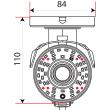
Semi Autofocus 2.8 ~ 12mm Lens, 120' IR Ranges

PRODUCT FEATURES

- Multi Format (TVI, CVI, AHD, 960H)
- Semi-Autofocus 2.8 ~ 12mm Lens
- Full HD 1080p Resolution
- 42 IR LED's / 120' IR Range
- Easy Access OSD Hatch
- Video Test Output & Cable
- True Day/Night Mechanical IR Cut Filter
- Digital Wide Dynamic Range
- Cable Management Mount
- Sense-up / Slow Shutter Speed
- UTC & Joystick Controllable OSD
- 12 Volt DC Power
- 3D Digital Noise Reduction
- 1/2.9" Sony CMOS Sensor
- IP66 Weatherproof



Model No.	HDMBIR120	HDMBIR120W	
Image Sensor	1/2.9" CMOS Sensor		
Total Pixels	1984 x 1225		
Active Pixels	1920 x 1080		
Resolution	1920 x 1080 (1080p)		
Scanning System	Progressive Scan		
OSD (On Screen Display)	Dual OSD Access: Built in Joystick Controlled / UTC Controlled (coaxial control)		
Digital WDR (Wide Dynamic Range)	Auto / Off / On - 0 ~ 8 Adjustable		
DNR (Digital Noise Reduction)	2D & 3D, Low, Middle, High, Off		
Video Output	TVI, CVI, AHD & 960H(Selectable via Dipswitch)		
Lens Type / Viewing Angle	TDN Semi Auto-Focus 2.8 ~ 12mm Lens / 28° ~ 90°		
Sense-up	Off / Auto (x2 ~ x30 Selectable)		
Shutter Speed	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30		
IR Cut Filter	Built in Mechanical		
Minimum Illumination	Color 0.1 Lux, B/W 0.05 Lux, IR LED ON 0.0 Lux		
IR LED Count / Range	42 IR LED's / 120' Range / 850nM		
S/N Ratio	More than 52dB		
Automatic Gain Control	0 ~15 Adjustable		
Sync System	Internal		
Gamma Characteristics	y = 0.45 typ		
White Balance	AWB / ATW / AWC->Set / Indoor / Outdoor / Manual		
Back Light Compensation	Off / BLC / HSBLC		
HBLC (High Back Light Compensation)	On / Off		
Day/Night	EXT / Auto / Color / B/W		
Mirror	Mirror / V-Flip / Rotate / Off		
Languages	English, French, Spanish, German, Italian (see OSD Menu for more)		
Brightness	0 ~100 Adjustable		
Motion Detection	On/Off (4 Zone Selectable)		
Privacy Mask	On/Off (4 Zone Selectable)		
Power Input	12VDC Only		
Power Requirement	150mA /600mA IR LED ON		
Overall Camera Dimensions	9.1" x 3.3" x 4.3" (231mm x 84mm x 110mm)		
Housing / Color	Gray	White	
Weight	1.6lb		
Operating Temperature	-14°F ~ 122°F		
Weatherproof Rating	IP66		



CAMERA DIMENSIONS / LINE ART



OSD,Dipswitch & Video Test Access

CAMERA CABLE CONNECTION

Insert power lead into power connector: be sure proper voltage is supplied and observe polarity.

Insert video lead into BNC connector: push, then twist to lock BNC connector in place.

Power Input

Video Input





Center : (+)

OSD CONTROL

Press Up/Down to Zoom In/Out

Press Left/Right for Fine Focusing

Press in on the OSD button to access the OSD menu and sub-menus

While in the OSD menu - press up, down, left and right to navigate/change OSD settings

FORMAT SELECTOR SWITCH

ON	ON	ON	ON
12	12	12	12
TVI	AHD	CVBS	CVI

PACKAGE CONTENTS

Mounting Hardware Packet, L-Style Wrench, Mounting Template

Northern*

HD-ANALOG ★

Norther

Vertical Angle Adjustment Semi Autofocus 2.8 ~ 12mm Lens, 120' IR Ranges

LENS ADJUSTMENT

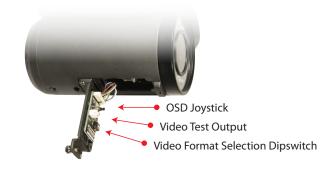
- (1) Loosen Screw on the OSD Panel at the bottom of Housing.
- (2) Open OSD Panel.
- (3) Press U/D for Zoom In/Out.

Move to Desired Zoom Level & Stop Pressing Joystick— The Lens Will Focus Automatically.

If Image is blurred, se L/R to Fine Focus or Press U/D again to AutoFocus.

Lens Adjustment Can Also Be Performed via UTC Enabled DVR.

LENS & IR ADJUSTMENT ACCESS



Northern *

OSD MENU TREE

MAIN MENU			NR		
MAIN MENU I.LENS DC 2.EXPOSURE Image: Comparison of the second se	1 LENS 2 EXPOSURE 3 BACKLIGHT 4 WHITE BAL 5 DAY&NIGHT 6 NR 7 SPECIAL 8 ADJUST	MANUAL/DC# # OFF/BLC#/INSBLC# ATW/AWB/AWC-SET/INDOOR/OUTDOOR/ MANUAL# AUTO#/COLOR/B/W#/EXT# # # #	NR 1. 2DNR MIDDLE 2. 3DNR MIDDLE 3. RETURN RET J SPECIAL SPECIAL	1 2DNR 2 3DNR 3 RETURN	HIGH/MIDDLE/LOW/OFF HIGH/MIDDLE/LOW/OFF RET#
8. ADJUST J 9. AF J 10. EXIT SAVE&END J	9 AF 10 EXIT	# # SAVE&END#/RESET#/NOT SAVE#	1. CAM TITLE ON 2. D-EFFECT J 3. MOTION OFF 4. PRIVACY OFF 5. LANGUAGE ENG	1 CAM TITLE 2 D-EFFECT 3 MOTION 4 PRIVACY 5 LANGUAGE	OFF/ON# FREZE/MIRROR/NEG.IMAGE/RETURN OFF/ON# OFF/ON# ENG#/CHN1#/CHN2#/GER#/FRA#/ITA#/SPA# POL#/RUS#/POR#/NED#/TUR#/KOR#/JPN#/
DC LENS MODE 1. MODE INDOOR 2. IRIS SPEED IMMUMUMUM 8 3. RETURN RET-I	1 MODE 2 IRIS SPEED 3 RETURN	INDOOR/OUTDOOR# 0-15 RET#	6. DEFECT	6 DEFECT 7 RS485 8 RETUTN	HEB#/ARB# # RET#
EXPOSURE EXPOSURE	1 SHUTTER	AUTO/ 1/30 / 1/60 / FLK / 1/240 / 1/480 /	1. FREEZE ON 2. MIRROR OFF 3. NEG. IMAGE OFF 4. RETURN RET	1 FREEZE 2 MIRROR 3 NEG.IMAGE 4 RETURN	OFF/ON OFF/MIRROR/V-FLIP/ROTATE OFF/ON RET#
1. SHUTTER AUTO 2. AGC minimummin 7 3. SENS-UP AUTO-I 4. BRIGHTNESS minimummin 56 5. D-WDR OFF 6. DEFOG OFF 7. RETURNL RET -I	2 AGC 3 SENS-UP 4 BRIGHTNESS 5 D-WDR 6 DEFOG 7 RETURN	1/1000/1/2000/1/5000/1/10000/1/50000/ X2/X4/X6/X8/X10/X15/X20/X25/X30 0-15 AUTO# 1-100 OFF/AUTO/ON# OFF/AUTO/# RET#	DEFECT 1.LIVE DPC ON 2. WHITE DPC ON 3. BLACK DPC ON 4. RETURN RET	1 LIVE DPC 2 WHITE DPC 3 BLACK OPC 4 RETURN	OFF/ON OFF/MIRROR/V-FLIP/ROTATE OFF/ON RET#
DEFOG 1. POS/SIZE 2. GRADATION 3. DEFAULT 4. RETURN RET 4. RETURN	1 POS/SIZE 2 GRADATION 3 DEFAULT 4 RETURN	POSITION/SIZE/RETAGAIN 0-2 # RET#	ADJUST 1.SHARPNESS AUTO-I 2.MONITOR LCD-I 3.LSC ON 4.VIDE0 OUT PAL 5.RETURN REI-I	1 SHARPNESS 2 MONITOR 3 LSC 4 VIDEO OUT 5 RETURN	OFF/AUTO# LCD#/CRT# OFF/ON NISC/PAL RET#
BACKLIGHT			O. REFORM		
1.LEVEL NIDDLE 2.AREA - 3.DEFAULT - 4. RETURN RET	1 LEVEL 2 AREA 3 DEFAULT 4 RETURN	MIDDLE/LOW/HIGH POSITION/SIZE/RETAGAIN # RET#	AF AF 1. AF MODE SEMI 2. ONE SHOT AF 3. TON AF ON	1 AF MODE 2 ONE SHOT AF 3 TDN AF	SEMI/AUTO/MANUAL # OFF/ON
DAY&NIGHT			4. LENS INIT +4 5. RETURN RET +4	4 LENS INIT 5 RETURN	# RET#
B/W 1. BURST OFF 2. IR SWART OFF 3. RETURN RET -	1 BURST 2 IR SMART 3 RETURN	OFF/ON OFF/ON# RET#	EXIT		
D&N AUTO 1DN (AGC) Immunumun 18 2DN (DELAY) Immunumum 58 3ND (AGC) Immunumum 6 4D (DELAY) Immunumum 45 5RETURN RET	1 DN(AGC) 2 DN(DELAY) 3 ND(AGC) 4 ND(DELAY) 5 RETURN	1-255 0-60 1-255 0-60 RET#	EXIT 1. EXIT RESET -	1 EXIT	SAVE&END#/RESET#/NOT SAVE#