe Clock request pin (low to request PCI clock). Internal pulled up
USB D-	USB_OTG0_DM	3	4	PCIE20_WAKEn_3V3_L	Input (3.3V signal) PCIe wake up pin (low to wake up CPU). Internal pulled up.
USB D+	USB_OTG0_DP	5	6	Reserved	Do not Connect anything to this pin.
Ground (0V)	GND	7	8	GND	Ground (0V)
Output (+3.3V signal) PCIe Reset Low active	PCIE20_PERSTn_3V3_L	9	10	PCIE20_REFCLKP_P	PCIe Clock Out Positive (100MHz) NB AC coupling Capacitor Included on CM4
Do not Connect anything to this pin.	Reserved	11	12	PCIE20_REFCLKP_N	PCIe Clock Out Negative (100MHz) NB AC coupling Capacitor Included on CM4
Ground (0V)	GND	13	14	GND	Ground (0V)
Input Camera0 D0 Negative	MIPI_CSI_RX_D0N	15	16	PCIE20_RXP	Input PCIe GEN 2 RX Positive NB External AC coupling Capacitor required
nput Camera0 D0 Positive	MIPI_CSI_RX_D0P	17	18	PCIE20_RXN	Input PCIe GEN 2 RX Negative NB External AC coupling Capacitor required
Ground (0V)	GND	19	20	GND	Ground (0V)

Input Camera0 D1 Negative	MIPI_CSI_RX_D1N	21	22	PCIE20_TXP	Output PCIe GEN 2 TX Positive NB AC coupling Capacitor Included on CM4
Input Camera0 D1 Positive	MIPI_CSI_RX_D1P	23	24	PCIE20_TXN	Output PCIe GEN 2 TX Positive NB AC coupling Capacitor Included on CM4
Ground (0V)	GND	25	26	GND	Ground (0V)
Input Camera0 Clock Negative	MIPI_CSI_RX_CLK0N	27	28	MIPI_CSI_RX_D2N	Input Camera1 D0 Negative
Input Camera0 Clock Positive	MIPI_CSI_RX_CLK0P	29	30	MIPI_CSI_RX_D2P	Input Camera1 D0 Positive
Ground (0V)	GND	31	32	GND	Ground (0V)
Input Camera0 D2 Negative	MIPI_CSI_RX_D2N	33	34	MIPI_CSI_RX_D3N	Input Camera1 D1 Negative
Input Camera0 D2 Positive	MIPI_CSI_RX_D2P	35	36	MIPI_CSI_RX_D3P	Input Camera1 D1 Positive
Ground (0V)	GND	37	38	GND	Ground (0V)
Input Camera0 D3 Negative	MIPI_CSI_RX_D3N	39	40	MIPI_CSI_RX_CLK1N	Input Camera1 Clock Negative
Input Camera0 D3 Positive	MIPI_CSI_RX_D3P	41	42	MIPI_CSI_RX_CLK1P	Input Camera1 Clock Positive
EDP_TX_D3P	EDP_TX_D3P	43	44	GND	Ground (0V)
EDP_SDA	EDP_SDA (I2C4_SDA_M1)	45	46	EDP_TX_D2P	EDP_TX_D2P
EDP_SCL	EDP_SCL (I2C4_SCL_M1)	47	48	EDP_TX_D2N	EDP_TX_D2N
EDP_TX_D3N	EDP_TX_D3N	49	50	GND	Ground (0V)
HDMI_CEC_PORT	HDMI_CEC_PORT	51	52	EDP_TX_D1P	EDP_TX_D1P
HDMI_TX_HPD_PORT	HDMI_TX_HPD_PORT	53	54	EDP_TX_D1N	EDP_TX_D1N
Ground (0V)	GND	55	56	GND	Ground (0V)
MIPI_DSI_TX0_D0N	MIPI_DSI_TX0_D0N	57	58	EDP_TX_D0P	EDP_TX_D0P
MIPI_DSI_TX0_D0P	MIPI_DSI_TX0_D0P	59	60	EDP_TX_D0N	EDP_TX_D0N
Ground (0V)	GND	61	62	GND	Ground (0V)

MIPI_DSI_TX0_D1N	MIPI_DSI_TX0_D1N	63	64	EDP_TX_AUXP	EDP_TX_AUXP
MIPI_DSI_TX0_D1P	MIPI_DSI_TX0_D1P	65	66	EDP_TX_AUXN	EDP_TX_AUXN
Ground (0V)	GND	67	68	GND	Ground (0V)
MIPI_DSI_TX0_CLKN	MIPI_DSI_TX0_CLKN	69	70	HDMI_TX2P_PORT	HDMI_TX2P_PORT
MIPI_DSI_TX0_CLKP	MIPI_DSI_TX0_CLKP	71	72	HDMI_TX2N_PORT	HDMI_TX2N_PORT
Ground (0V)	GND	73	74	GND	Ground (0V)
MIPI_DSI_TX1_D0N	MIPI_DSI_TX1_D0N	75	76	HDMI_TX1P_PORT	HDMI_TX1P_PORT
MIPI_DSI_TX1_D0P	MIPI_DSI_TX1_D0P	77	78	HDMI_TX1N_PORT	HDMI_TX1N_PORT
Ground (0V)	GND	79	80	GND	Ground (0V)
MIPI_DSI_TX1_D1N	MIPI_DSI_TX1_D1N	81	82	HDMI_TX0P_PORT	HDMI_TX0P_PORT
MIPI_DSI_TX1_D1P	MIPI_DSI_TX1_D1P	83	84	HDMI_TX0N_PORT	HDMI_TX0N_PORT
Ground (0V)	GND	85	86	GND	Ground (0V)
MIPI_DSI_TX1_CLKN	MIPI_DSI_TX1_CLKN	87	88	HDMI_TXCLKP_PORT	HDMI_TXCLKP_PORT
MIPI_DSI_TX1_CLKP	MIPI_DSI_TX1_CLKP	89	90	HDMI_TXCLKN_PORT	HDMI_TXCLKN_PORT
Ground (0V)	GND	91	92	GND	Ground (0V)
MIPI_DSI_TX1_D2N	MIPI_DSI_TX1_D2N	93	94	MIPI_DSI_TX1_D3N	MIPI_DSI_TX1_D3N
MIPI_DSI_TX1_D2P	MIPI_DSI_TX1_D2P	95	96	MIPI_DSI_TX1_D3P	MIPI_DSI_TX1_D3P
Ground (0V)	GND	97	98	GND	Ground (0V)
HDMI_TXDDC_SDA_PORT	HDMI_TXDDC_SDA_PORT	99	100	HDMI_TXDDC_SCL_PORT	HDMI_TXDDC_SCL_PORT

Orange PI CM4 JP3 24PIN

Description	Signal	PIN NO.		Signal	Description
Ground (0V)	GND	1	2	GND	Ground (0V)
USB 2.0 Data signal DM	USB2_HOST3_DM	3	4	HPR_OUT	Right channel output of the headphone
USB 2.0 Data signal DP	USB2_HOST3_DP	5	6	HPL_OUT	Left channel output of the headphone
Ground (0V)	GND	7	8	HP_SNS	Reference ground for the headphone
USB 2.0 Data signal DM	USB2_HOST2_DM	9	10	MIC1_IN	Negative input of the Microphone
USB 2.0 Data signal DP	USB2_HOST2_DP	11	12	MIC2_IN	Positive input of the Microphone
Ground (0V)	GND	13	14	GND	Ground (0V)
headphone insertion detection	HP_DET_L	15	16	USB3_HOST1_	USB 3.0 transmission signal DP
Ground (0V)	GND	17	18	USB3_HOST1_	USB 3.0 transmission signal DN
USB 2.0 Data signal DM	USB3_HOST1_DM	19	20	GND	Ground (0V)
USB 2.0 Data signal DP	USB3_HOST1_DP	21	22	USB3_HOST1_	USB 3.0 receive signal DP
Ground (0V)	GND	23	24	USB3_HOST1_	USB 3.0 receive signal DN