



July 3, 2024

Hony Medical Co., Ltd.  
% Boyle Wang  
General Manager  
Shanghai Truthful Information Technology Co., Ltd.  
RM.1801, No. 161, East Lujiazui Rd.  
Pudong, Shanghai 200120  
CHINA

Re: K241615

Trade/Device Name: Transducer Probe Cover  
Regulation Number: 21 CFR 892.1570  
Regulation Name: Diagnostic Ultrasonic Transducer  
Regulatory Class: Class II  
Product Code: ITX  
Dated: June 5, 2024  
Received: June 5, 2024

Dear Boyle Wang:

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 (the 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 available 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.

Additional information about changes that may require a new premarket notification are provided in the FDA guidance documents entitled "Deciding When to Submit a 510(k) for a Change to an Existing Device" (<https://www.fda.gov/media/99812/download>) and "Deciding When to Submit a 510(k) for a Software Change to an Existing Device" (<https://www.fda.gov/media/99785/download>).

Your device is also subject to, among other requirements, the Quality System (QS) regulation (21 CFR Part 820), which includes, but is not limited to, 21 CFR 820.30, Design controls; 21 CFR 820.90, Nonconforming product; and 21 CFR 820.100, Corrective and preventive action. Please note that regardless of whether a change requires premarket review, the QS regulation requires device manufacturers to review and approve changes to device design and production (21 CFR 820.30 and 21 CFR 820.70) and document changes and approvals in the device master record (21 CFR 820.181).

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 Part 803) for devices or postmarketing safety reporting (21 CFR Part 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 Part 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR Parts 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 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](mailto:DICE@fda.hhs.gov)) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

**Marjan Nabili -S** for

Yanna Kang, Ph.D.

Assistant Director

Mammography and Ultrasound Team

DHT8C: Division of Radiological Imaging

And Radiation Therapy Devices

OHT8: Office of Radiological Health

Office of Product Evaluation and Quality

Center for Devices and Radiological Health

Enclosure

## Indications for Use

Submission Number (if known)

K241615

Device Name

Transducer Probe Cover

Indications for Use (Describe)

Transducer Probe Cover placed over diagnostic ultrasound transducer/ probe scan head instruments. The cover allows use of the transducer in scanning and needle guided procedures for body surface, endocavity, and intra-operative diagnostic ultrasound, while helping to prevent transfer of microorganisms, body fluids, and particulate material to the patient and healthcare worker during reuse of the transducer. The cover also provides a means for maintenance of a sterile field. Transducer Probe Cover are furnished sterile; single use patient/procedure, disposable.

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

## K241615

This summary of 510(k) safety and effectiveness information is being submitted in accordance with requirements of 21 CFR 807.92.

### **1.0 Submitter's Information**

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Tel: +86 15916327827  
Contact: Zhu Huina

### **Designated Submission Correspondent**

Contact: Mr. Boyle Wang  
Name: Shanghai Truthful Information Technology Co., Ltd.  
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China  
Tel: +86-21-50313932  
Email: [Info@truthful.com.cn](mailto:Info@truthful.com.cn)

Date of Preparation: Jun.27,2024

### **2.0 Device Information**

Trade name: Transducer Probe Cover  
Common name: Ultrasonic Diagnostic Transducer Probe Cover  
Classification name: Transducer, Ultrasonic, Diagnostic.  
Model(s): Various Dimension  
Production code: ITX  
Regulation number: 21 CFR 892.1570  
Classification: Class II  
Panel: Radiology

### **3.0 Predicate and Reference Device Information**

#### **Predicate#**

Manufacturer: Hony Medical Co., Ltd.  
Trade Device: Transducer Probe Cover

510(k) number: K221278

#### **Reference#**

Manufacturer: CIVCO MEDICAL INSTRUMENTS CO., INC.  
Trade Device: GENERAL PURPOSE TRANSDUCER COVER  
510(k) number: K970513

#### **4.0 Device Description**

The subject device is composed of transparent thin-walled polyurethane sleeve, rubber ring and (or) tape strip. A conventional 0.05mm thin, 49 GSM (Grams per Square Meter), transparent high strength polyurethane film tube shape, in various dimensions with heat sealed distal end to be applied over a transducer probe to provide a Transducer Cover that can be used to minimize contamination between patient and ultrasound probe during ultrasound scanning procedures for body surface, endocavity and intra-operative diagnostic ultrasound. This may help with easier cleaning and disinfection of the probe.

Ultrasound imaging is not impaired by use of the cover as it is intended. Adequate coupling between the cover and the transducer is required. The Transducer Probe Cover is utilized by applying sterile transmission, coupling, or lubricating gel onto the transducer face or into closed end of cover, inserting ultrasound transducer into closed end of cover and unrolling cover over length of the transducer as desired, and securing open end of cover with bands as necessary the removal process is accomplished by pulling the cover off the transducer in a reverse method from the application.

The subject device is furnished in sterile condition, for single use patient/procedure use, disposable.

As the device is single use device, which is individually packaged sterile devices. The packaging is compatible with the product's EO sterilization method. The sterilization validation confirms the packaging is qualified bacterial film to maintain the sterilization condition of the device.

#### **5.0 Indication for Use Statement**

Transducer Probe Cover placed over diagnostic ultrasound transducer/ probe scan head instruments. The cover allows use of the transducer in scanning and needle guided procedures for body surface, endocavity, and intra-operative diagnostic ultrasound, while helping to prevent transfer of microorganisms, body fluids, and particulate material to the patient and healthcare worker during reuse of the transducer. The cover also provides a means for maintenance of a sterile field.

Transducer Probe Cover are furnished sterile; single use patient/procedure, disposable.

## **6.0 Summary of Non-Clinical Testing**

In this current submission, just expand the intended use scope of the subject device. As there were no materials, structure, dimensions or performance changes made to the subject device when compared to the primary predicate device, no additional non-clinical testing was considered necessary to support the substantial equivalence.

### **Performance Bench Testing**

As there are no any technological characteristics changes as part of this submission from the previous clearance, no performance bench testing was included as part of this submission.

There are no differences between the predicate Transducer Probe Cover and the proposed Transducer Probe Cover that could affect the shelf life or sterility; therefore, sterilization and shelf-life evaluations were not required.

### **Biocompatibility Testing**

The proposed Transducer Probe Cover does not introduce any new direct or indirect patient contacting materials, as compared to the previous clearance predicate Transducer Probe Cover.

Since the subject device expand the indication for use scope, it can be used in endocavity, and intra-operative diagnostic ultrasound, additionally biocompatibility evaluation Items including Thrombogenicity and Complement Activation Testing

Per ISO 10993-4 were performed due to the contact level of tissue. And the biocompatibility test results reviewed by the FDA for the predicate Transducer Probe Cover (reference K221278) also valid, can be support the proposed Transducer Probe Cover.

## 7.0 Technological Characteristic Comparison Table

**Table 2- Comparison of Technology Characteristics**

| Item                            | Subject Device                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Predicate Device                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference Device                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Conclusion                                                                                                                                                                                                                                                                                                           |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 510(k) No.                      | K241615                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | K221278                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | K970513                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | --                                                                                                                                                                                                                                                                                                                   |
| Product Code                    | ITX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ITX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ITX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Same                                                                                                                                                                                                                                                                                                                 |
| Regulation No.                  | 21 CFR 892.1570                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 21 CFR 892.1570                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 21 CFR 892.1570                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Same                                                                                                                                                                                                                                                                                                                 |
| Class                           | II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Same                                                                                                                                                                                                                                                                                                                 |
| Intended Use/Indication for Use | Transducer Probe Cover placed over diagnostic ultrasound transducer/ probe scan head instruments. The cover allows use of the transducer in scanning and needle guided procedures for body surface, endocavity and intra-operative diagnostic ultrasound, while helping to prevent transfer of microorganisms, body fluids, and particulate material to the patient and healthcare worker during reuse of the transducer. The cover also provides a means for maintenance of a sterile field. Transducer Probe Cover are furnished sterile; single use patient/procedure, disposable. | Transducer Probe Cover placed over diagnostic ultrasound transducer/ probe scan head instruments. The cover allows use of the transducer in scanning and needle guided procedures for external intact skin diagnostic ultrasound, while helping to prevent transfer of microorganisms, body fluids, and particulate material to the patient and healthcare worker during reuse of the transducer. The cover also provides a means for maintenance of a sterile field. Transducer Probe Cover are furnished sterile; single use patient/procedure, disposable. | Protective cover or sheath placed over diagnostic ultrasound transducer / probe scan head instruments. The cover allows use of the transducer in scanning and needle guided procedures for body surface, endocavity, and intra-operative diagnostic ultrasound, while helping to prevent transfer of microorganisms, body fluids , and particulate material to the patient and healthcare worker during reuse of the transducer (both sterile and non-sterile covers) . The cover also provides a means for maintenance of a sterile field (sterile covers only) . CIVCO Poly Utrasound Transducer | Compare to the predicate device, the subject device expanded the scope of the indication for use. The subject device additionally can be used for endocavity, and intra-operative diagnostic ultrasound.<br><br>Thrombogenicity and Complement Activation Testing were performed due to the contact level of tissue. |

|                             |                                                                             |                                                                             |                                                                                                                |                                                                                      |
|-----------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                             |                                                                             |                                                                             | Covers are furnished sterile & non-sterile single use patient / procedure, disposable.                         |                                                                                      |
| Materials & Construction    | Polyurethane, tubular, sealed                                               | Polyurethane, tubular, sealed                                               | Polyurethane and polyethylene extruded thermoplastic film, in one-piece, open on one end, closed on other end. | Same                                                                                 |
| Model                       | Various Size                                                                | Various Size                                                                | Various Size                                                                                                   | Same                                                                                 |
| Microbial Barrier           | Meets requirements of ASTM F1671-13 for prevention of blood-borne pathogens | Meets requirements of ASTM F1671-13 for prevention of blood-borne pathogens | Not Publicly Available                                                                                         | Same                                                                                 |
| Acoustic Performance        | Acoustic Impedance: $1.60 \times 10^6$ Pa s/m                               | Acoustic Impedance: $1.60 \times 10^6$ Pa s/m                               | Not Publicly Available                                                                                         | Same                                                                                 |
|                             | Acoustic Velocity: 1594 m/s                                                 | Acoustic Velocity: 1594 m/s                                                 | Not Publicly Available                                                                                         |                                                                                      |
|                             | Acoustic Attenuation: 0.01dB/(cm·MHZ)                                       | Acoustic Attenuation: 0.01dB/(cm·MHZ)                                       | Not Publicly Available                                                                                         |                                                                                      |
| Sterile                     | EO sterilization, SAL $10^{-6}$                                             | EO sterilization, SAL $10^{-6}$                                             | Both in EO sterilization and non-sterile                                                                       | Same                                                                                 |
| Disposable, Single Use Only | Yes                                                                         | Yes                                                                         | Yes                                                                                                            | Same                                                                                 |
| Shelf Life                  | 3 years                                                                     | 3 years                                                                     | Not Publicly Available                                                                                         | Same                                                                                 |
| Biocompatibility            | Conform with ISO10993-1 (ISO10993-4, ISO10993-5, ISO10993-10, ISO10993-11)  | Conform with ISO10993-1 (ISO10993-4, ISO10993-5, ISO10993-10, ISO10993-11)  | Conform with ISO 10993 standards                                                                               | Thrombogenicity , Complement Activation Testing and Platelet Activation Test per ISO |

|  |  |  |  |                                                                     |
|--|--|--|--|---------------------------------------------------------------------|
|  |  |  |  | 10993-4<br>were performed due to<br>the contact level of<br>tissue. |
|--|--|--|--|---------------------------------------------------------------------|

Except the expand the applicable scope of indication for use for the subject device, there is no any changes made on the technological characteristics of the subject device are identical to those of predicate device. The materials, dimensions, sterilization methods, processing and manufacturing are no any changes were made to the subject device.

The subject device is substantially equivalent to the predicate devices with respect to technological characteristics, and performance characteristics. The differences between the applicable scope of the proposed and predicate devices do not alter the substantially equivalent since additional biocompatibility testing evaluation has been performed.

## **8.0 Conclusion**

The conclusions drawn from the comparison and analysis above demonstrate that the proposed device is as safe, as effective, and performs as well as the legally marketed predicated device and raises no new questions of safety or effectiveness. The differences between both devices are insignificant in terms of safety and effectiveness.