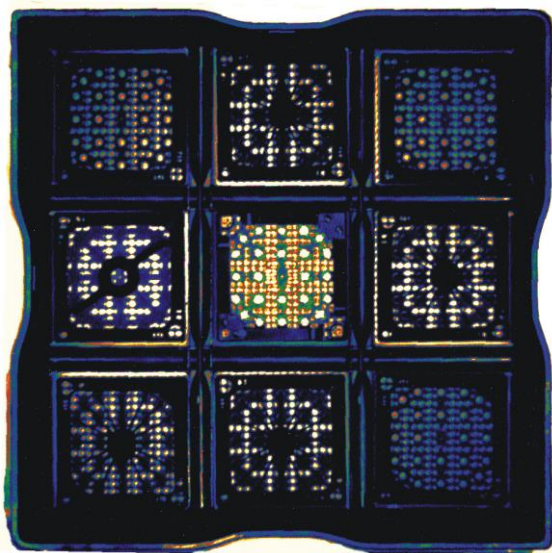


# Technical Specifications

Digital Cerenkov Viewing Device



# Technical Specifications

**Features**

- High sensitivity CCD capable of detecting Cerenkov glow from 10,000 MWd/T burnup fuel cooled for 40 years
- User selectable exposure, gain, and binning
- Grey-scale or false-colour image viewing
- High visibility Class 3 laser pointer for locating fuel assemblies
- Stable detector platform for mounting on facility railing or fuelling machines
- Battery operation for 3-4 hours before recharging

**Physical**

Shipping Cases: Exterior Dimensions (mm).....	625x500x375
Total Shipping Weight (Both cases, kg) .....	45
DCVD-e Dimensions, on railing, excluding monitor and down leg (mm) .....	870x200x430
DCVD-e Weight (assembled on railing, kg).....	20
Operating Time (batteries at full charge, h) .....	3-4
Battery Type.....	Li-ion rechargeable
Power Source.....	Batteries/AC power adapter

**Environmental**

Operating Temperature (°C).....	5 to 30
Storage Temperature (°C).....	-20 to 50
Relative Humidity (% non-condensing) .....	<70

**Detector**

Manufacturer.....	ANDOR Technology
Model .....	DU-897U-CS0-UVB-9TM
Weight (kg).....	5
CCD Sensor, Lumogen-coated for UV Sensitivity	
Pixels .....	512 x 512
Pixel Size (µm).....	16x16
Measurement Area (mm) .....	8.1x8.1
Quantum Efficiency (at 300 nm, typical, %).....	30
Dark Current (e-/p/s) .....	0.01
Digitization.....	14-bit

**Filter Transmission**

295-340 nm (%) .....	80
Outside 295-340 nm Range (%).....	<0.1

**Lens**

80 – 200 mm Zoom Lens	
Manufacturer .....	Channel Systems Incorporated custom lens
Focal Length (mm) .....	80 - 200
Aperture .....	f/3.2
Focus Range (m) .....	3 m to infinity

**Railing Bracket**

Manufacturer .....	Channel Systems Incorporated
Mounting Requirements	
Max Diameter for Tubular Rail (mm) .....	80
Max Width for Square/rectangular Top Rail (mm) .....	200
Max Detector Assembly Extension (mm) .....	280
Distance (support strut from top rail) (mm).....	200-500

**Computer**

Type .....	Intel NUC5i3MYBE
CPU .....	Intel Core i3-5010U
Memory .....	4 GB DDR3
System Drive Storage .....	128 GB M.2 SSD
Display(SVGA colour touch panel).....	210 mm TFT

**Software**

DCView features (running under Windows 10):

- Set exposure, binning, and gain
- Select a region of interest at any position on the display
- Run in single frame or continuous mode imaging
- Save measurements to file
- Import and review saved measurements
- Export images to 8-bit tiff format

**Ordering Information**

The DCVD-e package includes:

- Rugged shipping cases (2)
- Electronics box
- Detector assembly
- LCD monitor
- Four lithium-ion instrument batteries
- Battery charger
- AC power adapter
- Safety tether
- Documentation package and software CDs