



Mentor Visual iQ+ Kit
MVIQ6120N-F404F414



Mentor Flex+ Kit
MFLC6120-F404414

Video borescope kits for GE Aerospace F404 and F414 engines

Kit applicability

The video borescope kits described in this are based on the same 6.1mm x 2m probe diameter and length, camera system, and optical tip adapters as the NAVAIR XLGOB6120M-N kit. These kits have equal to, and in general, superior technical performance compared to the XLGOB6120M-N.

Video borescope kit options – Everest Mentor Flex+ and Mentor Visual iQ+:

There are two video borescope kits which have been configured to functionally replace the XLGOB6120M-N, an Everest Mentor Flex+ kit and a Mentor Visual iQ+ kit.

The Everest Mentor Flex+ is a high-value portable borescope which includes Real3D stereo measurement and a standard resolution imager (SD) and QuickChange interchangeable probes. The Mentor Visual iQ+ product is an advanced feature product containing a multi-touch screen with 3D Phase Measurement and a high-definition (HD) camera system which supports interchangeable probes. See the technical description summary for additional details.

Kit part numbers

Mentor Visual iQ+ Kit – Part Number MVIQ6120N-F404F414

Mentor Flex+ Kit – Part Number MFLC6120-F404414

Technical description

Feature	MFLC6120-F404414	MVIQ6120N-F404F414 Kit
Product line	Everest Mentor Flex+	Mentor Visual IQ+ Enhance
Probe specifications	6.1mm Ø x 2m long	6.1mm Ø x 2m long
Optical tip set	Same as XLGOB6120M-N tip set (see below)	Same as XLGOB6120M-N tip set – 3DPM substituted for stereo (see below)
Handset dimensions	18.29 cm x 31.75 cm x 9.91 cm (12.5" x 7.2" x 3.9") (W-D-H)	17.1 cm x 19.7 cm x 38.1 cm (6.75 x 7.75 x 15") (W-D-H)
Case dimensions	35.0 x 54.5 x 23.0 cm (13.78" x 21.46" x 9.05") (W-D-H)	35.0 x 54.5 x 23.0 cm (13.78" x 21.46" x 9.05") (W-D-H)
Shipping box dimensions	23" x 15x 11" (width-depth-height)	23" x 15x 11" (width-depth-height)
Typical system weight in case	10.2 kg (22.5 lbs.)	10.2 kg (22.5 lbs.)
Typical system weight in case in overpack box	10.7 kg (23.5 lbs.)	10.7 kg (23.5 lbs.)
Measurement technology	Real3D Stereo and comparison	3D Phase Measurement with interactive Point-Cloud visualization and comparison
User interface	Joystick, touch-screen, and virtual keyboard	Joystick, touch-screen, and virtual keyboard
Ergonomic design	Unitized hand-held design, QuickChange probes	Unitized hand-held design, interchangeable probe
Illumination	Internally mounted White LEDs	Internally mounted white LEDs
Articulation	360° All-Way® servo driven tip articulation	360° All-Way® servo driven tip articulation
Internal memory	32 GB	80 GB
Gravity Detection	Tri-Axial Accelerometer	Tri-Axial Accelerometer
Battery	3-hr Li-Ion	2-hr Li-Ion
LCD Display	Integrated (5.8") touch-screen color TFT WXGA Advanced Wide View LCD VGA, daylight readable	Integrated 6.5" touch-screen color XGA, daylight readable
I/O Ports	(2) USB 2.0 "A" ports	(2) USB 3.0 "A" ports, (1) USB 3.0 "B" port
Video output	HDMI	HDMI, USB-C (DisplayPort Alt-Mode) 1080p, 60Hz
Still image formats	JPEG (JPG)	Bitmap (.BMP) & JPEG (JPG)
Video format	MPEG4 AVC / H.264 (.MP4 file)	MPEG4 AVC / H.264 (.MP4 file)
IP Rating	Tested to IP 65	Tested to IP 65
Accessories	Handset holder mount kit, neck strap, 16.75" rigidizer and gripper	Handset holder mount kit, neck strap, 16.75" rigidizer and gripper
MIL Standards	MIL-STD-810H, MIL-STD-461G	MIL-STD-810G, MIL-STD-461G
Agency compliance	Group 1, Class A: EN61326-1, UL, IEC, EN CSA-C22.2:61010-1, UN/DOT TI-T8	Group 1, Class A: EN61326-1, UL, IEC, EN CSA-C22.2:61010-1, UN/DOT TI-T8

Part Number	MFLC6120-F404414 Kit			MVIQ6120N-F404F414 Kit		
	Color Code and direction	FOV (degrees)	DOF (inches)	Color Code	FOV (degrees)	DOF (inches)
Headguard	Silver – fwd	50	2.3 – inf	Silver – fwd	50	2.3 – inf
XLG3T61120FG	Black – fwd	120	0.2 – 4.7	Black – fwd	120	0.2 – 4.7
XLG3T6180FN	Orange – fwd	80	0.1 – 0.8	Orange – fwd	80	0.1 – 0.8
XLG3T6190FF	Yellow – fwd	90	0.8 – inf	Yellow – fwd	90	0.8 – inf
XLG3T61120SG	Blue – side	120	0.1 – 4.0	Blue – side	120	0.1 – 4.0
XLG3T6190SF	Gray – side	90	0.8 – inf	Gray – side	90	0.8 – inf
XLG3T6150SF	Brown – side	50	1.8 – inf	Brown – side	50	1.8 – inf
XLG3T6180SN	Red – side	80	0.04 – 0.8	Red – side	80	0.04 – 0.8
XLG3TM616060FG	Black – fwd	60/60-stereo	0.16 – 3.15			
XLG3TM615050SG	Blue – side	50/50-stereo	0.8 – 1.97			
XL4TM61105FG			0.3 – 9.8	Black – fwd	105-3DPM	0.3 – 9.8
XL4TM61105SG			0.3 – 9.8	Blue – side	105-3DPM	0.3 – 9.8