



OEM Spectrometer RU60

200 ... 1000 nm

The JETI broadband OEM spectrometer **RU60** is a flat field spectrograph combined with a powerful processing electronics.

Main characteristics of RU60:

- ◆ High quality image with very low aberrations over the whole spectral range
- ◆ High dynamic range
- ◆ High sensitivity in VIS, UV and IR
- ◆ Compact design
- ◆ Can easily be integrated in customer systems
- ◆ In-built mechanical shutter

Applications:

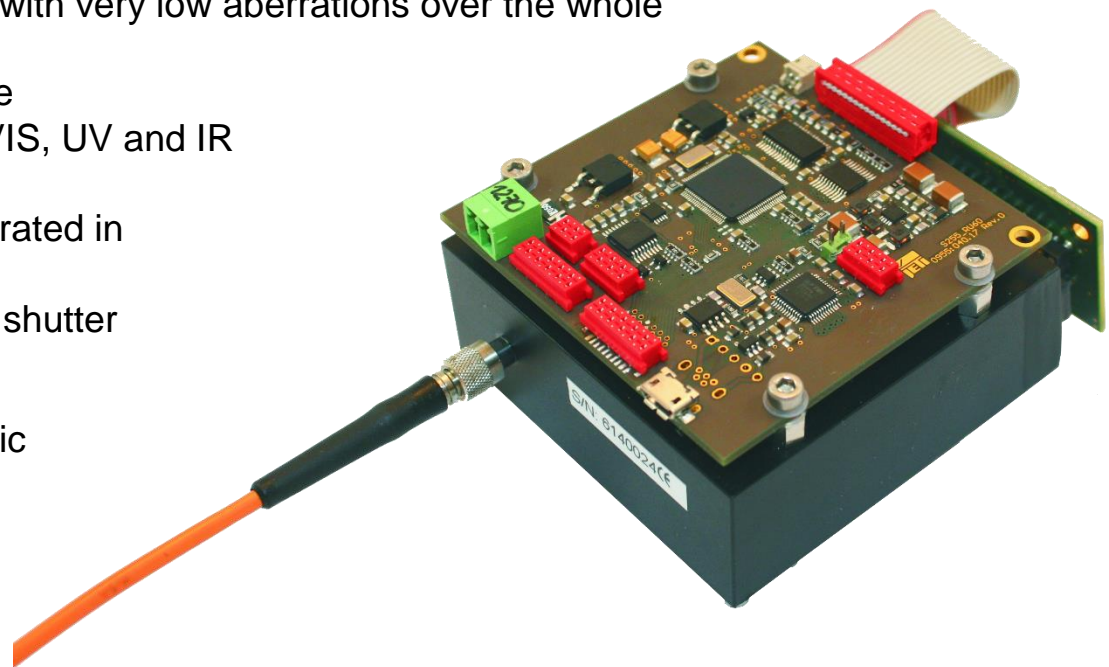
- ◆ Mobile spectrometric measurement
- ◆ Equipment
- ◆ Colorimeter
- ◆ Spectroradiometer
- ◆ Analytical instrumentation
- ◆ Multichannel spectrometric systems
- ◆ Online analyzer

Controller functions:

- ◆ Internal storage of wavelength-pixel relation
- ◆ Preprocessing of data, dark signal correction, absolute calibration
- ◆ Internal calculations like averaging, interpolation, transmission, reflexion, absorption, color coordinates
- ◆ Dedicated control syntax (SCPI compliant)

Advantages:

- ◆ Very low astigmatism
- ◆ Low stray light
- ◆ Processing of spectral calculations
- ◆ SCPI compatible control syntax





Specifications

Optical parameters

Spectral range	200 nm ... 1000 nm
Optical bandwidth	≤ 4.0 nm FWHM (100 μm slit) ≤ 2.5 nm FWHM (50 μm slit) ≤ 2.0 nm FWHM (25 μm slit)
Asymmetry factor	0.7 ... 1.3
Optical input	F-SMA connector for a 200 μm fiber
Wavelength accuracy	≤ 0.5 nm (HgAr linesource)
Wavelength reproducibility	≤ 0.02 nm (HgAr linesource)
Stray light	< 0.2 % (ASTM E387, GG495, λ = 420 nm/ 600 nm)
Spectrometer	holographic grating, flat field
Detector	Hamamatsu S11155 (or others)

Electronic parameters

Digital resolution	16 bit
Dynamics	≥ 3000
Typical sensitivity	for 50 μm slit, 200 μm fiber: 6*10 ¹⁶ counts/ Ws at 250 nm 1*10 ¹⁷ counts/ Ws at 500 nm 6*10 ¹⁶ counts/ Ws at 750 nm 2*10 ¹⁶ counts/ Ws at 1000 nm
Sampling speed	up to 4 MS/ s
Transfer speed	up to 40 Mb/ s (via High Speed USB)
Integration time	0.01 ... 65 535 ms
Power supply	6 ... 12 V DC, < 500 mA or USB powered
Interfaces	USB (High or Full Speed) SPI (up to 15Mb/ s) TTL UART (up to 921600 Baud) RS 232 (up to 230 400 Baud) 7 Dig In 4 Dig Out Temperature sensor input (NTC) 3 Analog inputs 10 bit (0 ... 3.3 V)

Mechanical parameters

Dimensions (total)	95 mm x 75 mm x 50 mm
Weight	approx. 180 g

Scope of delivery

Spectrometer, PC software VersaSpec,
JETI SDK , operation manual