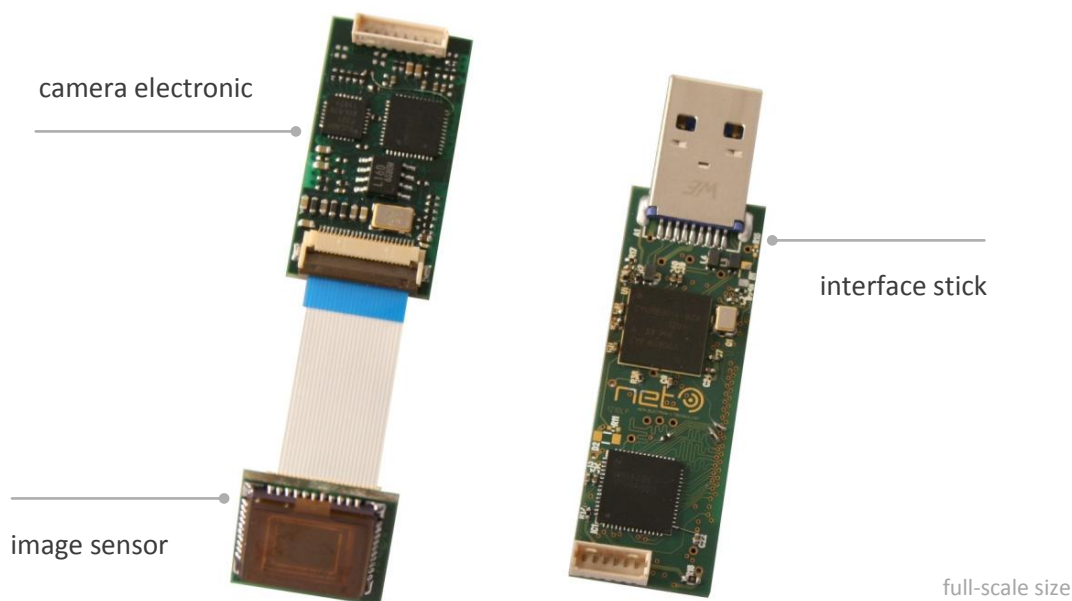


# HDC1330

The compact HD camera module combines all qualities most sophisticated users expect from a state-of-the-art camera: excellent image quality and image processing functionality due to digital image processing, maximum integration flexibility with its new remote interface stick and long-term reliability. It was designed as a low budget solution for integration into medical applications like dental cameras (intraoral cameras), endoscopic cameras, surgical microscopes and others.



NET's HD camera module offers images in top HD quality allowing precise image processing in all respects. Owing to the innovative remote interface stick, it is able to transmit maximum bandwidth with 30 frames per second via USB3.0 connection over 10 meters while offering optimal handling at once. The remote interface stick to PC is extendable with an HDMI interface. Images can be displayed in excellent quality with a resolution of 1280 x 1024 px or 720p in HDTV format. Optionally, the camera provides advanced real-time image processing tasks, like picture rotation or zooming. Both included viewers, the NET Viewer with built in vectorscope and the Direct Show Software (Direct-X) for easy integration in custom software (compatible with Windows XP, Windows 7 64-bit) easily master all relevant image matching tasks. Full user control of image processing is provided via 20 push buttons at the most. Sony's 1/3" CMOS image sensor with 1.3 megapixel on a small sized board delivers high resolution images and allows an optimal integration into flexible bodies due to a flat ribbon cable between image sensor and camera.

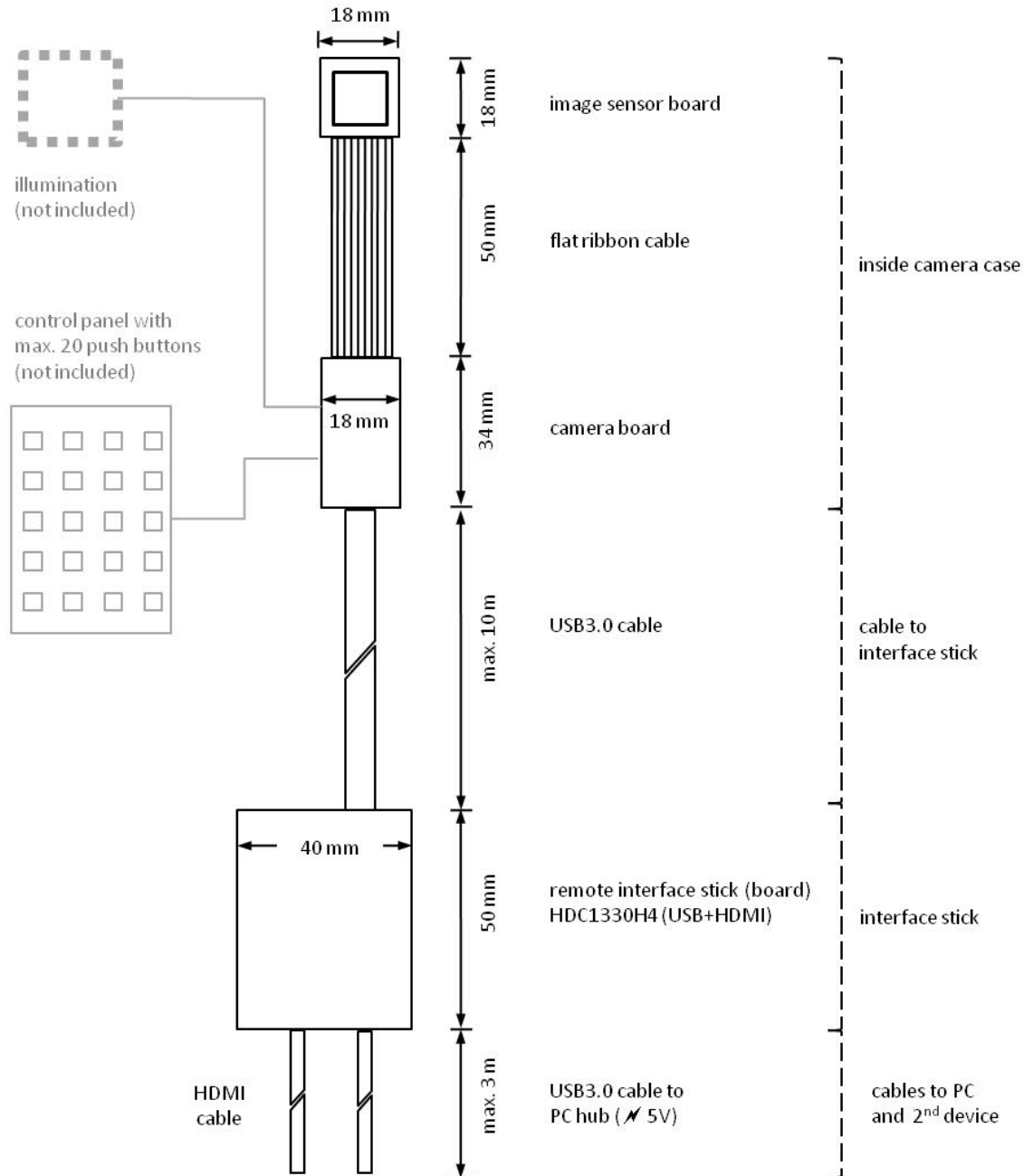
## HDC1330

### Technical Data

Image Sensor		
resolution	1280 x 1024 px (1.31 megapixel)	
type	1/3" CMOS	
color-depth	8 bit Y and 8bit U/V	
framerate	30 fps (29.97 Hz)	
auto exposure	yes	
board size (length x width)	18 x 18 mm	
operating temperature	-10 to 60°C	
Camera		
cable connector	8 pin (NET specific configuration: Power, GND, I2C, LVDS, program)	
board size (length x width)	34 x 18 mm	
power data	P = 2.5 W, I = 500 mA, U = 5 V	
control panel	up to 20 push buttons (freely configurable)	
sensor connector	flat ribbon cable , length: 50mm	
temperature	up to 50°C for live view	
Cable to Remote Interface Stick		
length	up to 10 m	
type	1 twisted pair screened (USB3.0 norm), 2 power cables, 2 control cables	
Remote Interface Stick		
	HDC1330U4	HDC1330H4
connector 1 (power supply)	USB3.0 Type A (DC 5 V)	micro USB3.0 (DC 5 V)
connector 2	---	HDMI
board size (length x width)	50 x 17 mm	50 x 40 mm
cable connector	6 pin (NET specific configuration; Power, GND, I2C, LVDS)	
USB 3.0 Hub	yes (length up to 3m USB3.0 cable to hub)	
USB 2.0 support	no (insufficient bandwidth)	
environmental conditions	temperature up to 50°C in live view	
power LED	optional	
Software		
Direct Show Filter (Direct-X)		
For use camera in non NET specific software, e.g. VLC media player, amcap		
graphic card	applicable for conversion of YUV to RGB > less CPU usage (Core i5: less than 20%). Compatible with Windows XP and Windows 64-bit	
settings	brightness, contrast, white balance, (saturation), (hue), flip horizontally, test pattern (DSP), color control, AE settings (e.g. long exposure), get camera info	
NET Viewer		
Viewer with built in vectorscope for easy color trimming. EEprom read/write procedure to store trimmed configuration. Shows framerate, bad and good frames.		
settings	brightness, contrast, white balance, saturation, hue, flip horizontally, test pattern (DSP), get camera info	

# HDC1330

## Outline



Rev. 1.03 / 11-2012

HDC1330

Please note that all data and illustrations are not binding and are subject to error, change and omissions without notice.