



**Comprehensive Scope 2**  
**Digital Monocular Head**  
**5.0MP HD Camera**  
**Dual Purpose**  
**Upper Light**

**EduCam**  
**optimized**



Model # TU-19544C / TU-19544C-230

Detailed Specifications (January 2014)

iOS & Android App	<b>EduCam</b>	Student App for iOS, Android, Mac, and Windows on multiple platforms (Tablets, Smartphones, & Desktop) Collaboration and instant assesment software.
Software	<b>Applied Vision 4</b>	Windows XP SP3+ and Mac 10.6.8+ enabled
	Full Screen	desktop enabled icon and single click software button via software
	Image Compression	JPEG
	Split Screen	Through the software
	Multiple Camera Support	2 - 8 running simultaneously
	Time Lapse Recording	Both Image and Video playback
	Drawing	Multiple pallet tools
	Video Playback	Through varied programs
	Document Orientation	Single Click Hardware button
	Auto Format Image	16:9 format and/or 4:3 format auto or manual select by software
	Distance Learning	Single Click software button UVC compliant
Export to MS Office		Drop down to MS Word or EXCEL
		Vector graphics - .svg estension
Head	Eyepieces	1- WF10x 19mm eyepiece with built-in coating for humidity and poor climate; 1 with pointer; all fixed to avoid loss and damage
	Eyepiece tubes	1 - Variable adjustment $\pm 0.20x$ for varied eye strengths.
	<b>Integrated Top mounted Digital</b>	1 -- 45° Angle 360° rotation attached eyepieces comfortable student or teacher viewing
Camera	<b>Megapixel Camera</b>	<b>HD 1080P / 5.0</b> megapixel CMOS camera array, color corrected for microscopic
	<b>Resolution</b>	<b>Up to 2595 x 1944</b>
	<b>Frame Rate</b>	<b>30 fps at 1080P</b>
	Real Time, Full Speed Video	
	Compatibility	UVC (Universal Video Class) for true plug and play compatibility with Windows, Macintosh and Linux OS systems
	Power	Low power supplied by USB connection of computer $\pm 4.0$ Volts 250mA light indicator when on at top of unit
	Built-in	Mounted into monocular, on head; up-gradable for different camera solutions
Cable	USB 2.0; 1.8m A:B connector style	
Frame	Aluminum Single Cast body	"Y" shape base for ideal research application
	Integrated Stow and Go Handle™	Retractable Handle for transport and storage are integrated into the body of the unit.
	Integrated storage compartment	Storage compartment with built-in receptacle for the external power supply
	"Table Guard" protection base	Base outlined with resilient polymer to avoid daily damage to the Microscope or the surroundings
	Illumination	Ken-A-Vision LED cool lighting source with very long life (12,000+ hours), on/off switch, and dimmer rheostat. On/off switch and dimmer are separate, dimmer rheostat is low position light control
	<b>Upper Illuminator</b>	Upper light for Opaque and multi-dimensional specimens
	<b>Power</b>	<b>USB compliant / IEC 62684:2011 charging system standardized on external USB to AC adapter 5V--1A DC operation <u>included</u> or USB 2.0 computer port or backward compliant for legacy power supply 5.5V--500mA; 7.5V--800mA</b>
Optics	Nose Piece	Reversed 4 hole nose piece with 4 position ball bearing action stop, 360 full rotation
	Objectives	4 - lead free, humidity and climate protected by special coating; manufactured according to DIN: Achromat 2x N.A. 0.05, Achromat 4x N.A. 0.10, Achromat 10x N.A. 0.25, Achromat 40x(S) N.A. 0.65 (with built-in spring action tip to avoid crushing of specimen).
Stage	Mechanical Stage	Coated 130x 120mm, coaxial lower position separate knobs for movement in x and y direction (30 and 80mm) Scaled at 0.1mm on a vernier scale, locking screw, (stage stop) which limits the vertical hub of the stage, protecting samples and objectives. Rack & Pinion Abbe 1.25 NA & Iris
	Focus	Low position coaxial focus with left or right hand low drive control; with rotating mechanism and torque adjustment 1 coarse rotation from minimum to maximum stage height. Fine 0.002mm per unit scale mechanism, rubber grips on both fine and coarse focus knobs; Fine focusing scale value 0.002mm
Optional upgrades	Viewing Head	Compensation Free Monocular Head (SC12MH)
		Dual View with 30° incline opposing view (SC12DH)



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		Compensation Free Binocular Head (SC12BH)
		Compensation Free Trinocular Head (SC12TH)
		Compensation Free Digital Binocular Head (SC12CBH2)
	Eyepiece	WF16x, WF20x
	Achromatic Objective	20x, 60x(S)
	Plan Objective	4x, 10x, 20x, 40x(S), 60x(S), 100x(S) Oil
	Semi-Plan Objective	4x, 10x, 20x, 40x(S), 60x(S), 100x(S) Oil
Packing	Boxing	Two inner cartons in one outer carton
	Protective Cover	Durable Clear Dust cover with KAV logo
	Weights and Dims	17lbs/7.7kgs - 20" X 16" X 13"/50.8cm X 40.64cm X 33.02cm
Certificates	Patents	Multiple Patents Pending
	Quality Certificates	ISO:9001--2000
	Local Certificates	CE, CSA, RoHS
	Warranty	10 Years against manufacturing faults; 1 year on camera
Camera Controls	Digital Zoom	Yes Controlled by software buttons up to 16x
	Focus	Yes Auto
	White Balance	Yes Auto or manual controlled by software buttons
	Color/B&W	Yes Black and White controlled by software buttons
	Gamma Adjustment	Yes Auto or manual controlled by software buttons
	Negative/Positive	No Controlled by software buttons
	Image Rotation	Yes 360° in both directions controlled by software buttons
	Capture/Freeze	Yes Freeze image via software button
	Image Compression	Yes MJPEG