

FEATURES

- 576 pixels per line
- Fully automatic operation over 9 decades of illumination (with T350 auto-iris lens)
- Operation from dc supply in the range 10 to 16 V
- Immune to overexposure

APPLICATIONS

- Night-time surveillance
- Scientific Imaging
- Biomedical Imaging

INTRODUCTION

The L3C65P Series is part of the new L3Vision range of very high sensitivity CCD cameras. This 1" format, monochrome, camera is capable of operation down to overcast starlight (100 µlx) illumination levels.

GENERAL DATA

Sensor

	L3C65-06P	L3C65-05P	
Imaging area.....	11.52 x 8.64		mm
Pixel size.....	20 x 30	20 x 35.5	µm
Image format.....	576 x 288	576 x 244	pixels
Sensor temperature ...	-5 °C factory set point, adjustable from -10 to +5 °C		
Spectral range.....	400 to 1060		nm
Auto-level control:.....	10 ⁵ to 10 lx	Auto-iris	
	10 lx to 15 mlx	CCD gain	
	15 mlx to 100 µlx	AGC	

Note: Figures are typical scene illumination – see graph on page 2.

Electrical

Power input.....	6 to 12	W
(depending on ambient temperature and CCD setpoint; see graph on page)		
Input voltage.....	10 to 16	V
Peak current.....	800	mA
Internal fuse.....	1 A type T (socketed) on logic PCB 1 A type T (socketed) on Peltier control PCB	
Video output:		
L3C65-06P.....	CCIR	
L3C65-05P.....	RS170	
Source impedance.....	75	Ω

Mechanical

Dimensions.....	see outline
Weight.....	870 g



TYPICAL PERFORMANCE

Ambient temperature range.....	-10 to +40	°C
Storage temperature range.....	-20 to +60	°C
Limiting resolution.....	430	TVL pph
Signal to noise (10 mlx scene).....	35	dB
Modulation at 430TVL pph.....	.50% (excludes lens)	
Luminous sensitivity (2854 K):		
anti-bloomed.....	2500	µA/lumen
non anti-bloomed.....	2800	µA/lumen

CONNECTORS AND CONTROLS

Power connector.....	HR10/4 plug
Auto-iris connector.....	HR10/6 socket
Video connector.....	BNC
Mode switches:	
1 Level control.....	peak/average
2 Gamma correction.....	1/0.45
3 Backlight compensation.....	1 stop overdrive/normal
Pushbutton.....	Gain inhibit for setting auto-iris lens Reset by cycling power

Internal switch for CCD setpoint:

Position	CCD Setpoint (°C)
0	+5
1	0
2	-5 (factory default)
3	-10
4	max.
remainder	off

OPTIONS

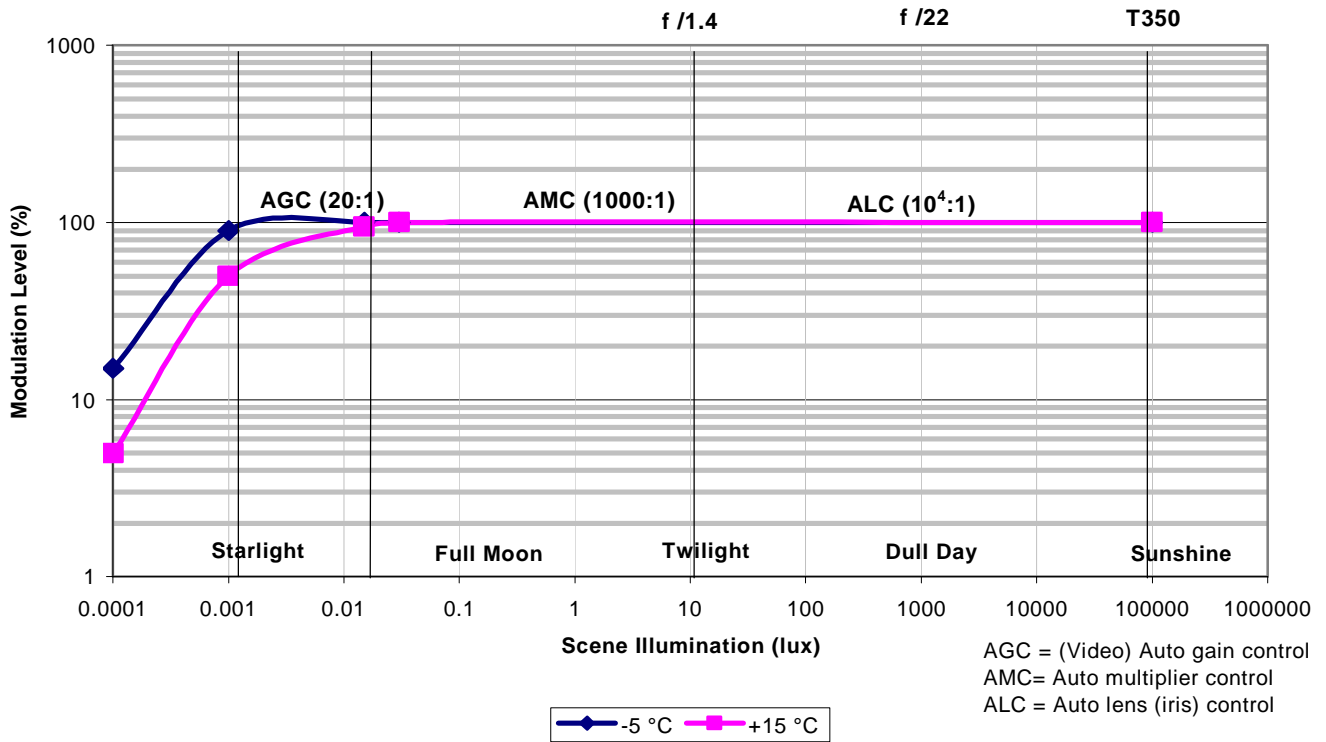
525-line operation, anti-blooming – L3C65-05AP
625-line operation, anti-blooming – L3C65-06AP

525-line operation, non anti-blooming – L3C65-05BP
625-line operation, non anti-blooming – L3C65-06BP

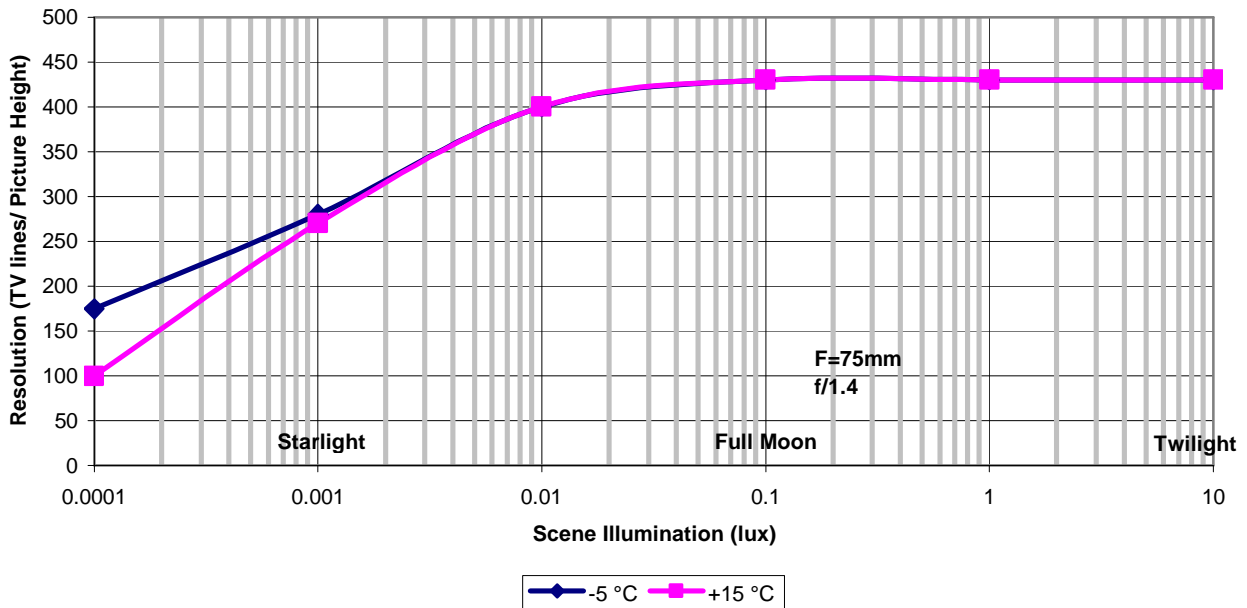
For frame shift smear reduction (LCP shutter), add 'S' to the type number.

If this option is chosen, the camera operating temperature range will be limited to +15/+40 °C.

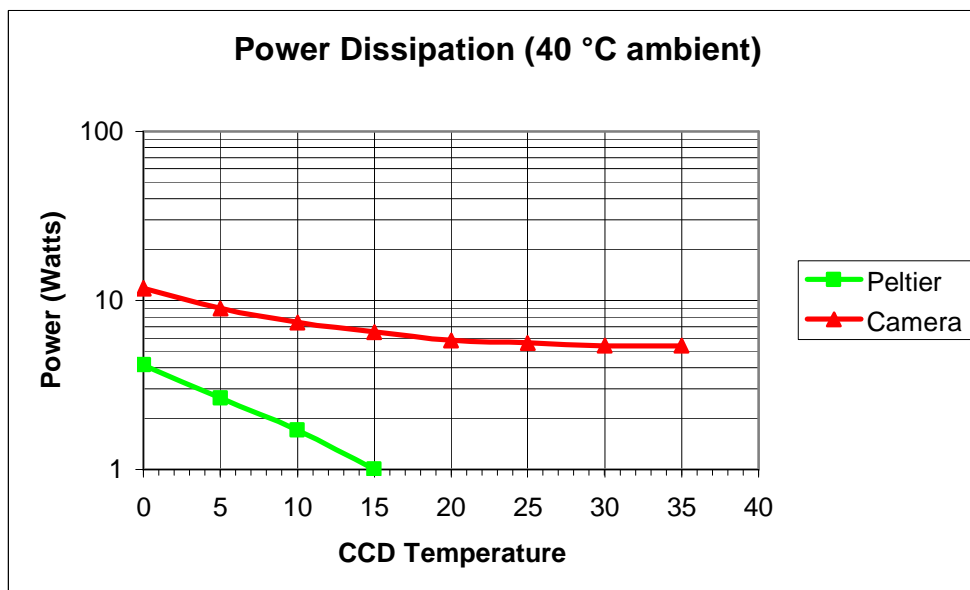
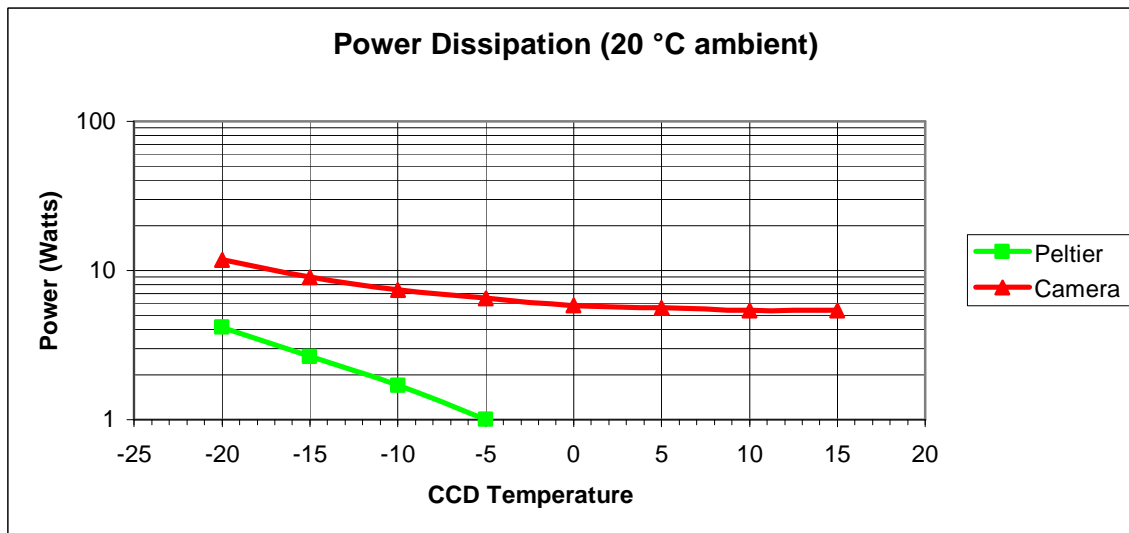
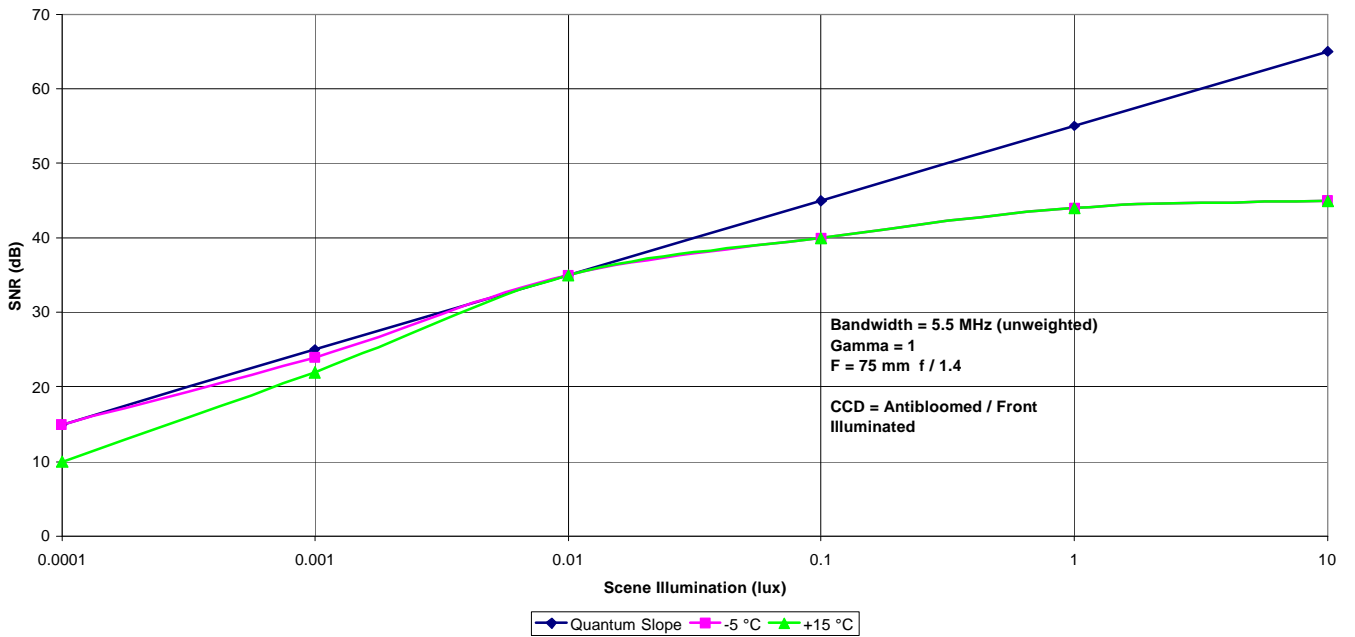
Typical Auto Level Control vs CCD Temperature



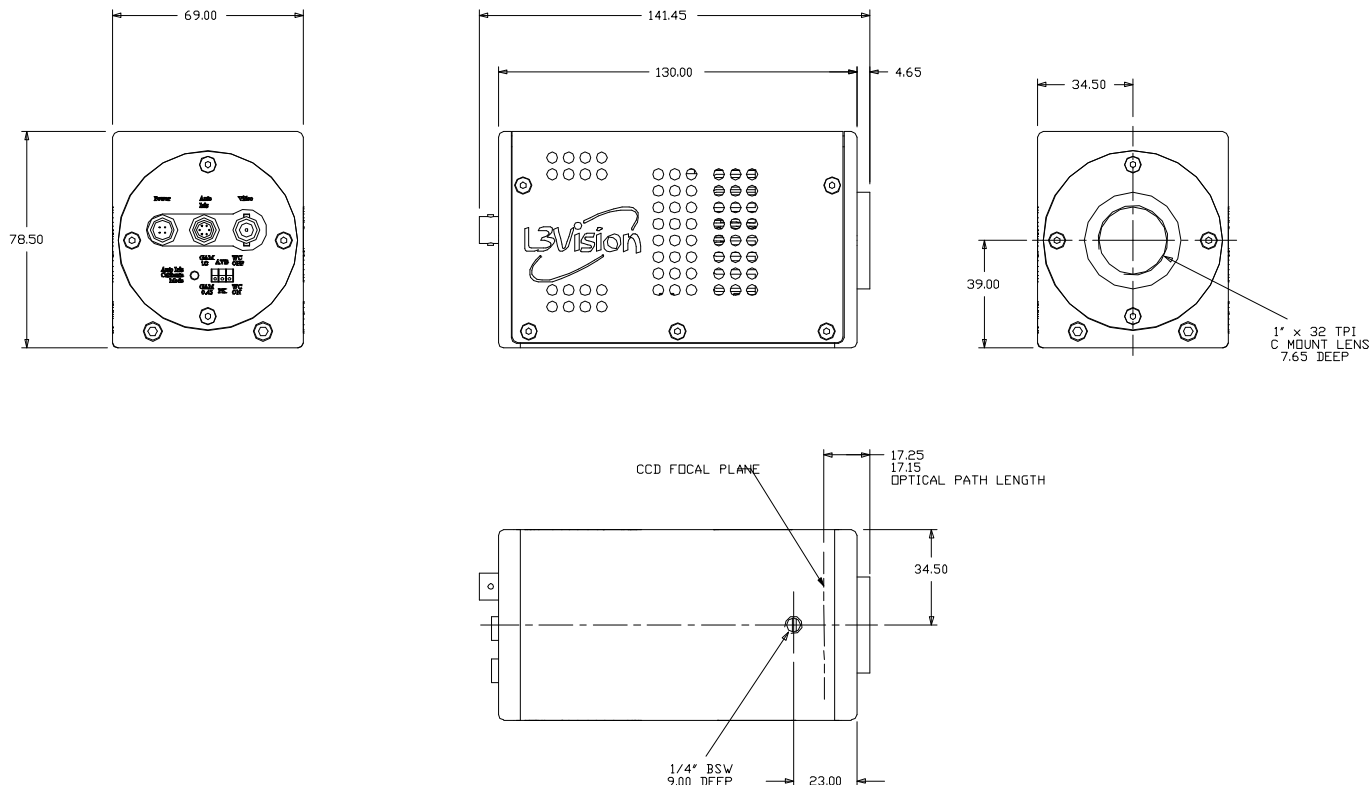
Typical Resolution vs CCD Temperature



Typical Noise Performance vs CCD Temperature

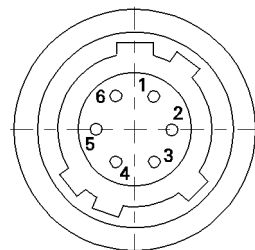


OUTLINE (All dimensions in millimetres)



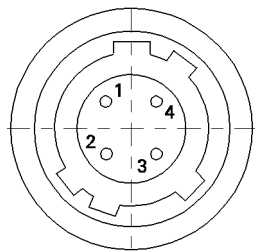
AUTO-IRIS SETUP (HR10 / 6 Chassis Socket)

Pin No.	SIGNAL	TYPE	COMMENT
4	+12 V	Lens Power	50 mA max
2	IRIS RETURN	Analogue ground	-
3	IRIS OUT	Clamped and Blanked video	$Z_0 = 680 \Omega$ DC coupled. Nominal 1 Vpp at half saturation.



DC POWER INPUT (HR10 / 4 Chassis Plug)

Pin No.	SIGNAL	TYPE	COMMENT
3, 4	0 V IN	Input return	Isolated input ground
1, 2	12 V IN	Input power	10 to 16 Vdc nominal (500 mA typical) regulated and smoothed with no spike transients.



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