

# Antonello – Multispectral Imaging System

## Technical Data Sheet

### 1. Product Overview

Antonello is a professional multispectral imaging (MSI) system developed for non-invasive examination of cultural heritage objects. It combines a modified full-spectrum Nikon D850 camera, calibrated illumination and interchangeable narrow band-pass filters to acquire high-resolution monochromatic images from the ultraviolet to the near infrared.

### 2. System Configuration

Component	Specification
Camera	Modified Full-Spectrum Nikon D850
Spectral Filters	18 narrow band-pass filters
Spectral Range	400–925 nm
Software	Antonello MSI Software
Registration	Automatic image registration App
Processing	Reflectance calibration, false colour, spectral analysis
Applications	Paintings, manuscripts, archaeological objects

### 3. Spectral Acquisition

Typical acquisition wavelengths include 405, 450, 470, 505, 530, 560, 590, 615, 630, 660, 700, 735, 780, 830, 850, 880 and 920 nm. These images are combined into a calibrated multispectral image cube.

### 4. Software Features

Automatic image registration, reflectance normalization, false-colour image generation, infrared false colour (IRFC), spectral profile extraction, region comparison and export of calibrated datasets.

### 5. Typical Applications

Multispectral documentation of paintings; manuscript examination; pigment discrimination; detection of retouching and restorations; technical photography workflows; research and teaching.

### 6. Advantages

Non-invasive analysis, 45.7 MP acquisition, UV–VIS–NIR coverage, portable system, open scientific workflow, compatibility with Pigments Checker reference targets.

### 7. Typical Users

Museums, conservation laboratories, universities, libraries, archives, archaeological laboratories and research institutes.