December 20, 2019

Karl Storz Endoscopy America, Inc.
Winkie Wong
Manager, Regulatory Affairs
2151 E. Grand Ave
El Segundo, CA 90245

Re: K193235
Trade/Device Name: Telepack +
Number: 21 CFR 876.1500
Regulation Name: Endoscope and accessories
Regulatory Class: II
Product Code: FET
Dated: November 22, 2019
Received: November 25, 2019

Dear Winkie Wong:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm identifies combination product submissions. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part

801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance) and CDRH Learn (https://www.fda.gov/training-and-continuing-education/cdrh-learn). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice) for more information or contact DICE by email (DICE@fda.hhs.gov) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

Shanil P. Haugen, Ph.D.
Acting Assistant Director
DHT3A: Division of Renal,
Gastrointestinal, Obesity
and Transplant Devices
OHT3: Office of GastroRenal, ObGyn,
General Hospital and Urology Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Enclosure

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Food and Drug Administration

Indications for Use

Form Approved: OMB No. 0910-0120
Expiration Date: 06/30/2020
See PRA Statement below.

510(k) Number *(if known)*
K193235

Device Name
Telepack +

Indications for Use *(Describe)*
The TELE PACK + is an all-in-one Imaging System, which comprises a light source for illumination, Camera Control Unit (CCU) for use with compatible camera heads or video endoscopes for image processing, as well as a monitor for image display, intended for the visualization of endoscopic and microscopic procedures.

Type of Use *(Select one or both, as applicable)*

☒ Prescription Use (Part 21 CFR 801 Subpart D) ☐ Over-The-Counter Use (21 CFR 801 Subpart C)

CONTINUE ON A SEPARATE PAGE IF NEEDED.

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510(k) SUMMARY

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of the Safe Medical Devices Act (SMDA) of 1990 and 21 CFR 807.92. All data included in this document is accurate and complete to the best of KSEA's knowledge.

Applicant:	KARL STORZ Endoscopy-America, Inc 2151 E. Grand Avenue EI Segundo, CA 90245
Contact:	Winkie Wong Regulatory Affairs Manager 424-218-8379 (phone)
Date of Preparation:	December 10th, 2019
Type of 510(k) Submission:	Special
Device Identification:	Trade Name: Telepack + Classification Name: Endoscope and accessories
Product Code:	FET
Regulation:	21 CFR 876.1500 (Endoscope and Accessories)
Predicate Device(s):	Telepack X LED (K182696) – Primary
Reference Device(s):	Flexible Video Cytoscope HD-View (K191357); Image1 SPIES System (K160044); IMAGE1 SPIES (K131953)
Device Description:	The Telepack + is a portable and compact all-in-one imaging system that includes a 18.5 inch screen display, a camera control unit and internal LED light source, that is intended to be connected to a compatible device (camera head or videonendoscope) for the purpose of visualization and documentation of endoscopic and microscopic procedures as well as stroboscopy.

	The Telepack + includes a LED illumination light source to illuminate the intended area and a 18.5 inch monitor for display. It also allows the users to redefine the functions that take place when a button is pressed. The Telepack + is a non-patient contacting and require only wipe down as needed. TELEPACK + is compatible with the following devices that are either 510(k) exempt and FDA cleared:

Model Number	Description	Product Code	Clearance status
TH110	IMAGE1 HX	FET	K160044
TH111	IMAGE1 HX-P	FET	K160044
TH115/TH116	IMAGE1 D1 S	FET	K131953
11101VN	Video rhino-laryngoscope	EOB	K072387
11101VNS	Strobo video rhino-larygoscope	EOB	K072387
11102CM	CMOS Video-Rhino-	EOB	K182186
11900BN	Video bronchoscope	EOQ	K071530
11272VN/VNU	Video cysto-urethroscope	FBO	K062918
11272VH/VHU	Flexible Video Cystoscope HD-View	FAJ, FBO	K191357
8403AXC	Video Laryngoscope	CCW	510k exempt
8403BXC	Video Laryngoscope	CCW	510k exempt
8403DXC	Video Laryngoscope	CCW	510k exempt
8403XSI	C-MAC® S Imager with Office Interface	CCW	510k exempt
11301ABX	FIVE Intubation video	CAL	510k exempt
11302BDX	FIVE Intubation video	CAL	510k exempt
11303BNX	FIVE Intubation video	CAL	510k exempt
11304BCX	FIVE Intubation video	CAL	510k exempt
TC001/TC010	Video connection cable	FGB, FET	K141250, K160044
20140030	Microphone	EQL	510k exempt
20140030T	Adaptor for structure-borne	EQL	510k exempt
40160033	USB Foot Switches	EQL	510k exempt

Intended Use and Indications for use:	The TELE PACK + is an all-in-one Imaging System, which comprises a light source for illumination, Camera Control Unit (CCU) for use with compatible camera heads or video endoscopes for image processing, as well as a monitor for image display, intended for the visualization of endoscopic and microscopic procedures.
Technologica	The Telepack + is a portable and compact all-in-one imaging system that

l Characteristics:	includes a 18.5 inch screen display, a camera control unit and internal LED light source, that is intended to be connected to a compatible device (camera head or videoendoscope) for the purpose of visualization and documentation of endoscopic and microscopic procedures as well as stroboscopy. The Telepack + includes, but not limited to, the following features: • Image capture • Zoom • Brightness control • Light source control • White Balance The dimension of the subject device is 450 x 350 x 150 mm and weighs 9kg. It is not intended to be soiled and is non-patient contacting. It includes moderate level of concern software. The device has been tested and passed the electrical safety and EMC testing, which is certified to be Class I protection against electrical shock, Type BF protection against electrical shock from stroboscopy and camera applied parts, Type CF protection against electrical shock from light and lastly drip-water protection against moisture per IPX1.

Non-Clinical
 	
Performance Data:
	There are no performance standards or special controls developed under Section 514 of the FD&C Act for endoscopes. However, the Telepack + follows the FDA recognized consensus standards and is tested according to the following standards and FDA Guidance:
	
	• Electrical Safety and EMC
	  o IEC 60601-1
	  o IEC 60601-1-2
	  o IEC 60601-2-18
	  o IEC 62471
	• Software Verification and Validation Testing
	  o Guidance for the Content of Premarket Submissions for Software Contained in Medical Device
	  o Level of concern: Moderate
	• Performance Testing
	  o Minimum Illumination
	  o Spatial Resolution
	  o Color Performance

	○ Latency ○ White Balance ○ AE Step Response ○ Head Button Functionality Additional bench testing was performed to ensure the device met its design specifications. The bench testing performed verified and validated that the Telepack + has met all its design specification and is substantially equivalent to its predicate devices.
Substantial Equivalence:	The intended use, operating principles, technological characteristics and features are similar, if not identical, between that subject device and the Telepack X LED (K182696). The minor difference between the subject and predicate devices that does not raise new or different questions or safety and effectiveness are: • The subject device only offers automatic shutter speed, whereas the predicate device offers both automatic and manual shutter speed options. • The display resolution is increased from XGA 1204 x 768p to HD 1920 x 1080p to meet market demands. • Fuse replacement, Audio Capture, Video input and video playback features are removed for the subject device. • Camera head interface has changed; thus the compatible camera head models are different than the predicates • User interface has changed from Telepack X LED's own interface to a KARL STORZ unified user interface so all KARL STORZ devices can have the same look and feel. • Change in input technology (button to touchscreen). All other inputs (i.e. keyboard, mouse, head buttons, footswitches) remain the same. • The subject utilizes internal storage while predicate device allows connection to an external storage device. • Screen size is increased from 15" to 18.5" to meet market demands. • The weight has increased from 7kg to 9 kg, respectively to accommodate minor change in technology and screen size. As proven by the comparisons, the above differences do not raise different questions of safety and effectiveness because the intended use, operating principles, technological characteristics, and features are similar, if not identical. Both systems also comply with identical standards and safety testing, where applicable. Substantial equivalence on the effectiveness of the subject device is

	supported by the comparison of the images and standard image quality characteristics including, but not limited to, resolution, latency, white balance and AE step response between subject and predicate devices.
Clinical Performance Data:	Clinical performance is not required to demonstrate substantial equivalence to the predicate devices. Non-clinical bench testing was sufficient to establish substantial equivalence.
Conclusion:	The Telepack + is substantially equivalent to its predicate device. The non-clinical bench and comparative testing demonstrate that the device is as safe and effective as the legally marketed predicate device.