

# HD 2105

## Image intensifier

HD 2105 is 18 mm, inverting Gen II image intensifier tube. Equivalent label XX1800A.

It is a high gain, high photosensitivity image intensifier tube suitable for passive night vision systems and goggles. The HD 2105 consists of a high efficiency S25 extended red photo-cathode on a fiber optic input window; a microchannel plate (MCP) current amplifier; and a fiber optic phosphor screen.

The HD 2105 has a high voltage power supply which incorporates automatic brightness control (ABC) to provide a constant output image brightness as light levels varies. The power supply also provides bright source protection (BSP) to guard the tube against exposure to high levels of light.

The HD 2105 is completely self-contained image intensifier tube encapsulated within a hard-surface insulating sleeve.

Performance	Unit	Min.	Max.
Cathode sensitivity 2856°K 830 nm	µA/lm	300	
	mA/W	25	
Signal-to-Noise ratio		18	
EBI	µlux		0.25
Luminous gain at $2 \times 10^{-5}$ lux	Cd/m <sup>2</sup> /lux	2400	9550
Supply current	mA		16
Output uniformity			3 : 1
Limiting resolution	lp/mm	36	
MTF at 2.5 lp/mm	%	86	
7.5 lp/mm	%	58	
15 lp/mm	%	20	
Photocathode diameter	mm	17.5	
MTTF	hours	10000	

Picture quality			
Size (µm)	I	II	III
381-500	0	0	0
301-380	0	0	0
231-300	0	1	1
150-230	0	2	2
70-150	1	3	3

