



**Comprehensive Scope 2
Digital Binocular Siedentopf Head
5.0MP HD Camera
PLAN Objectives**

**EduCam
optimized**



Model # TU-19642CP / TU-19642CP-230

Detailed Specifications (January 2014)

iOS & Android App	EduCam	Student App for iOS, Android, Mac, and Windows on multiple platforms (Tablets, Smartphones, & Desktop)
Software	Applied Vision 4	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
	Head	Eyepieces
Eyepiece tubes		1 – Variable adjustment ± 0.20x for varied eye strengths.
Integrated Top mounted Digital Camera with Siedentopf Binocular Head 45° incline View Tube		1 -- 45° Angle 360° rotation attached eyepieces comfortable student or teacher viewing with built in USB 2.0 at 5.0 Megapixel resolution camera with USB Jack for direct connection to computer from Head.
Camera	Megapixel Camera	HD 1080P / 5.0 megapixel CMOS camera array, color corrected for microscopic
	Resolution	Up to 2595 x 1944
	Frame Rate	30 fps at 1080P
	Compatibility	UVC (Universal Video Class) for true plug and play compatibility with Windows,
	Power	Low power supplied by USB connection of computer ±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,
	Power	USB compliant / IEC 62684:2011 charging system standardized on external USB to AC adapter 5V--1A DC operation included or USB 2.0 computer port or backward compliant for legacy power supply 5.5V--500mA; 7.5V--800mA
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: PLAN Achromat 4x N.A. 0.10, PLAN Achromat 10x N.A. 0.25, PLAN Achromat 40x(S) N.A. 0.65 (with built-in spring action tip to avoid crushing of specimen), PLAN Achromat 100x(S) N.A. 1.25 oil immersion (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)
		Compensation Free Trinocular Head (SC12TH)
		Compensation Free Digital Monocular Head (SC12CMH2)
		Compensation Free Digital Binocular Head (SC12CBH2)



**Comprehensive Scope 2
Digital Binocular Siedentopf Head
5.0MP HD Camera
PLAN Objectives**

**EduCam
optimized**



Model # TU-19642CP / TU-19642CP-230

	Eyepiece		WF16x, WF20x
	Achromatic Objective		4x, 10x, 20x, 40x(S), 60x(S), 100x(S) Oil
	Plan Objective		20x, 60x(S)
	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
	Annotation	Yes	Through the software