



The AG-5745EF is a high resolution, fully automatic gated intensified CCD camera. This camera series has variable edge enhancement for higher-definition (factory setting is at min. level). Switches provide for manual and external gating control while also allowing the gate pulse output to be monitored. The AG-5745EF is well suited for military, aerospace, remotely piloted vehicles, underwater observation, mobile surveillance and scientific applications.

- Gen III or Gen III Ultra intensifier
- Full automatic gating control and automatic intensifier gain control
- Manual or external gate control
- Synchronous to frame or field timing
- Fast gating (100 ns)
- High resolution fiber coupled CCD
- Shutter and integration capability
- Compact size
- 12V DC operation
- Dynamic range  $10^{-4}$  to 50,000 lux at  $f=1.4$

### Intensifier Tube Specifications

	Gen III	Gen IIIU
Type	18 mm gated, proximity focus	
Input	1" (18 mm diameter)	
Output	2/3" (tapered-fiber coupled to CCD)	
Photocathode	GaAs	
Phosphor Screen	P43	
Gain	20,000-35,000	30,000-50,000
Resolution	45 lp/mm	64 lp/mm
EBI	$2.5 \times 10^{-11}$ lm/cm <sup>2</sup>	$2.5 \times 10^{-11}$ lm/cm <sup>2</sup>
	(max)	(max)
Tube Life	10,000 hrs	10,000 hrs

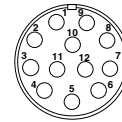
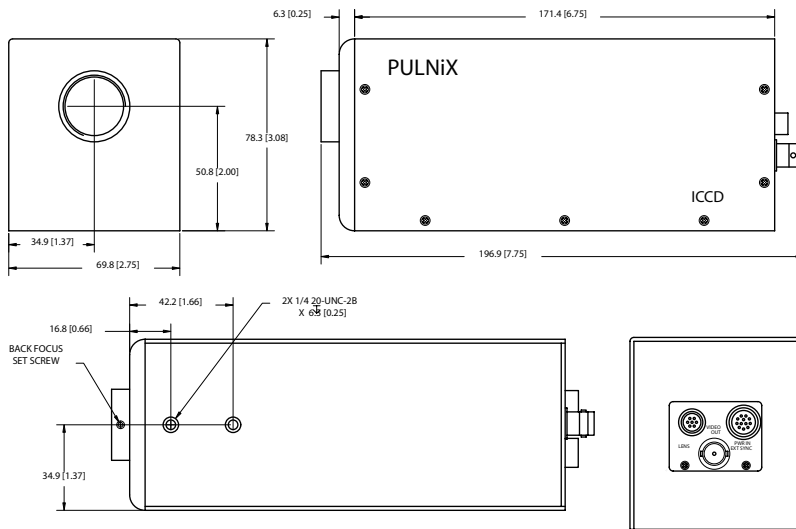
## Internal CCD Camera Specifications

	TM-745E (EIA)	TM-765E (CCIR)
Imager	2/3" interline transfer CCD	
Pixel	768 (H) x 493 (V)	756 (H) x 581 (V)
Cell Size	11 $\mu$ m x 13 $\mu$ m	11 $\mu$ m x 11 $\mu$ m
Scanning	525 lines, 60 Hz 2:1 interlace	625 lines, 50 Hz 2:1 interlace
Sync	Internal/external auto switch HD/VD 4.0 Vp-p impedance 4.7K VD=interlace/non-interlace	
	HD=15.734kHz $\pm$ 5%	HD=15.625kHz $\pm$ 5%
TV Resolution	570 (H) x 350 (V)	560 (H) x 420 (V)
S/N Ratio	50dB min.	
Min. Illumination	0.5 lux, f=1.4 without IR cut filter	
Video Output	1.0 Vp-p composite video, 75 $\Omega$	
AGC	ON	
Gamma	1.0	

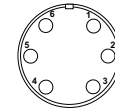
## Auto-Gated Intensified CCD Series Specifications

	AG-5745EF-3/3U	AG-5765EF-3/3U
Max. gating speed	50 ns, 10 ns with ext. gate	
Gain Control	MCP	
Min. Sensitivity	1 x 10 <sup>-6</sup> lux at face plate	
Min. Illumination	1 x 10 <sup>-4</sup> lux f=1.4	
Lens Mount	C-mount standard, use 1" format lenses	
Power Requirement	12V DC $\pm$ 10%, 600 mA	
Size (L x W x H)	171mm x 70mm x 78mm (6.73" x 2.76" x 3.07")	
Weight	3 lbs 2 ounces (1.429 kg)	
Power Cable	12P-025	
Power Supply	PD-12U series	
Operating Temp.	Full performance: -10° C to +50° C Reduced performance: -20° to +65° C	
Storage Temp.	-50° C to +70° C	
Size	69.8 mm x 78.3 mm x 171.4 mm	

## Physical Dimensions

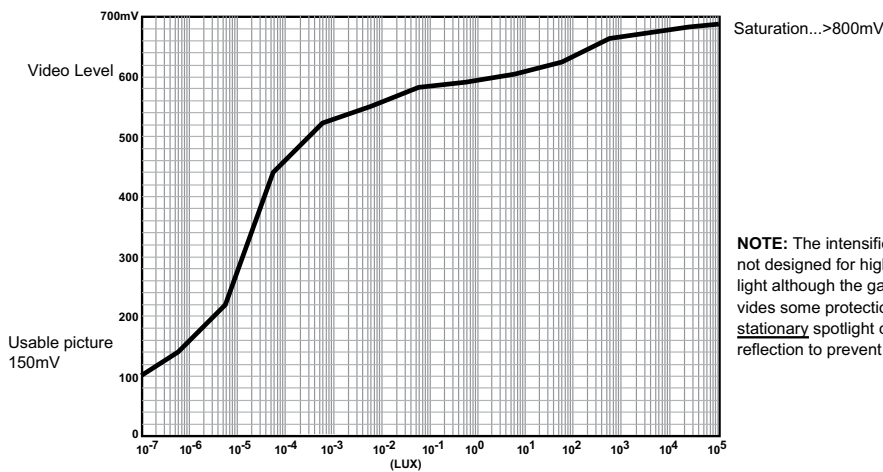


12-Pin Connector			
1	GND	7	VD in
2	+12V DC	8	GND
3	GND	9	HD in
4	Video	10	GND
5	GND	11	Int Cont
6	VINIT	12	GND



6-Pin Connector			
1	D2	4	+12V
2	GND	5	D0
3	Video	6	D1
D0, D1, D2 Shutter control			

## Typical Video Level vs. Face Illumination (AG-5745EF Series)



**NOTE:** The intensifier tube is not designed for high intensity light although the gating provides some protection. Avoid stationary spotlight or sunlight reflection to prevent damage.

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