

**Table 26: Recommended Operating Conditions**

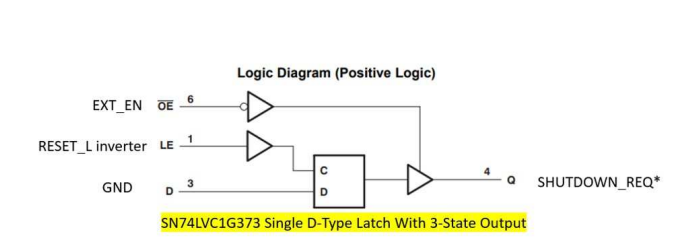
Symbol	Parameter	Minimum	Typical	Maximum	Unit
VDDoc	VDD_IN (MODULE_ID low)	4.75	5	5.25	V
	VDD_IN (MODULE_ID high)	4.75	-	20	V
	PMIC_BBAT	1.75	-	5.5	V

**Table 17: I2C Pin Descriptions**

Pin #	Signal Name	Description	Direction	Pin Type
185	I2C0_SCL	General I2C 0 Clock. 1.5kΩ pull-up to 3.3V on the module.	Bidir	Open Drain - 3.3V
187	I2C0_SDA	General I2C 0 Data. 1.5kΩ pull-up to 3.3V on the module.	Bidir	Open Drain - 3.3V
189	I2C1_SCL	General I2C 1 Clock. 2.2kΩ pull-up to 3.3V on the module.	Bidir	Open Drain - 3.3V
191	I2C1_SDA	General I2C 1 Data. 2.2kΩ pull-up to 3.3V on the module.	Bidir	Open Drain - 3.3V
232	I2C2_SCL	General I2C 2 Clock. 2.2kΩ pull-up to 1.8V on the module.	Bidir	Open Drain - 1.8V
234	I2C2_SDA	General I2C 2 Data. 2.2kΩ pull-up to 1.8V on the module.	Bidir	Open Drain - 1.8V
213	CAM_I2C_SCL	Camera I2C Clock. 2.2kΩ pull-up to 3.3V on the module.	Bidir	Open Drain - 3.3V
215	CAM_I2C_SDA	Camera I2C Data. 2.2kΩ pull-up to 3.3V on the module.	Bidir	Open Drain - 3.3V

**Table 25: GPIO Pin Descriptions**

Pin #	Signal Name	Description	Direction	Pin Type
87	GPIO00	GPIO #0 or USB 0 VBUS Enable #0	Bidir	CMOS - 1.8V
118	GPIO01	GPIO #1 or Generic Clock	Bidir	CMOS - 1.8V
124	GPIO02	GPIO #2	Bidir	CMOS - 1.8V
126	GPIO03	GPIO #3	Bidir	CMOS - 1.8V
127	GPIO04	GPIO #4	Bidir	CMOS - 1.8V
128	GPIO05	GPIO #5	Bidir	CMOS - 1.8V
130	GPIO06	GPIO #6	Bidir	CMOS - 1.8V
206	GPIO07	GPIO #7 or Pulse Width Modulator	Bidir	CMOS - 1.8V
208	GPIO08	GPIO #8 or Fan Tachometer	Bidir	CMOS - 1.8V
211	GPIO09	GPIO #9 or Audio Codec Master Clock	Bidir	CMOS - 1.8V
212	GPIO10	GPIO #10	Bidir	CMOS - 1.8V
216	GPIO11	GPIO #11 or Generic Clock	Bidir	CMOS - 1.8V
218	GPIO12	GPIO #12 or Pulse Width Modulator	Bidir	CMOS - 1.8V
228	GPIO13	GPIO #13 or Pulse Width Modulator	Bidir	CMOS - 1.8V
230	GPIO14	GPIO #14 or Pulse Width Modulator	Bidir	CMOS - 1.8V



**Table 1. Function Table**

		INPUTS		OUTPUT Q	
OE	LE	D	Q	H	L
L	H	L	L	L	L
L	H	H	H	H	H
L	L	L	X	X	Q <sub>0</sub>
L	L	H	X	X	Hi-Z

**Pin Functions**

NAME	DCX, DBV	YZP	I/O	DESCRIPTION
LE	1	A1	I	Latch Enable; output follows D input when high
GND	2	B1	—	Ground
D	3	C1	I	D latch input
Q	4	C2	O	Q latch output
V <sub>CC</sub>	5	B2	—	Positive supply
OE	6	A2	I	Active low output enable; Hi-Z output when high

**3.4 Jetson Orin NX Pin List**

Jetson SODIMM Signal Name	Jetson Orin NX Function	Pin # Top Odd	Pin # Bottom Even	Jetson SODIMM Signal Name	Jetson Orin NX Function
GND	GND	1	1	GND	GND
CS1T_D0_N	CS1T_D0_N	3	4	CS10_D0_P	CS10_D0_P
CS1T_D0_P	CS1T_D0_P	5	6	CS10_D0_N	CS10_D0_N
GND	GND	7	8	GND	GND
CS1T_CLK_N	CS1T_CLK_N	10	10	CS10_CLK_N	CS10_CLK_N
CS1T_CLK_P	CS1T_CLK_P	11	12	CS10_CLK_P	CS10_CLK_P
GND	GND	13	14	GND	GND
CS1T_D1_N	CS1T_D1_N	15	16	CS10_D1_N	CS10_D1_N
CS1T_D1_P	CS1T_D1_P	17	18	CS10_D1_P	CS10_D1_P
GND	GND	19	20	GND	GND
CS10_D2_N	CS10_D2_N	21	22	CS10_D2_P	CS10_D2_P
CS10_D2_P	CS10_D2_P	23	24	CS10_D2_N	CS10_D2_N
GND	GND	25	26	GND	GND
CS10_CLK_N	CS10_CLK_N	27	28	CS10_CLK_P	CS10_CLK_P
CS10_CLK_P	CS10_CLK_P	29	30	CS10_CLK_N	CS10_CLK_N
GND	GND	31	32	GND	GND
CS10_D3_N	CS10_D3_N	33	34	CS10_D3_P	CS10_D3_P
CS10_D3_P	CS10_D3_P	35	36	CS10_D3_N	CS10_D3_N
GND	GND	37	38	GND	GND
DP1_TX0D_N	USBS52_RX_N	40	40	CS14_D3_N	PCIE2_RX0D_N
DP1_TX0D_P	USBS52_RX_P	41	42	CS14_D3_P	PCIE2_RX0D_P
GND	GND	43	44	GND	GND
DP1_TX0D_N	USBS52_TX_N	45	46	CS14_D0_N	PCIE2_TX0D_N
DP1_TX0D_P	USBS52_TX_P	47	48	CS14_D0_P	PCIE2_TX0D_P
GND	GND	49	50	GND	GND
DP1_TX02_N	USBS52_RX_N	51	52	CS14_CLK_N	PCIE2_CLK_N
DP1_TX02_P	USBS52_RX_P	53	54	CS14_CLK_P	PCIE2_CLK_P
GND	GND	55	56	GND	GND
DP1_TX03_N	USBS52_TX_N	57	58	CS14_D1_N	PCIE2_RX0D_N
DP1_TX03_P	USBS52_TX_P	59	60	CS14_D1_P	PCIE2_RX0D_P
GND	GND	61	62	GND	GND
DP1_TX0D_N	RS485_TX0D_N	63	64	CS14_D3_N	PCIE2_TX1_N
DP1_TX0D_P	RS485_TX0D_P	65	66	CS14_D3_P	PCIE2_TX1_P
GND	GND	67	68	GND	GND
DP1_TX01_N	RS485_RX0D_N	69	70	DS1_D0_N	RSVD
DP1_TX01_P	RS485_RX0D_P	71	72	DS1_D0_P	RSVD
GND	GND	73	74	GND	GND
DP1_TX02_N	RS485_RX0D_N	75	76	DS1_CLK_N	RSVD
DP1_TX02_P	RS485_RX0D_P	77	78	DS1_CLK_P	RSVD
GND	GND	79	80	GND	GND
DP1_TX03_N	RS485_RX0D_N	81	82	DS1_D1_N	RSVD
DP1_TX03_P	RS485_RX0D_P	83	84	DS1_D1_P	RSVD
GND	GND	85	86	GND	GND
SP10_M0SD	SP10_M0SD	89	90	SP10_AUX_N	RSVD
SP10_M0SK	SP10_M0SK	91	92	SP10_AUX_P	RSVD
SP10_M1SD	SP10_M1SD	93	94	HOME_CEC	HOME_CEC
SP10_M1SK	SP10_M1SK	95	96	DP1_A0P0	DP1_A0P0
SP10_C0P1	SP10_C0P1	97	98	DP1_AUX_N	DP1_AUX_N
SP10_C0N1	SP10_C0N1	99	100	DP1_AUX_P	DP1_AUX_P
UART0_TXD	UART0_TXD	99	100	DP1_AUX_P	DP1_AUX_P
UART0_RXD	UART0_RXD	101	102	GND	GND
UART0_RTS*	UART0_RTS*	103	104	SPI1_M0SD	SPI1_M0SD
UART0_CTS*	UART0_CTS*	105	106	SPI1_SCK	SPI1_SCK
GND	GND	107	108	SPI1_MISO	SPI1_MISO
USB0_D_N	USB0_D_N	109	110	SPI1_CS0*	SPI1_CS0*
USB0_D_P	USB0_D_P	111	112	SPI1_CS1*	SPI1_CS1*

Jetson SODIMM Signal Name	Jetson Orin NX Function	Pin # Top Odd	Pin # Bottom Even	Jetson SODIMM Signal Name	Jetson Orin NX Function
GND	GND	113	114	CAM0_PW0N	CAM0_PW0N
USB1_D_N	USB1_D_N	115	116	CAM0_M0SK	CAM0_M0SK
USB1_D_P	USB1_D_P	117	118	GPIO01 (CLK)	GPIO01 (CLK)
GND	GND	119	120	CAM1_PW0N	CAM1_PW0N
USB2_D_N	USB2_D_N	121	122	CAM1_M0SK	CAM1_M0SK
USB2_D_P	USB2_D_P	123	124	GPIO02	GPIO02
GND	GND	125	126	GPIO03	GPIO03
GPIO04	GPIO04	127	128	GPIO04	GPIO04
GND	GND	129	130	GPIO05	GPIO05
PCIE0_RX0D_N	PCIE0_RX0D_N	131	132	GPIO06	GPIO06
PCIE0_RX0D_P	PCIE0_RX0D_P	133	134	GND	GND
GND	GND	135	136	PCIE0_TX0_N	PCIE0_TX0_N
PCIE0_RX1_N	PCIE0_RX1_N	137	138	PCIE0_TX0_P	PCIE0_TX0_P
PCIE0_RX1_P	PCIE0_RX1_P	139	140	PCIE0_TX1_N	PCIE0_TX1_N
GND	GND	141	142	PCIE0_TX1_P	PCIE0_TX1_P
CAN_RX	CAN_RX	143	144	GND	GND
CAN_TX	CAN_TX	145	146	GND	GND
GND	GND	147	148	PCIE0_TX2_N	PCIE0_TX2_N
PCIE0_RX2_N	PCIE0_RX2_N	149	150	PCIE0_TX2_P	PCIE0_TX2_P
PCIE0_RX2_P	PCIE0_RX2_P	151	152	GND	GND
GND	GND	153	154	PCIE0_TX3_N	PCIE0_TX3_N
PCIE0_RX3_N	PCIE0_RX3_N	155	156	PCIE0_TX3_P	PCIE0_TX3_P
PCIE0_RX3_P	PCIE0_RX3_P	157	158	GND	GND
GND	GND	159	160	PCIE0_CLK_N	PCIE0_CLK_N
USBS52_RX_N	USBS52_RX_N	161	162	PCIE0_CLK_P	PCIE0_CLK_P
USBS52_RX_P	USBS52_RX_P	163	164	GND	GND
GND	GND	165	166	USBS52_TX_N	USBS52_TX_N
PCIE1_RX0_N	PCIE1_RX0_N	167	168	USBS52_TX_P	USBS52_TX_P
PCIE1_RX0_P	PCIE1_RX0_P	169	170	GND	GND
GND	GND	171	172	PCIE1_TX0_N	PCIE1_TX0_N
PCIE1_CLK_N	PCIE1_CLK_N	173	174	PCIE1_TX0_P	PCIE1_TX0_P
PCIE1_CLK_P	PCIE1_CLK_P	175	176	GND	GND
GND	GND	177	178	MOD_SLEEP*	MOD_SLEEP*
PCIE_WAKES*	PCIE_WAKES*	179	180	PCIE0_CLKREQ*	PCIE0_CLKREQ*
PCIE0_RST*	PCIE0_RST*	181	182	PCIE1_CLKREQ*	PCIE1_CLKREQ*
PCIE1_RST*	PCIE1_RST*	183	184	GBE_M0SD_N	GBE_M0SD_N
I2C0_SCL	I2C0_SCL	185	186	GBE_M0SD_P	GBE_M0SD_P
I2C0_SDA	I2C0_SDA	187	188	GBE_LED_LINK	GBE_LED_LINK
I2C1_SCL	I2C1_SCL	189	190	GBE_M0D1_N	GBE_M0D1_N
I2C1_SDA	I2C1_SDA	191	192	GBE_M0D1_P	GBE_M0D1_P
ISB0_DOUT	ISB0_DOUT	193	194	GBE_LED_ACT	GBE_LED_ACT
ISB0_DIN	ISB0_DIN	195	196	GBE_M0D2_N	GBE_M0D2_N
ISB0_FS	ISB0_FS	197	198	GBE_M0D2_P	GBE_M0D2_P
ISB0_SCLK	ISB0_SCLK	199	200	GND	GND
GND	GND	201	202	GBE_M0D3_N	GBE_M0D3_N
UART1_TXD	UART1_TXD	203	204	GBE_M0D3_P	GBE_M0D3_P
UART1_RXD	UART1_RXD	205	206	GPIO07	GPIO07
UART1_RTS*	UART1_RTS*	207	208	GPIO08	GPIO08
UART1_CTS*	UART1_CTS*	209	210	CLK_30K_OUT	CLK_30K_OUT
GPIO09	GPIO09	211	212	GPIO13	GPIO13
CAM_I2C_SCL	CAM_I2C_SCL	213	214	FORCE_RECOVERY*	FORCE_RECOVERY*
CAM_I2C_SDA	CAM_I2C_SDA	215	216	GPIO11	GPIO11
GND	GND	217	218	GPIO12	GPIO12
SODIMM_DAT0	PCIE0_RST*	219	220	IS1_D0OUT	IS1_D0OUT
SODIMM_DAT1	PCIE0_CLKREQ*	221	222	IS1_DIN	IS1_DIN
SODIMM_DAT2	PCIE1_RST*	223	224	IS1_FS	IS1_FS
SODIMM_DAT3	PCIE0_CLKREQ*	225	226	IS1_SCLK	IS1_SCLK
SODIMM_CMD	PCIE0_CLK_N	227	228	GPIO14	GPIO14
SODIMM_CLK	PCIE0_CLK_P	229	230	GPIO14	GPIO14
GND	GND	231	232	IS2_SCL	IS2_SCL
SHUTDOWN_REQ*	SHUTDOWN_REQ*	233	234	IS2_SDA	IS2_SDA
PMIC_BBAT	PMIC_BBAT	235	236	UART2_TXD	UART2_TXD

Jetson SODIMM Signal Name	Jetson Orin NX Function	Pin # Top Odd	Pin # Bottom Even	Jetson SODIMM Signal Name	Jetson Orin NX Function
POWER_EN	POWER_EN	237	238	UART2_RXD	UART2_RXD
SYS_RESET*	SYS_RESET*	239	240	SLEEPWAKE*	SLEEPWAKE*
GND	GND	241	242	GND	GND
GND	GND	243	244	GND	GND
GND	GND	245	246	GND	GND
GND	GND	247	248	GND	GND
VDD_IN	VDD_IN	249	250	GND	GND
VDD_IN	VDD_IN	251	252	VDD_IN	VDD_IN
VDD_IN	VDD_IN	253	254	VDD_IN	VDD_IN
VDD_IN	VDD_IN	255	256	VDD_IN	VDD_IN
VDD_IN	VDD_IN	257	258	VDD_IN	VDD_IN
VDD_IN	VDD_IN	259	260	VDD_IN	VDD_IN

