

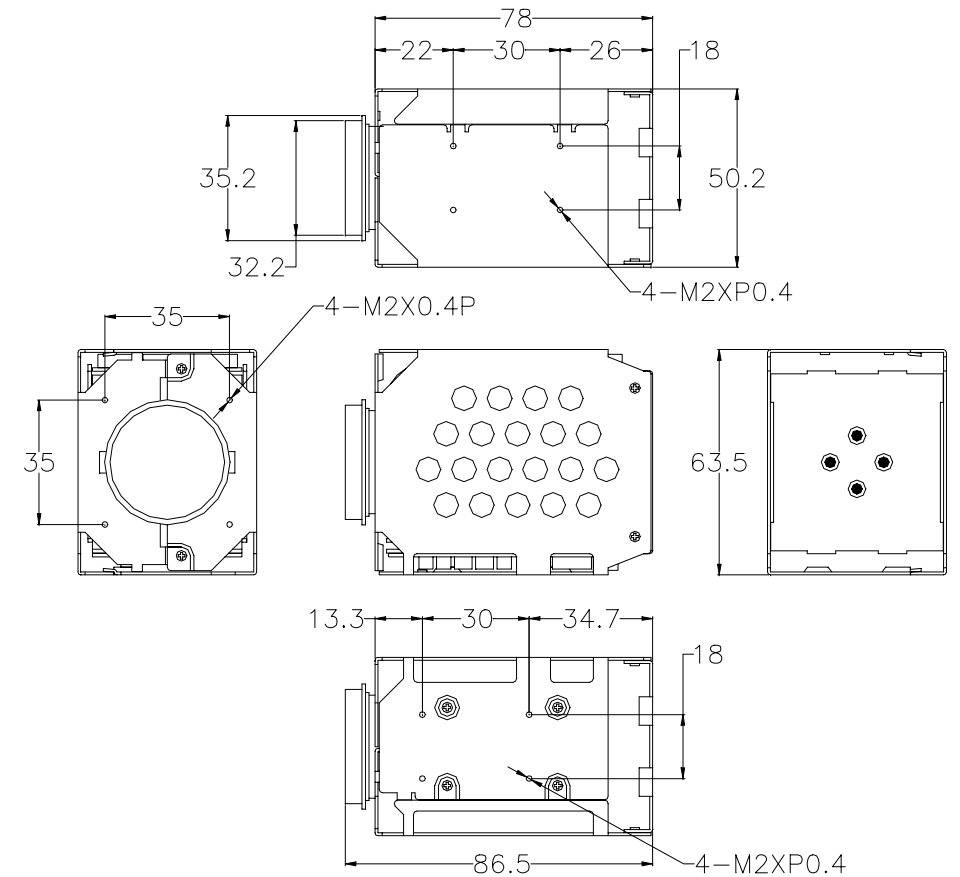
MTV-54G5 POWER ZOOM CAMERA INSTRUCTION

SPECIFICATION

MODE NO.	MTV-54G5N		MTV-54G5P
TV SYSTEM	NTSC		PAL
IMAGE SENSOR	1/4-inch CCD Image Sensor		
CCD TOTAL PIXELS	542(H) X 493(V)		537(H) X 597(V)
SCANNING SYSTEM	525 lines, 60 fields/sec		625 lines, 50 fields/sec
SYNC SYSTEM	Internal / VD-Lock		
MINIMUM ILLUMINATION	Typical	1.5 Lux (F1.6, 5600°K)	50IRE
	Start light Mode	0.03 Lux (F1.6, 5600°K)	50IRE
RESOLUTION	420 TVL		
S / N RATIO	48dB (MIN) / 52dB (TYP) (AGC OFF , r=1 , APC OFF , Y-OUT)		
WHITE BALANCE	ATW / AWB / FIX (Zero color rolling)		
WHITE BALANCE RANGE	3200 ~ 9600 °K		
B.L.C. FUNCTION	Super BLC, 48 zone BLC		
GAMMA CORRECTION	0.45 / 1		
AGC	AUTO (18dB max)		
ALC	AUTO / FIX		
IMAGE NEGATIVE	Select by OSD menu		
MOTION DETECT	48 zone (select by OSD)		
CROSS LINE	ON/OFF Select by OSD menu (position adj. by software)		
FREEZE FUNCTION	Alarm in trigger or Select by OSD		
ELECTRONIC SHUTTER	AES : 1/60(1/50) ~ 1/120,000 sec. / MANU : 8 step		
LENS	22X optical ZOOM LENS , F1.6~3.8, f=4.0~88mm		
	Diagonal	W(57° 38') / T(2° 50')	
	Hor.	W(47° 31') / T(2° 16')	
	Ver.	W(36° 32') / T(1° 42')	
ZOOM	220X (22X optical 10Xdigital)		
FOCUS	Auto / Manual		
POSITION	64 Position (Zoom , Focus)		
VIDEO OUTPUT	Composite & Y/C output 1.0Vp-p at 75 ohm		
CONTRAL FUNCTION	Dry Switch , RS-232C(Drive option) , OSD control		
OSD LANGUAGE SELECT	ENGLISH / CHINESS_Simp / JAPANESE		
COMMUNICATION BAUD RATE	9600 BPS		
OPERATION TEMPERATURE	-10°C TO 50°C		
OPERATIONAL HUMIDITY	within 85 % RH		
POWER SUPPLY	DC12V±1V / 3.6W(Max)		
DIMENSIONS	86.5 mm (L) X 50.2 mm (W) X 63.5 mm (H)		

* The specifications and appearance of the product may changed without notice.

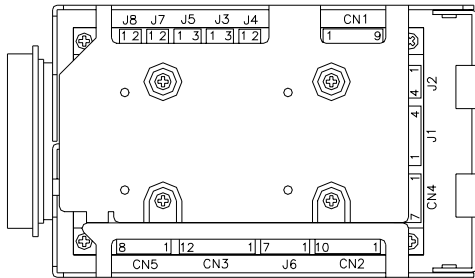
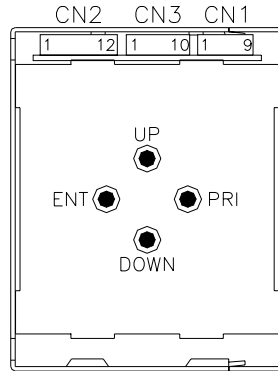
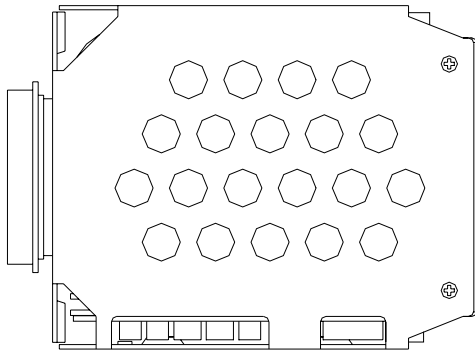
Dimension (Unit : mm)



Caution for Installation

1. Avoid places where there is direct sunlight. When using the camera outside.
2. Be careful, never let any water in this equipment.
3. Do not directly touch the CCD element. If necessary, use a soft cloth moistened with alcohol to wipe off the dust.
4. When the camera installs in dust or wet environment, please puts into the camera housing.
5. Be extra careful not to shake the camera.
6. Avoid places where temperatures exceed 50° C or more.
7. When any abnormalities occur, make sure to unplug the unit and contact your local dealer.
8. The camera are only operated with regulative adaptor DC 12V, AC to DC non-regulative adaptor may cause camera damaged.

CONNECTOR



MAIN BOARD (CONNECTOR TO OPTION BOARD)

CN1		CN2		CN3	
1	RS232C RXD (3.3V)	1	ALARM IN (L=Alarm)	1	GND
2	RS232C TXD (3.3V)	2	+5V (POWER OUT)	2	IRIS+/- (L=-, H=+)
3	VD-IN (3.3V)	3	GND	3	NEAR / INF (L=INF, H=NEAR)
4	+12V(10%) POWER IN	4	Position Bit-2	4	TELE / WIDE (L=WIDE, H=TELE)
5	GND	5	V-Rev. (L=ON / H=OFF)	5	RS-458_CS
6	C-out (Burst OUT)	6	H-Rev. (L=ON / H=OFF)	6	Position Bit-3
7	VBS (Video OUT)	7	Position Bit-1	7	Position Bit-4
8	Y-out (Y-signal OUT)	8	Position Bit-0	8	Position Bit-5
9	+3.3V (POWER OUT)	9	PRI (OSD BACK1)	9	MOTION OUT
* P1-P3 : H=3.3V ± 10% L=0V ± 10%		10	ENT (OSD ENTER)	10	MASK IN
		11	DW (OSD DOWN)	NOTE1	
		12	UP (OSD UP)		

NOTE1

CN3 - P2 : OPEN IS OFF, 0V~0.7V=L(-), 2.3V~3V=H(+)
 CN3 - P3 : OPEN IS OFF, 0V~0.7V=L(INF), 2.3V~3V=H(NEAR)
 CN3 - P4 : OPEN IS OFF, 0V~0.7V=L(WIDE), 2.3V~3V=H(TELE)

CN2-P4,P5,P6,P7,P8 & CN3-P6,P7,P8,P10 OPEN IS 3.3V
 H=3.3V ± 10% / L=0V ± 10%

OPTION BOARD

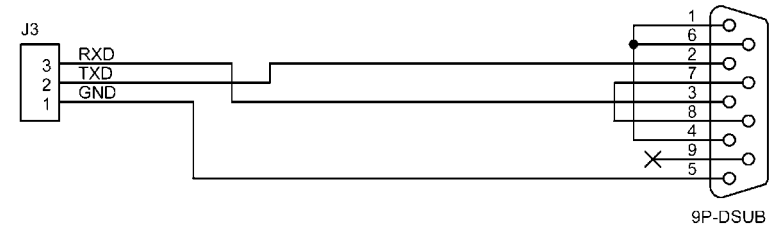
J1		J2		CN4	
1	+12V (POWER IN)	1	GND	1	ZOOM+
2	GND	2	GND	2	ZOOM-
3	VIDEO - OUT	3	Y - OUT	3	FOCUS+
4	GND	4	C - OUT	4	FOCUS-
X		X		5	IRIS+
				6	IRIS-
				7	-----
CONNECTOR TO LENS CONTROL BOX USE ±6V~±12V					

CN1		CN2		CN3	
P1~P9	MAIN - CN1	P1~P10	MAIN - CN3	P1~P12	MAIN - CN2
CONNECTOR TO MAIN BOARD					

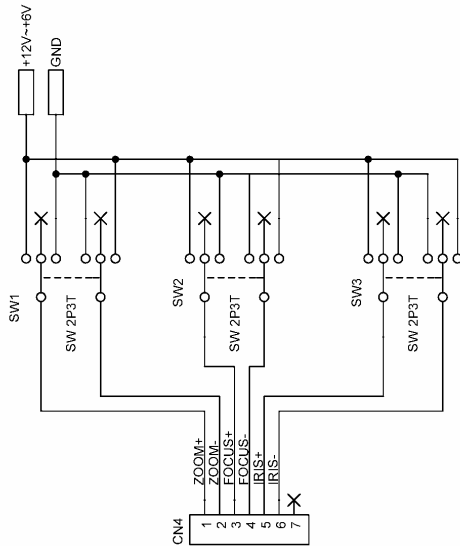
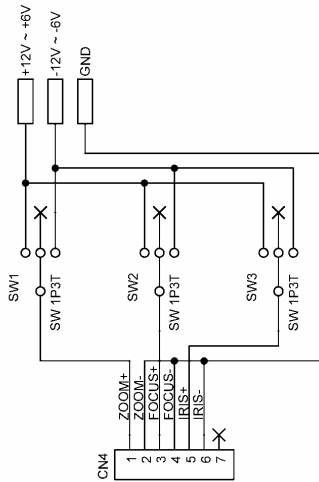
CN5		J6		J5		J3		J4		J7		J8	
1	PRI - (OSD)	1	GND	1	485+	1	GND	1	AC-IN	1	MOTION	1	MASK
2	ENTER - (OSD)	2	Position-Bit5	2	485-	2	TXD	2	AC-IN	2	GND	2	GND
3	DOWN - (OSD)	3	Position-Bit4	3	GND	3	RXD	AC Signal Input for LINE-LOCK		MOTION Det. OUTPUT		MASK ON/OFF INPUT	
4	UP - (OSD)	4	Position-Bit3	ONLY SELECT A KIND OF INTERFACE START UP									
5	H-REV - IN	5	Position-Bit2										
6	V-REV - IN	6	Position-Bit1										
7	ALARM - IN	7	Position-Bit0										
8	GND												

[ALARM-IN] trigger input can be select two function either "image-freeze" or "focut to set position", by OSD-menu.
 [CN5] Input-PIN connect to GND the function is active.

J5 & J3, Once permit a kind of interface start up. (Select by hardware resistor).



CN4 CONNECTOR



OSD FUNCTION SPECIFICATIO

[UP] : UP & RIGHT MOVE KEY
 [DOWN] : DOWN & LEFT MOVE KEY
 [ENTER] : ENTER KEY
 [PRI] : PRE CONFIRM KEY

Push [ENTER] key 2sec. to get into the MAIN menu.

Push [PRI] key 2sec. to leave menu.

If pushed [PRI] key, all set parameter data will be abandoned and return back to the previous menu page, this will occur while setting the parameter and without push [ENTER] key.

Push [UP], [DOWN] Two key at one time, screen will show COLOR BAR, want to recover normal display, Push again [UP], [DOWN] Two key at one time, screen will recover normal display

MAIN-PAGE

→	L	R	I	S																
	B	L	C																	
	A	G	C	:	S	E	N	S												
	C	O	L	O	R															
	A	P	C																	
	L	E	:	N	S															
	R	E	V																	
	P	O	S	I	T	I	O	N												
	I	D																		
	P	R	E	S	E	T														

NEXT PAGE

	M	A	:	R	K															
	G	A	M	:	M	A														
	P	O	W	E	R	:	O	N												
	M	O	T	:	I	O	N													
	M	A	:	S	K															
	O	S	I	D																
	Z	O	O	M	:	+	A	F												
	L	A	:	N	:	G	:	U	A	G	E									
	C	O	:	M	:	M	:	I	D											

Push [ENTER] 2 senc, get into the main menu

There are 19 items on the main menu, by up / down key to select item and push [ENTER] key to get into sub-item menu.

[01]. IRIS SELECT MEN

I R I S									
P E A K	O F F								P
	ON	A							
A L C	A U T O								
	FIX								
A E S	A U T O								
	FIX								
				1 / 1 0 0 0 0					

This is used to control the iris & shutter speed of the lens. It included 3 items "PEAK", "ALC", "AES".
 「PEAK」 is used to control the reaction of auto iris, which is based on the average light of picture signal or the light rate of the peak.
 「ALC」 is used to select AUTO or FIX. Adjust IRIS level
 「AES」 is used to select electronic shutter be AUTO or FIX function, at AUTO mode can be adjust AES level, at FIX mode can be selector shutter speed at below, [OFF], [1/100sec], [1/250sec], [1/500sec], [1/1000sec], [1/2000sec], [1/4000sec], [1/10000sec]
 After setting, push [PRI] key to go back to the main menu page.

[02]. BLC SELECT MENU

B L C									
O F F									
ON									
A R E A									
S E N S	L O W								H I

This is used to control "BLC" (Back Light Compensation),
 「BLC」 ON / OFF selector.
 Selector 「ON」 has 2 sub-items : 「AREA」, 「SENS」.
 「AREA」 : 48 BLC zones can be set separately. According to the mask area (BLC zone) signal to decide the iris and shutter speed.
 「SENS」 : Is used to enhance the BLC effect.
 After setting, push [PRI] key to go back to the main menu page.

[03]. AGC, SENS SELECT MENU

A G C	S E N S								
→ F r e e z e	→ F i e l d								
	F r a m e								
F r e e z e	→ O F F								
	ON								
P r i o r i t y	→ A G C								
	S E N S								
A G C	A U T O								
S E N S	A U T O								

This is used to select 「FREEZE」 and 「Priority」 & 「AGC」 and 「SENS」 function.
 「FREEZE」 type : can be select freeze image is 「Field」 or 「Frame」 display mode.
 ② 「FREEZE」 ON / OFF : ON (Freeze) / OFF(Unfreeze).
 ③ 「Priority」 : Select priority is AGC or SENS
 ④ 「AGC」 : To adjust auto gain control, 0dB, 2.25dB, 4.5dB, 6.75dB, 9dB, 11.25dB, 13.5dB, 15.75dB, 18dB, 9 steps adjustable.
 ⑤ 「SENS」 : For low light application: 0 Frame, 6 Frame, 12 Frame, 16 Frame, 18 Frame, 22 Frame, 24 Frame, 30 Frame, 36 Frame, 9 steps adjustable.
 After setting, push [PRI] key to go back to the main menu page.

[04]. COLOR SELECT MENU

C O L O R									
→ C O L O R	→ O F F								
	ON								
	A U T O								
W B	→ A T W	R							B
	A W B	R							B
G A I N	→ R - Y								
	B - Y								

This is used to control the color ON/OFF and white balance and the gain rate of RED & BLUE color.
 ① 「COLOR」 selector : OFF is monochrome image, ON is normal color image, AUTO is at low light AGC up, display image will be auto change to monochrome image.
 ② 「WB」 White balance control : ATW is Auto trace white balance, can be adjust offset level. AWB is One push white balance. Push [ENTER] key 「AWB」 will start flicker, until flicker stop it will lock the current color temperature at the same time.

- ③ 「GAIN」: The gain rate of R-Y & B-Y can be adjusted separately.
After setting, push [PRI] key to go back to the main menu page.

[05]. APC SELECT MENU

A P C															
→ H · G A I N - - - - - ■ - - - - -															
V · G A I N - - - - - ■ - - - - -															

This is used to enhance the compensation of the picture quality.

- ① 「H · GAIN」: Horizontal Compensation
- ② 「V · GAIN」: Vertical Compensation

After setting, push [PRI] key to go back to the main menu page.

[06]. LENS SELECT MENU

L E N S															
→ D i g i t a l Z O O M → O F F															
Z O O M S p e e d - - - - - ■ - - - - -															
F O C U S S p e e d - - - - - ■ - - - - -															
Z O O M W I D E T E L E															
F O C U S															
→ M A N U A L I N F N E A R															
A U T O															

This is used to control the motion of the lens, included "Digital ZOOM" ON/OFF and times set function.

- ① 「Digital ZOOM」 selector : OFF、X2、X4、X6、X8、X10.
- ② 「ZOOM Speed」: Set the speed of the zoom.
- ③ 「FOCUS Speed」: Set the speed of focus.
- ④ 「ZOOM」: Lens ZOOM adjust WIDE / TELE
- ⑤ 「FOCUS」: AUTO / MANUAL setting

After setting, push [PRI] key to go back to the main menu page.

[07]. REV. SELECT MENU

R E V															
→ P O S I / N E G A															
→ P O S I															
N E G A															
H · R E V → O F F															
O N															
V · R E V → O F F															
O N															

This is used to select image 「Positive」 and 「Negative」 & 「Horizontal Reverse」 and 「Vertical Reverse」 function.

- ① 「POS/NEGA」: Image positive & negative select.
- ② 「H.REV」: Horizontal Reverse (Mirror) ON/OFF
- ③ 「V.REV」: Vertical Reverse (Up-side down) ON/OFF

After setting, push [PRI] key to go back to the main menu page.

[08]. POSITION SELECT MENU

P O S I T I O N															
→ A L A R M N O = 0															
F r e e z e O F F															
O N															
P O S I T I O N															
→ N O = 6 4															
Z O O M S p e e d - - - - - ■ - - - - -															
F O C U S S p e e d - - - - - ■ - - - - -															
Z O O M W I D E T E L E															
F O C U S I N F N E A R															

This is used to set 「ALARM-IN」 function, either 「ALARM POSITION」 or 「IMAGE FREEZE」.

- ① 「ALARM NO.」: Set alarm position(1~64), if set to (0) alarm position is not enable.
- ② 「Freeze」: Set ON mode, 「ALARM-IN」 is freeze trigger input.
- ③ 「POSITION」: The alarm position have 64 steps (position) can be programed.

By this program, the zoom & focus may go to the exactly position where is programed.

After setting, push [PRI] key to go back to the main menu page.

