1U 1.4 kg
Orbit: 500 km polar SSO
Launch: ESA Vega p-o-c flight mid-2019

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Earth observation:
RGB camera
NIR camera

• Image sensor mono/RGB Aptina MT9P031, 5 Mpixels, pixel size 2,2 μm
• Pix size on ground 26x26 m
• Lens L-M12-1M50020S20 f = 50 mm. Aperture 2
Simulated Pictures based on Sentinel-2 data
Simulated Pictures based on Sentinel-2 data
Comm:
Amateur band 430 MHz, 
Experimental x-band 10.5 GHz
Ground Station in TTÜ campus
From left: Radio – EPS – ADCS – cameras - OBC
Assembly

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Texas Instruments 320C6727
64-bit Double-Precision
Floating-Point DSP processor
max 300 MHz, adjustable
Performance: 2400 MIPS/1800 MFLOPS

FPGA for:
- Image buffering
- Computational architecture
- Reliability experiment
- Space GPS
- Real-time video compression
Optical comm experiment:

Laser-diodes:
- red, 300 mW, spread.
- infrared, impulse 400W, spread.

LED’s:
- red, spread.
ULF experiment
Ultra Low Frequency comm
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