

Příloha č. 1 kupní smlouvy: Technická specifikace

Veřejná soutěž: Digitální kamera k elektronovému mikroskopu

Zadavatel: Mikrobiologický ústav AV ČR, v.v.i.



**Digitální kamera Veleta**



Nabízená sestava sestavy s digitální kamerou Veleta splňuje technické požadavky uvedené v odst. 1 (2) Zadávací dokumentace. Níže je uvedena podrobná technická specifikace sestavy:

## **Systém zahrnující digitální kameru Veleta, aktualizaci software analySIS 3.2 Pro na verzi iTEM, PC + 27"LCD monitor**

### **4 Megapixel TEM Camera Veleta**

Side-entry, high resolution 4 megapixel CCD camera suitable for a wide range of applications, installed on the TEM wide-angle port (35 mm port). Lens-optically coupled phosphor screen, optimized for 100/120 kV or 200 kV.

#### Specifications:

- Sensor type: CCD interline chip
- Cooling system: stabilized via Peltier cooling
- Shutter: internal (no modification to TEM necessary)
- Pixel size: 7.4  $\mu\text{m}$  x 7.4  $\mu\text{m}$
- Effective pixel size: 13  $\mu\text{m}$  x 13  $\mu\text{m}$  (with small prism: 11  $\mu\text{m}$  x 11  $\mu\text{m}$ )
- Pixel clock rate: 25 MHz
- Dynamic range: 16,384 gray values (14 bit)
- Image resolution: max. 2048 x 2048 pixels
- Binning factors: 1x, 2x and 4x
- Partial readout functionality
- Exposure times: 1 ms – 100 s
- Connection via FireWire interface (IEEE1394a)
- To be run under Windows XP and Windows 7 (32/64 bit)

#### Delivery includes:

- TEM dependent wide\*-angle adapter
- FireWire(IEEE1394a) PCIe card
- Cables
- Air pressure controller
- Air pressure tubes

#### Note:

1. The computer needs one free PCIe slot for the installation of the FireWire PCIe card
2. For the correct use of the camera at the TEM pressurized air (4-6 bar) must be present.

### **EMSIS PC Workstation**

Fully inspected, high-performance comprehensively equipped PC workstation. Perfectly suited for demands of today's high-end digital image processing. The carefully selected system components provide reliability also in a continuous operation and are fully compatible with current EMSIS hardware and software.

Specifications:

- Processor: Intel Core i5-6500, 4x3.2GHz (Intel Turbo Boost, 6 MB L3-cache, 65 W TDP)
- Memory: 8GB DDR4-2133 nECC SDRAM (2x 4 Gb)
- Optical Storage: Slim DVD-ROM SATA
- Internal Storage no. 1: 256GB SSD (with OS preinstalled)
- Internal Storage no. 2: 2TB HDD SATA, 7200 RPM
- Graphics Card: AMD FirePro W2100 2GB GFX
- Communication: 2x Intel 10/100/1000 Mbit, (1x on-board, 1x PCIe NIC)
- Legacy Connectors: 1 x RS-232 ("COM") PCIe card
- Operating system: Windows 7 Prof. 64 Bit, English (32 bit on request only).
- Mouse: Optical 3-Button-Wheel USB Mouse
- Keyboard: USB Keyboard with EN layout

NB: Dedicated manufacturer's warranty conditions apply to third party hardware supplied by EMSIS, such as PC workstations and monitors.

Dimension and Weight:

- Weight: ca. 8.8 kg
- Dimensions (WxDxH): 17 x 44.2 x 39.9 cm

Specifications are subject to change without further notice.

### **TFT-Monitor 68.6 cm (27")**

Flat TFT Widescreen Colour monitor with 68.6 cm (27") diagonal

- Resolution (Pixel) 2,560 x 1,440
- Wide: (15:9/16:9/16:10)
- Digital IPS Panel 1,000 : 1,350 cd/qm
- Viewing angle: horiz. 178° vert. 178°
- Switch time: 14 ms
- LED Backlight
- Adjustable in height, rotatable, tilt able
- DisplayPort, DVI-D
- USB 3.0
- HDMI (MHL)5
- Dimensions (footprint) WxDxH: 63x20x54 cm (H: Typical value)
- Weight /net): 10 kg

Specifications are subject to change without further notice.

### **Update analySIS Auto/Pro to iTEM + Detection**

Installation program for an update of an existing version of analySIS© Auto/Pro to iTEM.

The serial number of the analysis Auto/Pro version has to be provided when ordering the update.

Delivery includes a new iTEM setup DVD and the dongle update file supplied on a CD

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Delivery includes a new iTEM setup DVD and the dongle update file supplied on a CD.

### **Update iTEM Desktop License (2x)**

Installation program for an update version of one iTEM Desktop License. The update is free of charge for 12 months after delivery.

The serial number of the iTEM desktop license has to be noticed when ordering the update.

To be run under Windows XP or Windows 7 32 bit. Not compatible to Windows 8.1/10.

### **Dongle Upgrade LPT to USB (3x)**

Replacement of an existing legacy parallel port dongle with a new USB type dongle. The original dongle configuration will be transferred to the new USB dongle. In case of a combined update of the existing iTEM version the new configuration will be applied to the new USB dongle.

The serial number of the iTEM license has to be notices when ordering the exchange dongle.