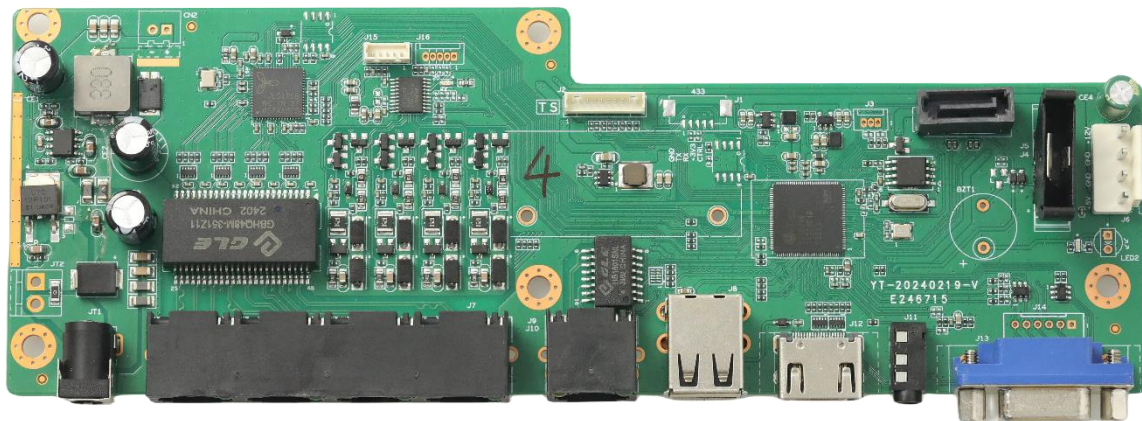


NBD89S04S-KL Module Specification



Introduction

NBD89S04S-KL is an 4-channel PoE network motherboard, support for human detection and face detection and other intelligent front-end device access, support for H.265AI encoding, mainly used in PoE video recorders.

Main Features



Cloud Storage



H.265AI



Check Video by Face



Check Video by Vehicle
shape



APP



Support Multi-Lens
Devices



PoE



ONVIF



Lightning Protection

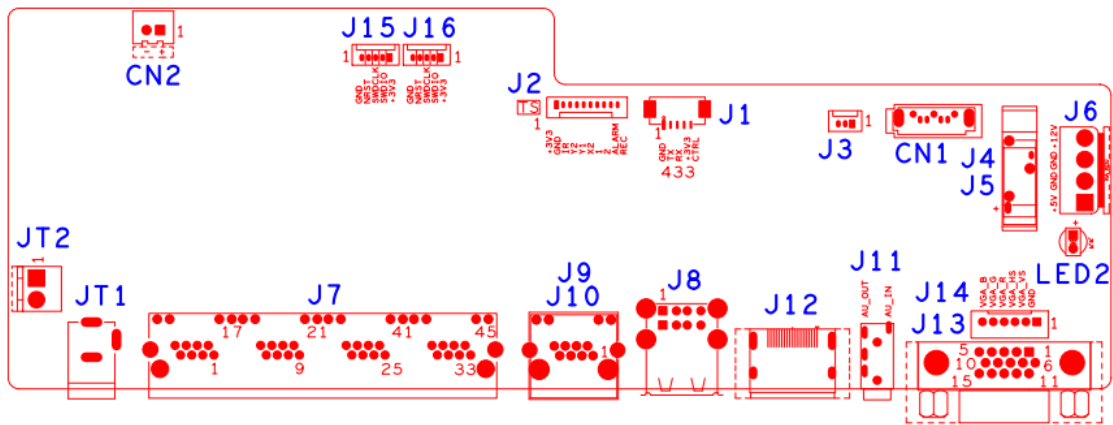
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1.Product Parameters

	Model	NBD89S04S-KL
System	Main processor	Mstar
	Operating System	Embedded Linux
	System resources	Simultaneous multi-channel real-time recording, playback, network operation, USB backup
Interface	Operator interface	16-bit true color graphic menu operation interface, support mouse operation
	Preview	1/2/4/6/8/9/10
Video	Video input (IP)	10*4K(4*PoE)(Maximum Supported Resolution up to 12MP)
	Video compression	H.265AI/H.265+(compatible with H.265/H.264)
	Display quality	Max:4K
	Playback quality	12M/4K/5M/4M/3M/1080P
	Decode	12M(1)/4K(1)/5M(1+1)/4M(2)/3M(2+2)/1080P(4+1)
	human shape/Face Detection	Support(Camera support is required)
Audio	Audio compression	G.711A
	Intercom	support
Record & playback	Recording mode	Alarm>Dynamic Detection>Timing
	Local playback	12M(1)/4K(1)/5M(1+1)/4M(2)/3M(2+2)/1080P(4+1)
	Search mode	Search by Time/Calendar/Event/Channel/Face
	Record storage	HDD/Network/Cloud
	Backup mode	Network backup, USB hard disk, USB burner, SATA burner
External interface	Video output	1ch VGA, 1ch HDMI HD output
	Audio I/O	1/1(3.5mm Audio output)
	Alarm I/O	0/0
	Network interface	1*RJ45 10M/100M Adaptive Ethernet port, 4* POE ports
	USB interface	2*USB2.0 ports
	HDD	1* SATA(Up to 14TB for each disk)
Other	ONVIF	Support
	Power supply	Input:DC48V,PoE Output:15.4W
	Power Consumption	<10W(Without HDD)
	Work environment	Temperature:0°C- + 55°C, Humidity:10% – 90%RH, Atm:86kpa – 106kp
	Dimension	203mm*70mm
	Weight	92g

2. Interface Description



sign	Function	No.	Interface Description
JT1	48V power input	1	48V
		2/3	GND
JT2	Power switch		
J7	4 POE network ports		
J10/J9	RJ45		
J8A	USB	1	+5
		2	DM_P3
		3	DP_P3
		4	GND
J8B	USB	1	+5
		2	DM_P2
		3	DP_P2
		4	GND
J12	HDMI		
J11	3.5mm audio interface	A	AUDIO_IN_MAIN
		B	GND
		C/D	AUDIO_OUT
J13	VGA		
J14	VGA extension interface	1	GND
		2	VGA_VS
		3	VGA_HS
		4	VGA_RED
		5	VGA_GREEN
		6	VGA_BLUE
CN2	12V output power supply	1	+12
		2	GND
J6	Hard disk power supply	1	+5_HD
		2/3	GND

		4	+12
CN1	SATA		
J3	DEBUG	1	PM_UART_RX
		2	PM_UART_TX
		3	GND
J5/J4	RTC battery holder	2	+3.3
		3	GND
J1	433	1	GND
		2	433_UART_TX
		3	433_UART_RX
		4	+3.3_433
		5	433_CTRL
J2	Front panel interface without microcontroller	1	+3.3
		2	GND
		3	FRONT_IR
		4	FRONT_Y2
		5	FRONT_Y1
		6	FRONT_X2
		7	FRONT_Y3
		8	FRONT_X1
		9	ALARM
		10	REC
J15/J16	DEBUG	1	+3.3
		2	SWDIO
		3	SWDCLK
		4	NRST
		5	GND

3. Electrical Parameters

3.1 Absolute Electrical Parameters

Parameter	Description	Min	Max	Unit
Ts	Storage temperature	-40	150	℃
VCC	Power supply voltage	44	57	V
Static electricity discharge voltage (Air)	TAMB-25℃	-8	8	KV
Static electricity discharge voltage (Contact)	TAMB-25℃	-4	4	KV

3.2 Working Conditions

Parameter	Description	Min	Max	Unit
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Ta	Working temperature	-20	65	℃
VCC	Power supply voltage	44	57	V

3.3 Port Protection Level

Port	Test Type	test condition	level	note
Power connector	Surge	1.2/50uS Combined Wave, 2 Ohm	±0.5KV	
RJ45	Surge (common mode)	10/700uS Combined Wave, 40 Ohm	±6KV	
	Surge (differential mode)	10/700uS Combined Wave, 40 Ohm	±2KV	
POE	Surge (common mode)	10/700uS Combined Wave, 40 Ohm	±3KV	
	Surge (differential mode)	10/700uS Combined Wave, 40 Ohm	±2KV	
HDMI	electrostatic	Contact discharge	±8KV	
		Air discharge	±15KV	
All other ports	electrostatic	contact discharger	±4KV	
		Air discharges	±8KV	