

RHPQ-945

**1/3" High Resolution Color/Monochrome
Day/Night CCD**

**1/3" Color Sony CCD
42mm x 42mm Single Board Camera
Color/Monochrome Day/Night
Frame Integration
Vari-Focal Auto-Iris Day-Night Lens
Internal or External Synchronization
12 Volt DC Operation
Horizontal & Vertical Image Flip Function
Parameters Controllable Via Connector:**

- External Sync
- Frame Integration
- Color Bar Output
- Day/Night Mode
- Vertical Flip
- Horizontal Flip
- Back Light Compensation
- Auto White Balance
- Auto Gain Control
- Fixed Shutter

520 TV Lines

**Vari-Focal Auto-Iris
Day/Night**

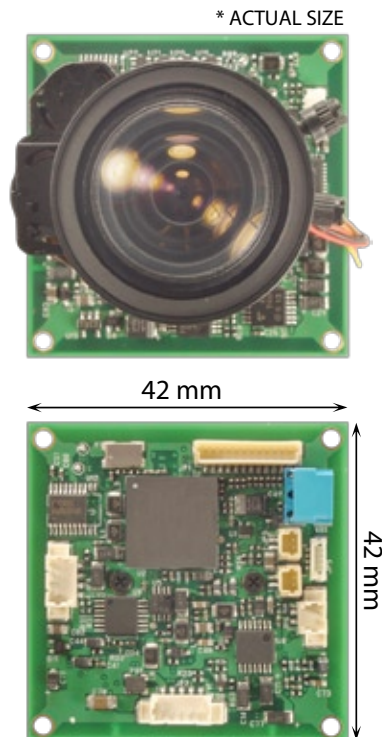
12V DC



**RHPQ-945N (NTSC)
RHPQ-945P (PAL)**

Specifications	RHPQ-945N (NTSC)	RHPQ-945P (PAL)
Image Sensor	1/3" Inter-line Type CCD Image Sensor / SONY (ICX408AK NTSC - ICX409AK PAL)	
Scanning System	2 : 1 Interlace	
Total Number of Pixels	811 (H) x 508 (V)	795 (H) x 596 (V)
Effective Pixel Elements	768 (H) x 494 (V) Approx. 380k Pixels	752 (H) x 582 (V) Approx. 470k Pixels
Synchronization	Internal or External Sync - Line Pulse (for Line Lock)	
Video Output	Composite / 1 Vp-p 75 Ω	
Burst Level	0.286 Vp-p	
Horizontal Resolution	More than 520 TV Lines	More than 520 TV Lines
Standard Scene Illum.	1000 Lux @ F4.0 - 390 Lux F2.5 - 90 Lux @ F1.2	
Min. Illumination	0.015 lux (Video Output 50%, AGC ON, F1.4) at Frame Integration 8x	
Lens Options	* No Lens * Fixed 5.6mm/F2.5 (48° HFOV) * Vari-Focal Auto-Iris Day/Night. 3.8mm to 9.5mm/F1.2 (65° to 35° HFOV) * Removes Optical Low Pass Filter (OPLF) in night operation	
S/N Ratio	45 dB or better (Gamma=1, AGC=OFF, Aperture=OFF, Luminance Signal)	
Electronic Iris (Auto)	1/60 ~ 1/120,000 Sec. or Fixed at 1/120th Sec. Via Connector	1/50 ~ 1/120,000 Sec. or Fixed at 1/100 Sec. Via Connector
IRIS Control	Electrical Iris & or Auto Iris Lens (DC Control)	
Horizontal Drive Freq.	15.734 kHz (NTSC)	
Vertical Drive Freq.	59.94 Hz (NTSC)	
Gamma	0.45	
AGC (Auto Gain Control)	+ 18 dB Max / ON or OFF Via Connector	
BLC (Back Light Comp.)	ON or OFF Via Connector	
White Balance	ATW or AWB (one push) Via Connector	
Power Requirements	DC 12V +/- 10%	
Current Consumption	150 mA (at DC 12V)	
Storage Temp. Humidity	-20°C ~ +60°C - Max. 90% (No Condensation)	
Operating Temp. Humidity	-5°C ~ +45°C - Max. 80% (No Condensation)	
Dimensions	42mm(W) x 42mm(L) x ~60mm(H) w/Vari-Focal Lens	
Weight	Approx. 12g without lens	

Dimensions 42 x 42mm

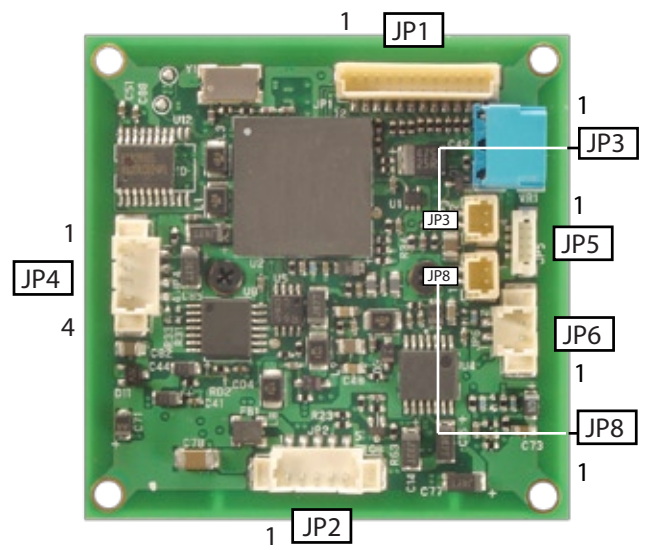
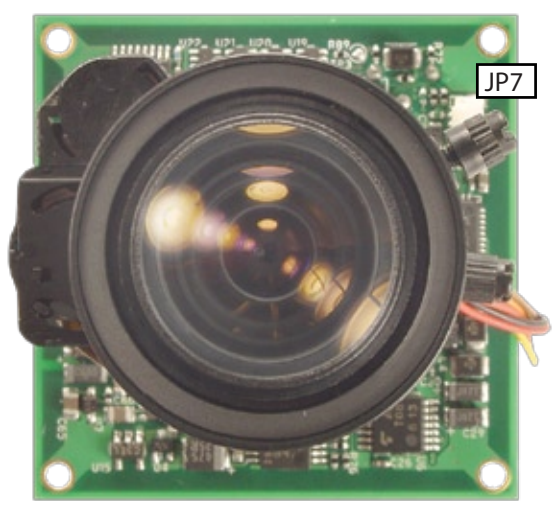


* Actual photo size may vary depending on print scaling

** Specifications and availability of products are subject to change without notice



RHPQ-945 - Connections



- JP1** (Open - GND)
- | | |
|----------------|--|
| 1. GND | |
| 2. INT. / L.L. | (Int. - L.L.) |
| 3. Sens UP | (On - Off) |
| 4. Day/Night | (On - Off) |
| 5. Color-Bar | (Video - Color Bar) |
| 6. V-Mirror | (Off - On) |
| 7. H-Mirror | (Off - On) |
| 8. BLC | (Off - On) |
| 9. ATW/AWB | (ATW - AWB) |
| 10. AGC | (On - Off) |
| 11. ALC | (A/I Only - Flickerless with A/I) |
| 12. ALC | (A/I Only - Electronic Shutter no A/I) |
- A/I = Auto Iris

- JP2** - I/O Connector
- +12V In
 - GND (Main)
 - Monitor Out (Optional)
 - Composite Video Out
 - Video GND

- JP3** - Line-Lock Pulse
- GND
 - Line Pulse

- JP6** - Day & Night Filter ON/OFF
ON/OFF (to lense)

- JP8** - Day/Night Select Input
- CMPLS D/M (Open:Auto)
 - GND

- JP7** - Factory Use

- JP4** - DC-Iris Connector
- Dump -
 - Dump +
 - Drive +
 - Drive -

- JP5** - Serial Connector
- +3.3V Out
 - Rx
 - Tx
 - GND



RHPQ-945
* Shown with Vari-focal Auto-Iris
Day & Night Lens
(F1.2, f=3.8 - 9.5mm)