

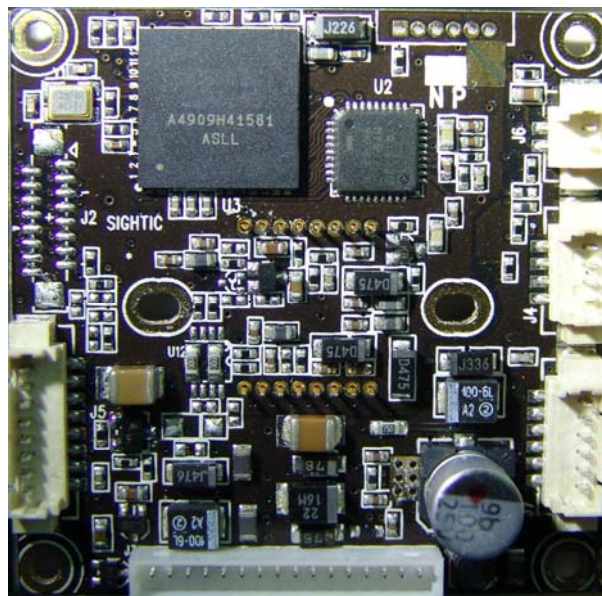
Board Camera

REV0

CUSTOMER	
DATE	2010年4月8日

CUSTOMER'S ACCEPTANCE SPECIFICATIONS	
MODEL	KP600

KP600 BOARD COLOR CAMERA



DRAFTING	EXAMINATION	DECISION
Jeffrey Sun		

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Record of Revision

Date	Version	Description of Revision
2010/4/8	1.00	<ul style="list-style-type: none">▶ Establishment▶

1. Features

WDR (Wide Dynamic Range)

By adopting a proprietary KP-600 DSP, the camera delivers clear, high quality pictures even in a backlight, by increasing exposure in dark areas while decreasing it in bright areas; a corrected image with clear details results.

High Resolution

By adopting a 410,0000 pixel sony CCD, the camera produces clear picture with a horizontal resolution of 600TV lines for color, and 700TV lines for B/W

Low light Sensitivity

By adopting unique digital processing technology, it can clearly distinguish the outline and color of a subject in 0.003 (0.6) Lux (Sens-up Off) low luminance environment.

DNR (Digital Noise Reduction)

By adopting unique digital processing technology, it can reduce the gain noise and produce clear, obvious images in low illumination environments.

DIS (Digital Image Stabilizer)

The DIS function compensates for vibration of the camera or a faint movement, to produce more stable pictures.

Motion Detection(8 Zone, Alarm output)

Since the camera detects motion and generates signals without any additional external sensors, you can monitor more efficiently by connecting an alarm device.

OSD

The camera support 8 local language OSDs. Korean, English, Spanish, French,

Additional Functions

SYNC(INT/LL),SENS-UP(X512),FREEZE,FLIP(H/V-REV),DZOOM,SHARPNESS
PRIVACY functions are provided.

Built In DC Motor Driver

You can drive Day & Night motor using DC motor driver built in KP600.

2. Warnings and Precautions

Do not expose the camera to rain, water or other types of liquids .



May cause a product malfunction

Never keep the camera face strong light directly.



May damage the CCD.

Do not drop the camera or subject them to physical shocks



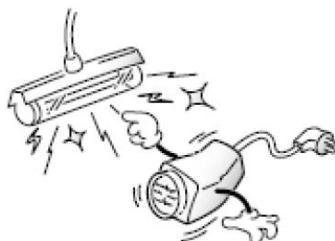
May cause a product malfunction

Do not install the camera in extreme temperature conditions.



Use only under temperature conditions between -10°C and $+50^{\circ}\text{C}$.

Do not install the camera under unstable lighting conditions



Severe lighting changes or flickering may hinder normal camera operation.

Board Camera

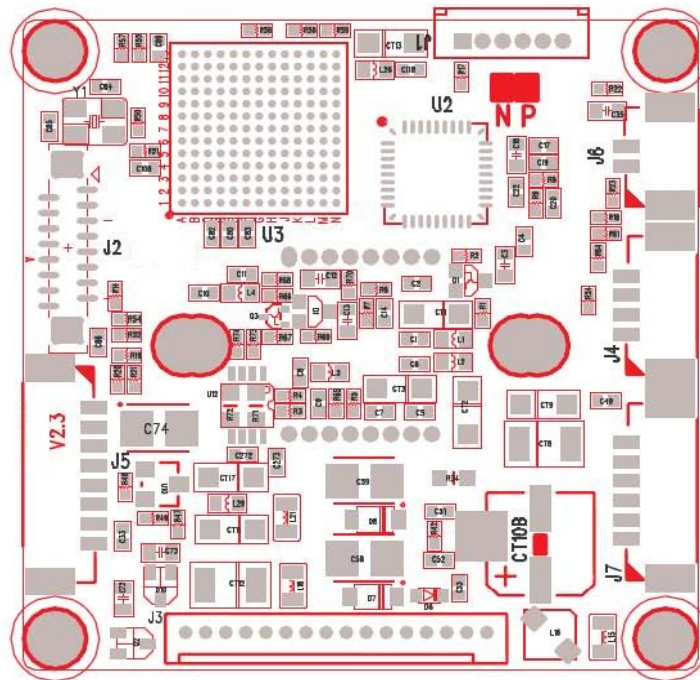
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3. KP600 Board Camera Specifications

SPECIFICATIONS		KP600N	KP600P
POWER		DC 12V ± 10%, Max. 2.0W	
C	Sensor	1/3 inch, Sony DS CCD	
	Total Pixels	811(H) x 508(V)	795(H) x 595(V)
C	Effective Pixels	768(H) x 494(V)	752(H) x 582(V)
D	Scanning System	2:1 Interlace	2:1 Interlace
Synchronization		Internal / Line Lock	
O.S.D		Available	
E	Dynamic Range	52dB(x128)	
	Backlight Compensation	WDR / BLC / OFF Selectable	
L	Resolution	COLOR : 600 TV Lines (Typ.)	
	S/N (Y signal)	52 dB (AGC Off,Weight ON)	
E	Min. illumination	Color Mode : 0.003 (0.6) Lux (Sens-up Off) B/W Mode : 0.0001 (0.1) Lux (Sens-up Off)	
E	White Balance	ATW/AWC/Manual/Outdoor(1800 ° K ~ 10,500° K)Indoor(4500 ° K ~ 8,500° K)	
C	Electronic shutter speed	1/60sec ~ 1/120,000sec	1/50sec ~ 1/120,000sec
T	Sense-up	AUTO/FIXED/OFF (selectable limit x2 ~ x512)	
	Gain Control	LOW,MIDDLE,HIGH,OFF Selectable	
R	3D-DNR	OFF/ON(1~ 63 Level Adjustable)	
	Motion Detection	ON/OFF (8 Zone, ALARM Output))	
I	PRIVACY	ON/OFF (8 Zone)	
	MIRROR(H-REV)	ON/OFF	
A	FLIP(V-REV)	ON/OFF	
	Freeze	ON/OFF	
L	SHARPNESS	ON/OFF (Level Adjustable)	
	D&N Selection	COLOR/Black&White/AUTO/EXT	
STABILIZER		ON/OFF	
Digital Zoom		ON(x6)/OFF	
Blemish Compensation		256 point(Even 128 Point, ODD 128 Point)	
IRIS Control		DC	
Operating Temperature/Humidity		-10℃ to + 50℃ /30% to 80%RH	
Storage Temperature/Humidity		-20℃ to + 60℃ /20% to 90%RH	
Dimension		42(H)×42(V)×1.2(T)mm	
Weight		12g	

* Design and specification are subject to change without notice.

4. Input-Output Signal

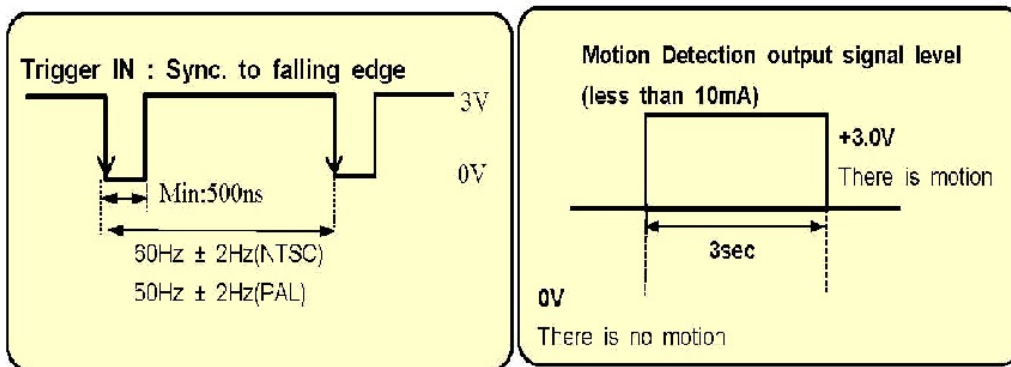


NO	J5	NO	J3	NO	J7	NO	J4	NO	J6
1	CDS_photo	1	GND	1	+12V	1	DAMP+	1	MOTOR A
2	D/N_IN	2	+12V	2	GND	2	DAMP-	2	MOTOR B
3	IR-LED	3	LED_ON	3	TRIGGER	3	DRV+		
4	GPIO	4	TRIGGER	4	GND	4	DRV-		
5	RX	5	VBS	5	GND	5			
6	TX	6	GND	6	VBS	6			
7	+3.3V	7	VBS EXTRA						
8	GND	8	KEY_DOWN						
		9	KEY_UP						
		10	KEY_SET						
		11	KEY_RIGHT						
		12	KEY_LEFT						
		13	MD_OUT						
		14	IRIS_OUT						
		15	IRIS_SELO						

5.Pin Description & Application

NO	CONNECTOR_PIN	NAME	DESCRIPTION
1	J7_#3	TRGGER_IN	External Line-Lock Pilse
2	J7_#13	MD-OUT	Motion Detection output signal level
3	J5_#5	RX	CMOS Level
4	J5_#6	TX	CMOS Level
5	J5_#1	CDS_IN	0V-3.3V
6	J5_#2	D&N_IN	Low: B/W(0V-0.8V), High: COLOR(2.0-3.3V)
7	J6_#1	MOTOR OUT1	DC Motor Driver Output
8	J6_#2	MOTOR OUT2	DC Motor Driver Output

*If you use RS485 CONTROL SIGAL and CMOS LEVEL' s TX,RX signal,RS485 communication is available. But the KP600 wasn' t built-in RS485 IC, additional external circuit need.



It encourage to use buffer for protecting a port

6. OSD Menu Structure

6-1. SETUP Menu

SETUP MENU	DEFAULT SET	MENU
①CAM NAME	OFF	ON/OFF
②LENS	DC IRIS	DC IRIS/MANUAL
③EXPOSURE	SHUTTER : -AGC : LOW SENS_UP : OFF	SHUTTER : A.FLK
		AGC : OFF / LOW / MIDDLE/ HIGH
		SENS_UP : OFF / AUTO (2 ~ 512 Level Selectable)
		RETURN
④DAY /NIGHT	COLOR	COLOR / B/W / AUTO / EXTERNAL DWELL TIME (5 ~ 60 SEC) DURATION TIME : SLOW / FAST
⑤ BACKLIGHT	OFF	WDR : LOW / MIDDLE / HIGH BLC : LOW /MIDDLE/ HIGH ECLPS:ECLPS LEVEL:1-5.
⑥WHITE BAL	ATW	COL-ROLL / PUSH / ATW MANUAL : RED / BLUE (Level Selectable)
⑦3D-DNR	ON	LIMIT (0 ~ 63 Level Selectable) / OFF
⑧EFFECTS	FREEZE : OFF V-REV : OFF H-REV : OFF DZOOM : OFF SHARPNESS : ON	FREEZE : ON / OFF
		V-REV : ON / OFF
		H-REV : ON / OFF
		DZOOM : ON / OFF (0 ~ 6 Level Selectable)
		SHARPNESS : ON / OFF(1 ~ 100 Level Selectable)
		RETURN
⑨SPECIAL	Refer to the next page	
⑩EXIT	-	Saves all the SETUP Menu and then exits.

6-2. Special Menu

SPECIAL MENU	DEFAULT SET	MENU
①MOTION DET	OFF	SENSITIVITY : AREA1 ~ AREA8 AREA MODE : ON/OFF SEL POS : L_TOP/R_TOP/L_BOTTOM/R_BOTTOM XPOS : 1 ~ 34 (Level Selectable) YPOS : 1 ~ 34 (Level Selectable) FILL SET RETURN
②PRIVACY	OFF	AREA SEL : AREA1 ~ AREA8 AREA MODE :TOP /DOWN/LEFT /RIGHT MASK COLOR : GREEN/RED/BLUE/BLACK/WHITE/GRAY TRANSP. : 0 ~ 3 (Level Selectable) RETURN
③LANGUAGE	ENGLISH	KOR/ENG/SPA//FR /RUSS/
④STABILIZER	OFF	OFF / ON
⑤SYNC	INT	INT LL
⑥MONITOR TYPE	CRT	CRT/LCD
⑦FACTORY REST	-	Set a manufacture state.
⑧ COM ADJ.	CAM ID : 0 BAUDRATE : 38400 PARITY : 8-N-1 RET PKT : ENABLE DISP CAM ID : OFF	CAM ID : ID Selectable BAUD RATE : 4800/9600/19200/38400/57600 PARITY : 8-N-1 RET PKT : ENABLE DISP CAM ID : OFF
⑨ RETURN	-	Return to the SETUP menu

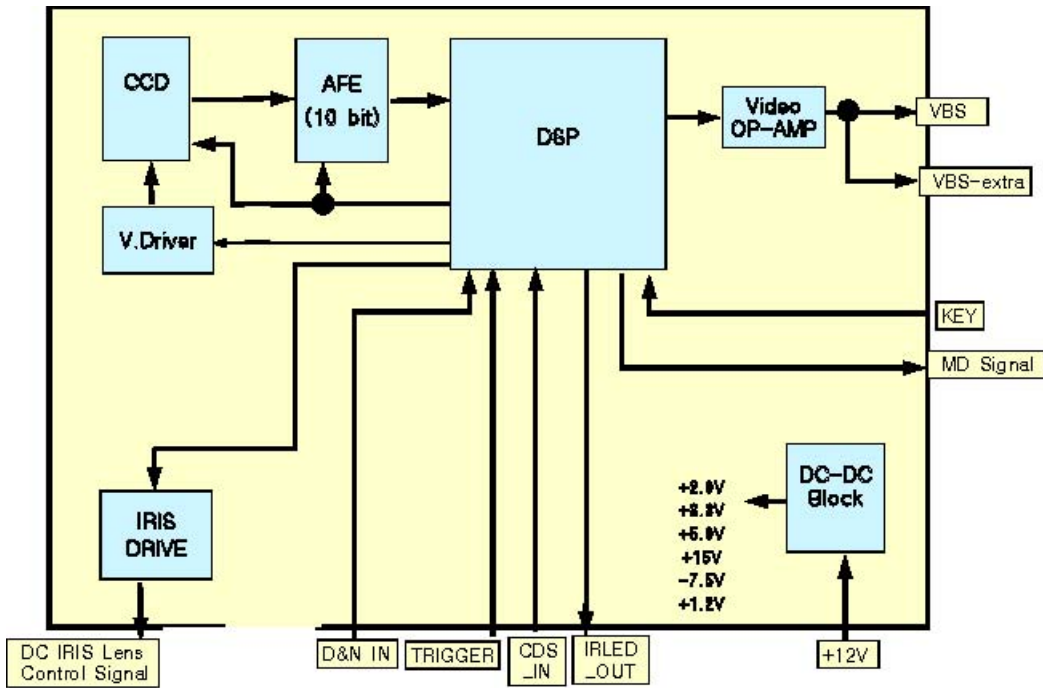
7. PROTOCOL

1) Communication Protocol

communication speed	4800, 9600, 19200, 38400, 57600bps,
start bit	1
data bit	8
parity bit	none / even / odd
stop bit	1

2) Available PROTOCOL : PELCO-D

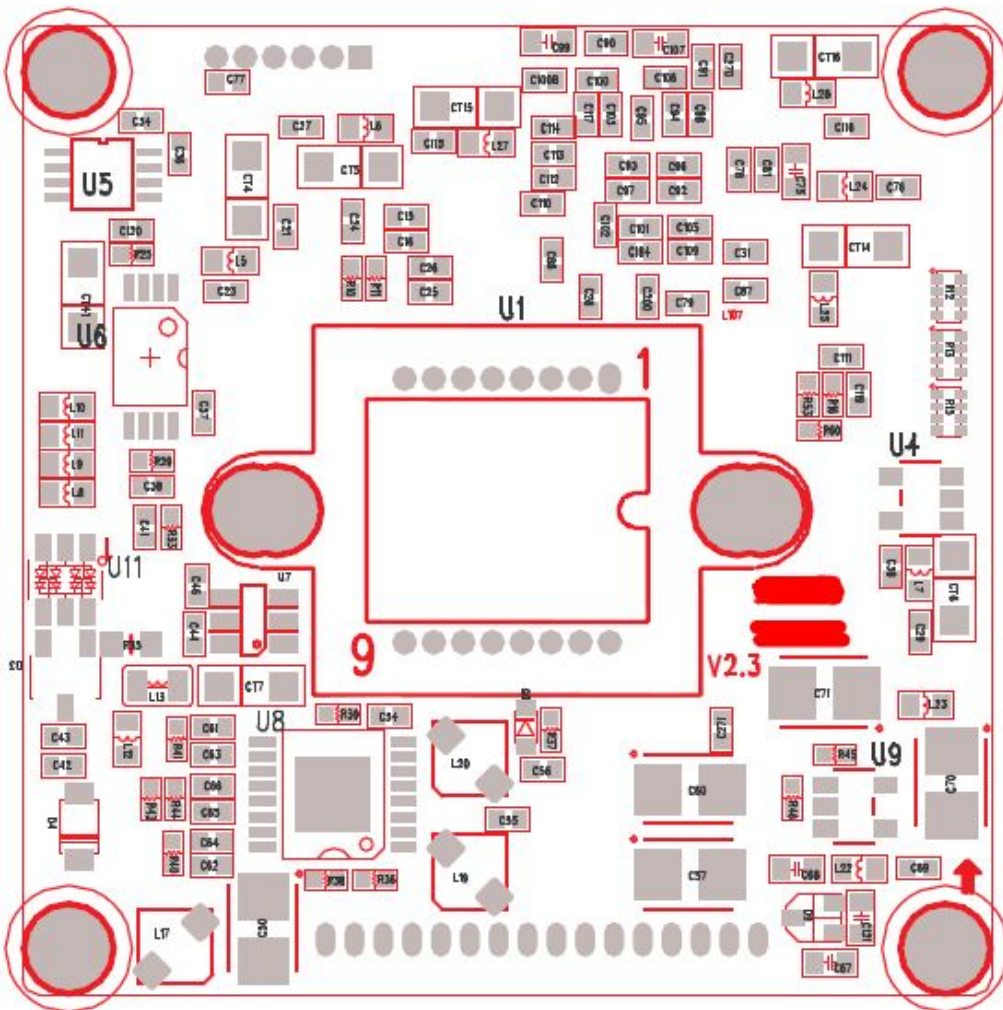
1. Block Diagram



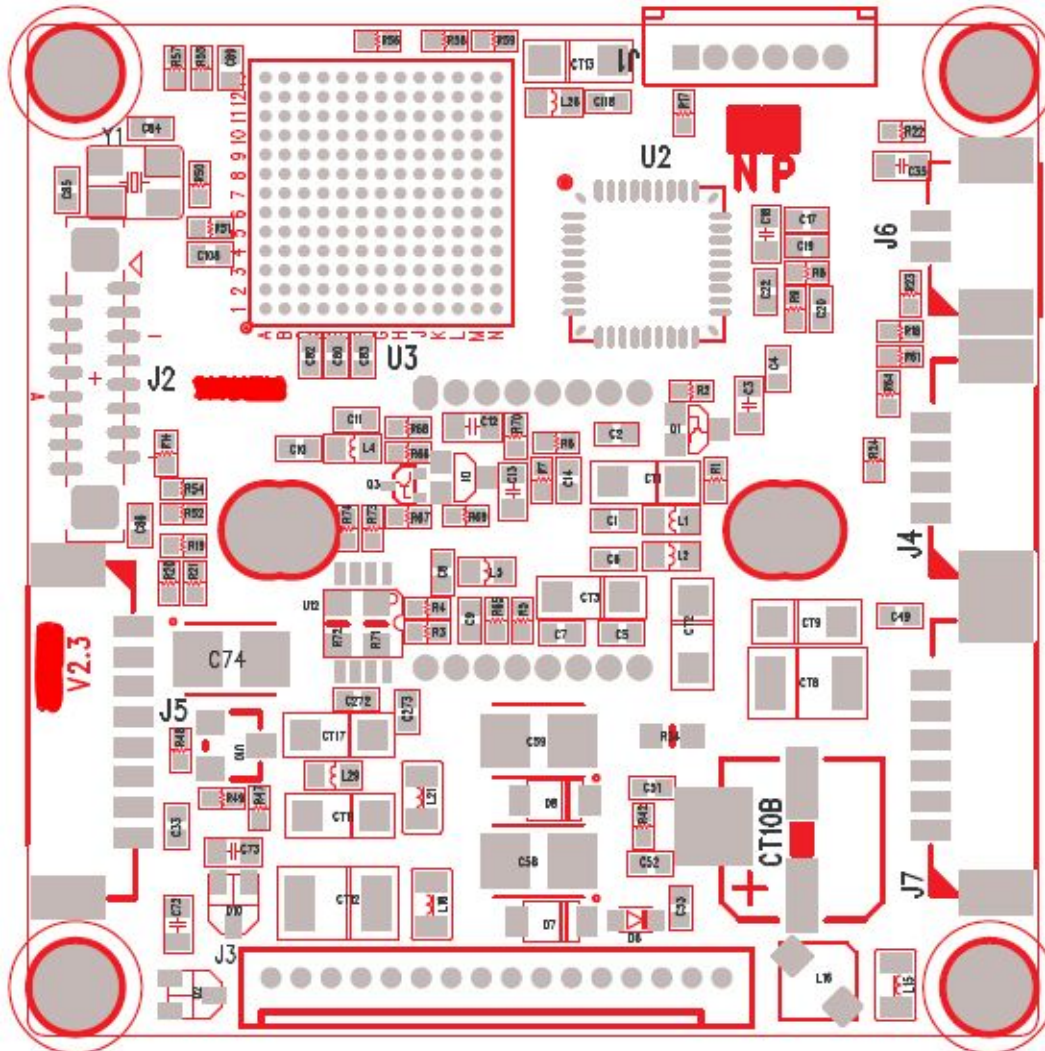
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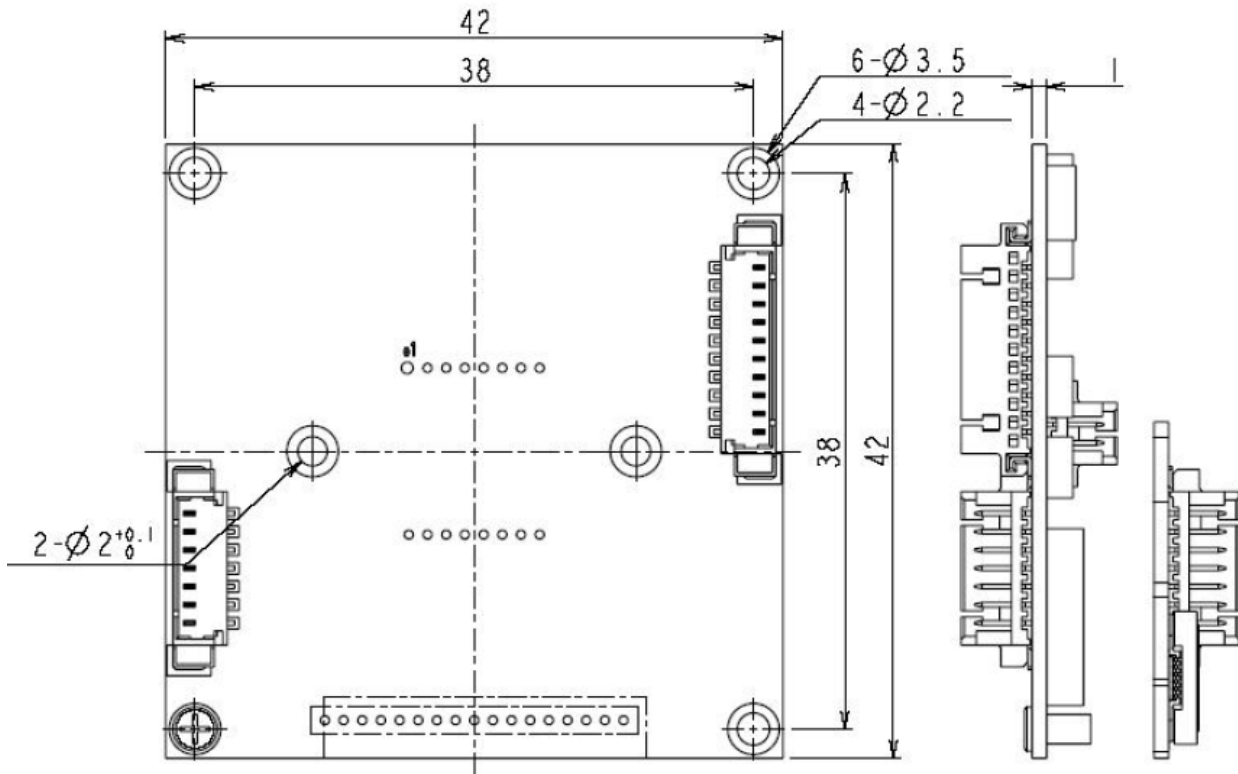
10. Parts Layout 1) SOLD SIDE



2).COMP SIDE



11. Dimension



12. Application

(1) Application Circuit

13. Changes and Modifications of this Product Specification

- Changes or modifications of this production specifications must be submitted, in writing, for mutual consent between both parties.