

Custom Solutions Available

Overview

An IR cut filter is a color filter blocking the infrared light. Using a color camera to achieve realistic colors in white light requires an IR-cut filter. The color spectrum seen by the human eye is quite limited compared to the spectrum seen by a CCD camera. Especially, in the near infrared region of the spectrum the difference in sensitivity is significant. This is important to know since many light sources, including the sun, emit infrared light. A CCD color camera in daylight without an IR-cut filter will therefore see a significant amount of infrared light resulting in strange colors. Another reason for using an IR-cut filter is the limited color correction for many lenses. It is difficult to design imaging optics covering both the visible spectrum and the near infrared spectrum at the same time. Therefore, many lenses have different depth of focus for the visible and the infrared spectrum. The IR-cut filter cuts away a significant amount of the overall collected light and thereby affects the sensitivity in a negative way. The IR-cut filter maintains true color in the day time and monochrome at night.



F2IRC-B3 series

- 50 Feet (15m) or 82 Feet (25m)
- 8 LEDs Illuminator for 850nm or 940nm
- 3.8 ~ 9.5mm external Varifocal Lens adj.
- Auto-Iris Lens
- Focusing beam 20~30°/LED, 8°/LED
- Soread beam 180°/LED. 180°/8 LEDs

F2IRC-C1 series

- View up to 98 Feet (30m)
- 3.8 ~ 9.5mm external Varifocal lens adj.
- Auto-Iris Lens
- 1/3" CCD



General Characteristics

Signal to Noise	More than 50dB (AGC on)
Gamma Correction	0.45
IR Wavelength	850nm or 940nm
IR Status	< 10 lux by CDS auto control
LED Life	> 20,000 hours
LED Type	AlGaInP, High Performance



F2IRC-X series

- View up to 114 Feet (35m)
- 3.80~9.5mm, 9~22mm external Varifocal Lens adj.
- Auto-Iris Lens
- 1/3" CCD, 380 TVL or 520 TVL
- 8 LEDs Illuminator for 850nm or 940nm
- Vandal Proof

■ 50' IR DISTANCE (15M) - Covert

Specifications

Models	F2IRC-B3-15C-C		F2IRC-B3-15D-C	
	F2IRC-X-15C-C		F2IRC-X-15D-C	
IR Wavelength	940nm		940nm	
IR Distance	50' (15M)		50' (15M)	
Horizontal Resolution	380 TV Lines		480 TV Lines	
Image Sensor (CCD Type)	1/3" Extra View		1/3" Extra View	
Effective Pixels (H x V)	NTSC	537 x 505	811 x 508	
	PAL	537 x 597	795 x 596	
Sensitivity (IR off / IR On)	0.01 lux / 0 lux		0.05 lux / 0 lux	
Scanning System	NTSC: 525 lines, 2:1 interlace		PAL: 625 lines, 2:1 interlace	
Scanning Frequency (H x V)	NTSC: 15,734 Hz x 60 Hz		PAL: 15,625 Hz x 50 Hz	
Electronic Shutter	NTSC: 1/60 ~ 100,000 sec.		PAL: 1/50 ~ 100,000 sec.	
Signal to Noise	More than 50dB (AGC on)			
Gain Control	Automatic (AGC)			
White Balance	Auto ATW 2500 ~ 9500°K			
BLC	Auto			
SYNC System	Internal			
Lens & Focus	3.8mm ~ 9.5mm via external manual focus control / auto-iris lens			
Video Output	Composite 1.0 Vp-p at 75 ohm			
IR Illuminator	8 LEDs			
IR View Angle / Beam Spread	50° ~ 80° / 30° per LED			

■ 82' IR DISTANCE (25M) - Semi Covert

Specifications

Models	F2IRC-X-25A	F2IRC-B3-25C	F2IRC-B3-25D	F2IRC-X-25B
		F2IRC-X-25C	F2IRC-X-25D	
IR Wavelength	850nm	850nm	850nm	850nm
IR Distance	82' (25M)	82' (25M)	82' (25M)	82' (25M)
Horizontal Resolution	380 TV Lines	380 TV Lines	480 TV Lines	520 TV Lines
Image Sensor (CCD Type)	1/3" Sony	1/3" Extra View	1/3" Extra View	1/3" Sony
Effective Pixels (H x V)	NTSC	537 x 505	811 x 508	811 x 508
	PAL	537 x 597	795 x 596	795 x 596
Sensitivity (IR off / IR On)	0.05 lux / 0 lux	0.01 lux / 0 lux	0.05 lux / 0 lux	0.06 lux / 0 lux
Scanning System	NTSC: 525 lines, 2:1 interlace		PAL: 625 lines, 2:1 interlace	
Scanning Frequency (H x V)	NTSC: 15,734 Hz x 60 Hz		PAL: 15,625 Hz x 50 Hz	
Electronic Shutter	NTSC: 1/60 ~ 100,000 sec.		PAL: 1/50 ~ 100,000 sec.	
Signal to Noise	More than 50dB (AGC on)			
Gain Control	Automatic (AGC)			
White Balance	Auto ATW 2500 ~ 9500°K			
BLC	Auto			
SYNC System	Internal			
Lens & Focus	3.8mm ~ 9.5mm via external manual focus control / auto-iris lens			
Video Output	Composite 1.0 Vp-p at 75 ohm			
IR Illuminator	8 LEDs			
IR View Angle / Beam Spread	50° ~ 80° / 30° per LED			

■ 98' IR DISTANCE (30M) - Semi Covert

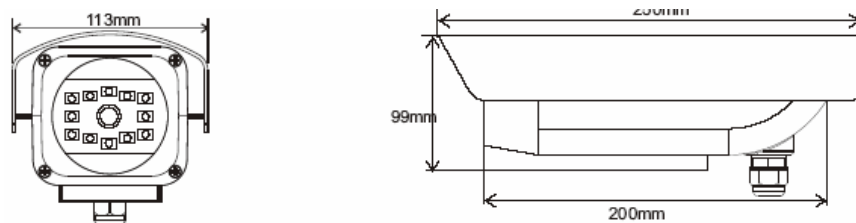
Specifications

Model	F2IRC-C1-30B	F2IRC-C1-30C	F2IRC-C1-30D
IR Distance	98' (30M)	98' (30M)	98' (30M)
IR Wavelength	850nm	850nm	850nm
Horizontal Resolution	520 TV Lines	380 TV Lines	480 TV Lines
Image Sensor (CCD Type)	1/3" Sony	1/3" Extra View	1/3" Extra View
Effective Pixels (H x V)	NTSC	768 x 494	811 x 508
	PAL	752 x 582	795 x 596
Sensitivity (IR off / IR On)	0.06 lux / 0 lux	0.06 lux / 0 lux	0.06 lux / 0 lux
Scanning System	NTSC: 525 lines, 2:1 interlace		PAL: 625 lines, 2:1 interlace
Scanning Frequency (H x V)	NTSC: 15,734 Hz x 60 Hz		PAL: 15,625 Hz x 50 Hz
Electronic Shutter	NTSC: 1/60 ~ 100,000 sec.		PAL: 1/50 ~ 100,000 sec.
Signal to Noise	More than 50dB (AGC on)		
Gain Control	Automatic (AGC)		
White Balance	Auto ATW 2500 ~ 9500°K		
BLC	Auto		
SYNC System	Internal		
Lens	3.8mm ~ 9.5mm / F1.2, auto-iris		
Video Output	Composite 1.0 Vp-p at 75 ohm		
IR Illuminator	12 LEDs		
IR View Angle / Beam Spread	50° ~ 80° / 30° per LED		

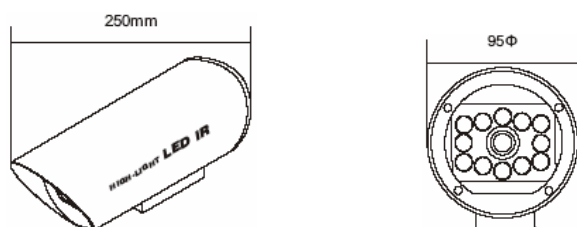
Schematic



F2IRC-B3 series



F2IRC-B3 series



F2IRC-C1 series

Physical/Environmental Characteristics

Model	F2IRC-B3 series	F2IRC-X series	F2IRC-C1 series
Dimensions (mm)	79 (Φ) x 139 (L)	80 (W) x 90 (H) x 250 (L)	95 (Φ) x 250 (L)
Weight	1.464 lbs / 0.52 kg	3.31 lbs / 1.5 kg	2.91 lbs / 1.32 kg
Power Consumption	IR on	280mA	460mA
	IR off	100mA	100mA
Power Supply	12V DC	12V DC	12V DC / 24V AC / 85 ~ 260V AC (50/60Hz)
Construction	Weatherproofed, made of Aluminum with sunshield		
Heat Dissipation	Special metal board device		
Protection Class	IP 66 classification		
Operating Temperature	-4°F ~ 140°F / -20°C ~ 60°C		
Storage Temperature	-22°F ~ 158°F / -30°C ~ 70°C Humidity: 0 ~ 95% RH		