

# M891-SS™ Image Intensifier (MX-10130D)

## Gen III Night Vision Image Intensifier (I<sup>2</sup>) Tube



*M891 is used in  
L-3 EOS M963™  
(AN/PVS-7)*



The M891-SS Image Intensifiers are equivalent to the U.S. MX-10130D configuration.



### BENEFITS:

- Gen III photocathode which is very sensitive to low levels of visible and near-infrared light
- Thin-filmed ion barrier to greatly extend Gen III I<sup>2</sup> tube life versus Gen II tubes
- 1400 and 1600 FOM exportable versions available
- U.S. manufactured Generation III image intensifier (I<sup>2</sup>) tube

### FEATURES:

- One year warranty standard
- The M891 image intensifier tube is L-3 EOS' commercial version of MX-10130D
- Non-inverting, straight-through optic
- Used in the L-3 EOS M963™ (AN/PVS-7) night vision goggle
- This Image Intensifier is equivalent to U.S. Military configuration MX-10130D



## M891-SS™ (MX-10130D) I<sup>2</sup> TUBE TECHNICAL SPECIFICATIONS BY MODEL:

PERFORMANCE PARAMETERS	M891-SS1400™ (P/N 245090-SS1400)	M891-SS1600™ (P/N 245090-SS1600)	M891-SS001™ (P/N 245130-SS001)						
FIGURE OF MERIT (FOM) FOM = SNR x RESOLUTION	1026 FOM (Min) 1400 FOM (Max)	1094 FOM (Min) 1600 FOM (Max)	Unlimited FOM THIN-FILMED						
RESOLUTION (lp/mm)	57 (Min)	57 (Min)	57 (Min)						
SIGNAL TO NOISE RATIO	18.0 (Min)	19.2 (Min)	19.2 (Min)						
HALO mm	.85 (Min) to 1.25 (Max)	.85 (Min) to 1.25 (Max)	1.25 (Max)						
PHOTOCATHODE SENSITIVITY 2856° K (µA/lm)	1200 (Min)	1500 (Min)	1500 (Min)						
PHOTOCATHODE SENSITIVITY at 880nm (mA/W)	72 (Min)	77 (Min)	77 (Min)						
PHOTOCATHODE SENSITIVITY at 830nm (mA/W)	N/A	N/A	155 (Min)						
EBI (x10-11 phot)	5.0 (Max)	5.0 (Max)	5.0 (Max)						
LUMINANCE GAIN @ 2x10 <sup>-6</sup> fc (fL/fc)	40000 (Min) to 70000 (Max)	40000 (Min) to 70000 (Max)	40000 (Min) to 70000 (Max)						
LUMINANCE GAIN @ 2x10 <sup>-4</sup> fc (fL/fc)	5000 (Min) to 20000 (Max)	10000 (Min) to 20000 (Max)	10000 (Min) to 20000 (Max)						
OUTPUT BRIGHTNESS @ 1 and 20 fc (fL)	1.5 (Min) to 4.0 (Max)	2.0 (Min) to 4.0 (Max)	2.0 (Min) to 4.0 (Max)						
RELIABILITY (HOURS)	10000	10000	10000						
HIGH-LIGHT RESOLUTION @ 20 FC (LP/MM)									
MTF @2.5 LP/MM	86%	Info Only	92%						
MTF @7.5 LP/MM	65%	Info Only	80%						
MTF @ 15 LP/MM	35%	61%	61%						
MTF @25.0 LP/MM	16%	38%	38%						
MAXIMUM SPOTS ALLOWED IN EACH ZONE									
	<b>Zone</b>			<b>Zone</b>			<b>Zone</b>		
SPOT SIZE (IN.)	<b>1</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>3</b>
>.009 OR LARGER	0	0	0	0	0	0	0	0	0
>.006 - .009	0	1	2	0	1	2	0	1	2
>.003 - .006	0	2	3	0	2	3	0	2	3
BRIGHT SPOTS	0	0	0	0	0	0	0	0	0
INPUT OPTIC	Glass								
CATHODE TYPE	Gallium Arsenide								
PHOSPHOR	P43								
IMAGE OUTPUT	Non-Inverting (Straight-Through)								
STANDARD TUBE WARRANTY	1 Year								

Specifications subject to change without notice

M891-SS (MX-10130D) Oct 2010



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Summit Night Vision Group is a U.S. Service-Disabled, Veteran-Owned Small Business.

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