

XC100

Receiving Card

V1.2.2 NS110100890



TI'AN NOVASTAR TECH CO., LTD

Specifications

Change History

Document Version	Firmware Version	Release Date	Description
V1.2.2	V4.6.0.0	2019-10-31	None

Overview

XC100 is super-small full function high-end mini receiving card rolled out lately by NovaStar. Compared with traditional receiving card, XC100 is more flexible in usage and DDR3 SODIMM port adopted renders it to adapt to various electrical structures easily; as a result, one module card is suitable for all applications, greatly reducing the types of module cards to be purchased.

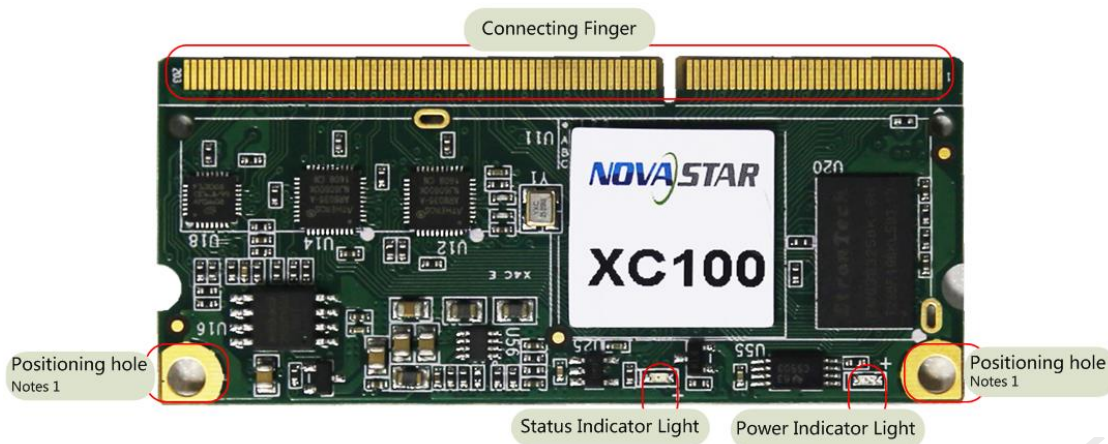
XC100 single card can load pixel of 256×256, supporting such utility functions as intelligent module management, LED display human-computer interaction and built-in voltage temperature detection. Specific circuit and program design of XC100 can effectively reduce electromagnetic radiation of the system, helping users to make their products pass EMC certification easily

Such a powerful XC100 is bound to usher in a new age of receiving card!

Features

- Single card supports pixel points of 256×256.
- Single card supports parallel output of 24-module RGB signal, extending to parallel data of 48-module RGB at maximum.
- Any scanning types within 1-1/32 scan and 595 serial decoding scanning are supported.
- All mainstream LED driving chip like regular chip and PWM chip are supported.
- High gray scale and high refresh rate is supported.
- Pixel-by-pixel calibration of brightness degree is supported.
- Perfect special shape support; Random alignment, random test pixel, special-shaped module, special-shaped cabinet and special-shaped LED display make load more easily.
- Seamless switching of various hot backups including loop backup, dual card backup, dual power supply backup, etc. are supported.
- Human-computer interaction of cabinet and LED display is supported.
- One-way voltage and temperature detection is available.
- Intelligent module is supported, with the functions of storing and managing calibration coefficient, module information and module parameters, as well as row line detection and LED pixel-by-pixel error detection without the need of monitoring card.
- Special EMC design effectively reduces electromagnetic radiation.

Appearance



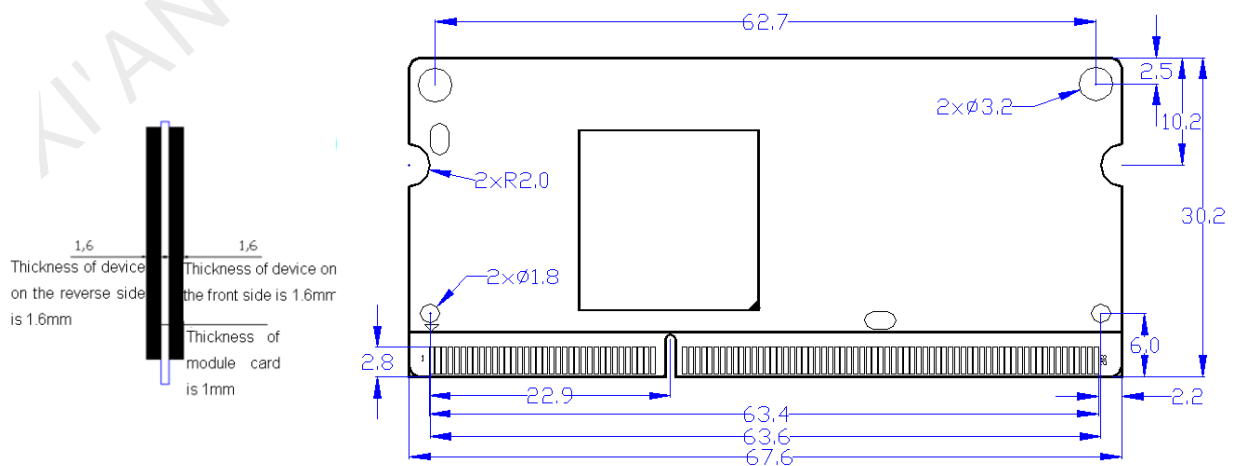
All product pictures shown in this document are for illustration purpose only. Actual product may vary.

Notes1: Positioning hole is connected to GND.

Indicator Status

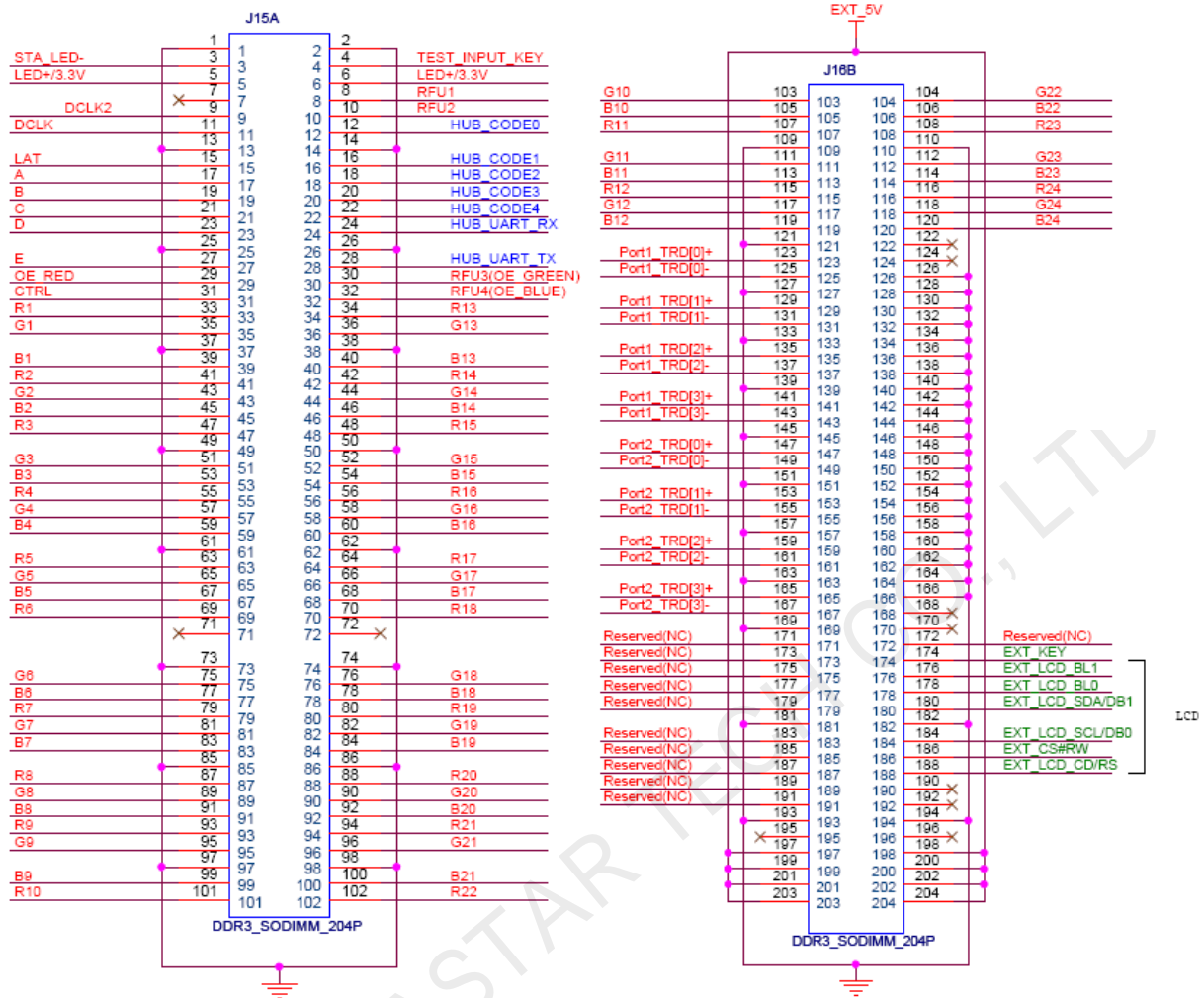
Indicator	Status	Description
Status indicator (Green)	Flashing every other 1s	Receiving card is functioning normally. Ethernet cable connection is normal, and video source input is available.
	Flashing every other 3s	Receiving card is functioning normally, but Ethernet cable connection is abnormal.
	Flashing 3 times every other 1s	Receiving card is functioning normally. Ethernet cable connection is normal, but no video source input is available.
	Flashing every other 0.5s	Program loading fails in normal operating state, currently loading backup operating program.
	Flashing 8 times every other 1s	Sending card's backup Ethernet port is now active. Receiving card is functioning normally.
Power indicator (Red)	Always on	It is always on after the power is supplied.

Dimensions



Unit: mm

Pins



	GND	1	2	GND	
	STA_LED-	3	4	TEST_INPUT_KEY	
	LED+/3.3V	5	6	LED+/3.3V	
	NC	7	8	RFU1	
No. 2 clock for data set extension	DCLK2	9	10	RFU2	
	DCLK	11	12	HUB_CODE0	Intelligent module port
	GND	13	14	GND	
	LAT	15	16	HUB_CODE1	
	A	17	18	HUB_CODE2	
	B	19	20	HUB_CODE3	
	C	21	22	HUB_CODE4	
	D	23	24	HUB_UART_RX	
	GND	25	26	GND	
	E	27	28	HUB_UART_TX	
	OE_RED	29	30	RFU3(OE_GREEN)	

	CTRL	31	32	RFU4(OE_BLUE)	
	R1	33	34	R13	
	G1	35	36	G13	
	GND	37	38	GND	
	B1	39	40	B13	
	R2	41	42	R14	
	G2	43	44	G14	
	B2	45	46	B14	
	R3	47	48	R15	
	GND	49	50	GND	
	G3	51	52	G15	
	B3	53	54	B15	
	R4	55	56	R16	
	G4	57	58	G16	
	B4	59	60	B16	
	GND	61	62	GND	
	R5	63	64	R17	
	G5	65	66	G17	
	B5	67	68	B17	
	R6	69	70	R18	
	NC	71	72	NC	
	GND	73	74	GND	
	G6	75	76	G18	
	B6	77	78	B18	
	R7	79	80	R19	
	G7	81	82	G19	
	B7	83	84	B19	
	GND	85	86	GND	
	R8	87	88	R20	
	G8	89	90	G20	
	B8	91	92	B20	
	R9	93	94	R21	
	G9	95	96	G21	
	GND	97	98	GND	
	B9	99	100	B21	
	R10	101	102	R22	
	G10	103	104	G22	
	B10	105	106	B22	

	R11	107	108	R23	
	GND	109	110	GND	
	G11	111	112	G23	
	B11	113	114	B23	
	R12	115	116	R24	
	G12	117	118	G24	
	B12	119	120	B24	
	GND	121	122	NC	
Gigabit network port	Port1_TRD[0]+	123	124	NC	Port1_TRD[0]+
	Port1_TRD[0]-	125	126	GND	Port1_TRD[0]-
	GND	127	128	GND	GND
	Port1_TRD[1]+	129	130	GND	Port1_TRD[1]+
	Port1_TRD[1]-	131	132	GND	Port1_TRD[1]-
	GND	133	134	GND	GND
	Port1_TRD[2]+	135	136	GND	Port1_TRD[2]+
	Port1_TRD[2]-	137	138	GND	Port1_TRD[2]-
	GND	139	140	GND	GND
	Port1_TRD[3]+	141	142	GND	Port1_TRD[3]+
	Port1_TRD[3]-	143	144	GND	Port1_TRD[3]-
	GND	145	146	GND	GND
	Port2_TRD[0]+	147	148	GND	Port2_TRD[0]+
	Port2_TRD[0]-	149	150	GND	Port2_TRD[0]-
	GND	151	152	GND	GND
	Port2_TRD[1]+	153	154	GND	Port2_TRD[1]+
	Port2_TRD[1]-	155	156	GND	Port2_TRD[1]-
	GND	157	158	GND	GND
	Port2_TRD[2]+	159	160	GND	Port2_TRD[2]+
	Port2_TRD[2]-	161	162	GND	Port2_TRD[2]-
	GND	163	164	GND	GND
	Port2_TRD[3]+	165	166	GND	Port2_TRD[3]+
	Port2_TRD[3]-	167	168	NC	Port2_TRD[3]-
		GND	169	170	NC
	Reserved(NC)	171	172	Reserved(NC)	
	Reserved(NC)	173	174	EXT_KEY	LCD
	Reserved(NC)	175	176	EXT_LCD_BL1	
	Reserved(NC)	177	178	EXT_LCD_BL0	
	Reserved(NC)	179	180	EXT_LCD_SDA/DB1	
	GND	181	182	GND	

	Reserved(NC)	183	184	EXT_LCD_SCL/DB0	
	Reserved(NC)	185	186	EXT_CS#RW	
	Reserved(NC)	187	188	EXT_LCD_CD/RS	
	Reserved(NC)	189	190	NC	
	Reserved(NC)	191	192	NC	
	GND	193	194	GND	
	NC	195	196	NC	
	5V	197	198	5V	
	5V	199	200	5V	
	5V	201	202	5V	
	5V	203	204	5V	

Specifications

Electrical Specifications	Input voltage	DC 3.3 V–5.0 V
	Rated current	0.4 A
	Rated power consumption	2.0 W
Operating Environment	Temperature	-20°C to +70°C
	Humidity	10% RH to 90% RH, non-condensing
Storage Environment	Temperature	-25°C to +125°C
	Humidity	0% RH to 95% RH, non-condensing
Physical Specifications	Dimensions	67.6 mm × 30.2 mm × 4.2 mm
	Net weight	8 g
Packing Information	Packing specifications	An antistatic bag and anti-collision foam are provided for each receiving card. Each packing box contains 40 receiving cards.
	Packing box dimensions	378.0 mm × 190.0 mm × 120.0 mm
Certifications	RoHS	

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