

Infrared Viewing to Beyond 2 microns



7290A shown with 25mm objective lens

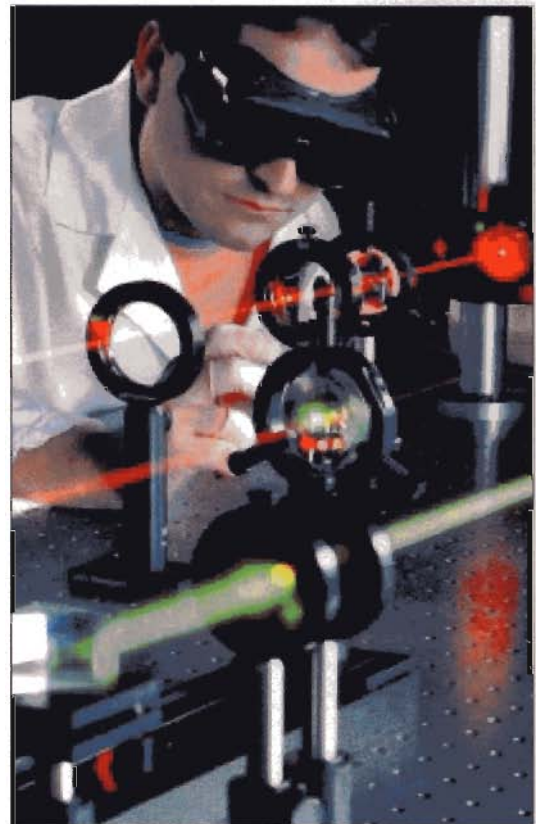
MicronViewer 7290A Fixed-Mount Infrared Camera **MicronViewer 7290AX Portable Infrared Camera**

The *MicronViewer* combines many unique features and benefits in one versatile and affordable camera: broad spectral response (400nm to over 2 μ m), excellent sensitivity and resolution, RS-170 60Hz or CCIR 50Hz video output, a variety of optional lenses and filters, and fixed-mount or hand-held configurations, as well as extended-response versions!

- Accepts a variety of C-mount objective lenses
- Integral optical filter slide permits use of 25mm long-pass, short-pass, band-pass or neutral density filters
- 3-position manual gain or auto gain
- Standard video output: RS170 (60Hz) or CCIR (50Hz)
- Gen-lock input
- Tripod mount
- High-performance, lead-oxysulfide vidicon, 9.5x12.7mm imaging detector

Applications

- Laser beam profiling and/or analysis: Nd:YAG (1.3 μ m), Er:Glass (1.5 μ m), Ho:YAG (2.1 μ m)
- Viewing and aligning IR sources
- Thermal imaging of objects hotter than 250°C
- Moisture detection
- Forensic analysis
- Semiconductor sub-surface inspection



Specifications

Electro-Optical

Spectral Sensitivity	0.4 to 1.9 μ m (7290A, 7290AX) 0.4 to 2.2 μ m (7290A-06, 7290AX-06)
Horizontal Resolution	Up to 700 TV lines (7290A, 7290AX) Up to 650 TV lines (7290A-06, 7290AX-06)
Dynamic Range	100:1 (7290A, 7290AX) 50:1 (7290A-06, 7290AX-06)
Scanned Area	9.5x12.7mm ²
Damage Threshold	1mW/cm ² (CW), 10mJ (pulsed)
Decay Lag after 50ms	45-60%

Electrical

Sweep Rate	RS-170 (7290A, 7290AX) CCIR (7290A-E, 7290AX-E)
Scanning	2:1 interlace
Signal-to-Noise Ratio	55db (p-p/rms) or better
Deflection Distortion	Max 1% in circle of picture height Max 2% in circle of picture width
Synchronization	Internal/Genlock (composite)
Power	6W, 500mA
Voltage Requirement	12-15VDC (7290A) Internal rechargeable battery (7290AX)

Mechanical

Camera Dimensions (excluding attachments)	22cmLx10cmWx7cmH (7290A)
	8.75"Lx4.00"Wx2.75"H (7290A)
	22cmLx10cmWx7.6cmH (7290AX)
	8.75"Lx4.00"Wx3.00"H (7290AX)
Weight	1.13Kg; 2.5lb. (7290A) 1.52Kg; 3.2lb. (7290AX)
Mounts	1.0"-32 lens C-mount thread 1/4"-20 UNC-2B tripod mount on base Filter Slide accepts 25mm Filters

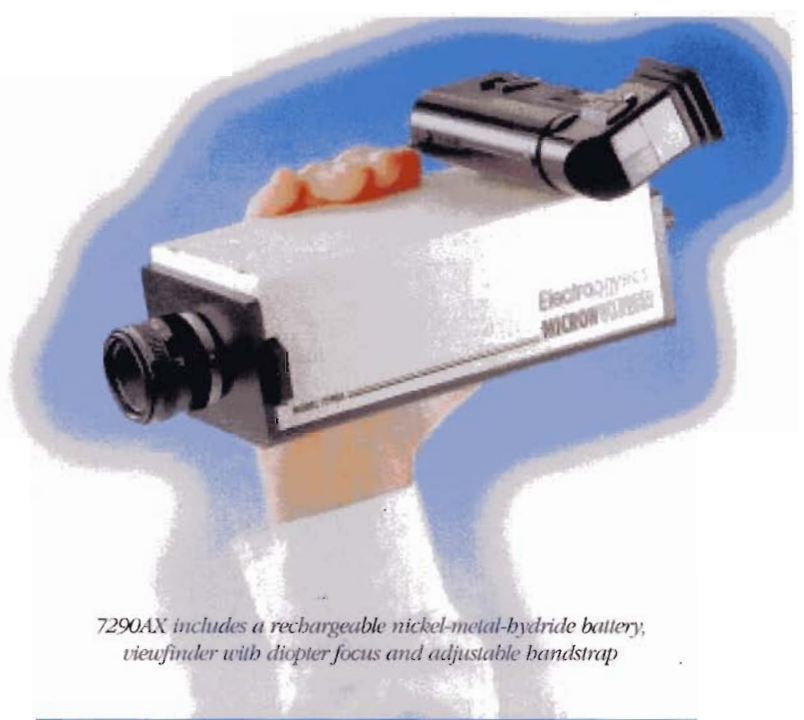
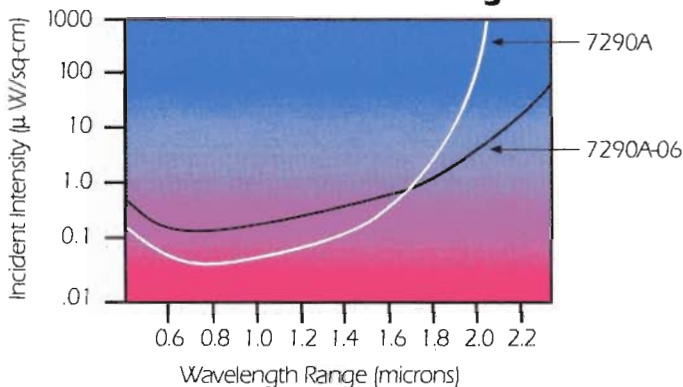
Environmental

Ambient Temperature Range	
Operating	20°C to +50°C (-4°F to +122°F)
Storage	5°F to +70°C (-65°F to +158°F)

Controls

On/Off	Initiates power
Gain Control	Three manual positions or automatic
Shading Correction	Internal control
Sensitivity (target)	Internal control
Video Output Connector	BNC
Sync Input Connector	BNC
Power Connector	4-pin

Minimum Detectable Signal



7290AX includes a rechargeable nickel-metal-hydrate battery; viewfinder with diopter focus and adjustable handstrap

Model Designations

7290A	Fixed-mount camera with RS-170 60Hz video output	☉
7290AX	Hand-held camera with RS-170 60Hz video output	☉
7290A-06	Extended range, fixed-mount camera with RS-170 video output	☉
7290AX-06	Extended range, hand-held camera with RS-170 video output	☉
7290A-E	Fixed-mount camera with CCIR 50Hz video output	☉
7290AX-E	Hand-held camera with CCIR 50Hz video output	☉
7290A-06E	Extended range, fixed-mount camera with CCIR video output	☉
7290AX-06E	Extended range, hand-held camera with CCIR video output	☉

7290A designations require Power Supply. 7290AX designations include a L25F 1.4 lens and viewfinder.

Accessories

PS-120/12	Camera power supply for 120VAC (includes 6-foot cord)
PS-240/12	Camera power supply for 240VAC (includes 6-foot cord)
G25	Filter slide for 1-inch optical filters
LPF-*	Long-pass filter, 25.4mm OD (*=700,750,...,950,1000nm)
SPF-*	Short-pass filter, 25.4mm OD (*=700,750,...,950,1000nm)
BP-*	Band-pass filter, 25.4mm OD (*=700,710,...,1060,1300,1550nm)
NDF-*	Neutral Density filter, 25.4mm OD (*=0.1,0.2,...,1.0,1.5,2.0 ND)
CLS	Close-up lens set (37.5mm thread; for L25F1.4 lens only)
XT	Extension tube set (for use between lens and camera)
L25F1.4	25mm F1.4 objective lens (with integral iris diaphragm)
L50F1.8	50mm F1.8 objective lens (with integral iris diaphragm)
L135F2.8	135mm F2.8 objective lens (with integral iris diaphragm)
Z12.5-75F1.2	Zoom objective lens (with integral iris diaphragm)
TV9D	9-inch black-and-white bench-top monitor (120VAC)
TV9DE	9-inch black-and-white bench-top monitor (240VAC)
VC-6	6-foot video cable



373 Route 46 West
Fairfield, NJ USA 07004-2442
(973)882-0211 Fax: (973)882-0997
www.electrophysicscorp.com