



June 8, 2026

Weero Co., Ltd.
Han Moon Young
Regulatory Affairs
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Gwonseon-Gu Suwon-Si, Gyeonggi-Do
Suwon, Gyeonggi 16648
Republic Of Korea

Re: K253542
Trade/Device Name: Apollo Quattro (APQ-10M)
Regulation Number: 21 CFR 890.5850
Regulation Name: Powered Muscle Stimulator
Regulatory Class: Class II
Product Code: IPF, GZJ
Dated: November 14, 2025
Received: May 6, 2026

Dear Han Moon Young:

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 Management System Regulation (QMSR) (21 CFR Part 820), which includes, but is not limited to, ISO 13485 clause 7.3 (Design controls), ISO 13485 clause 8.3 (Nonconforming product), ISO 13485 clause 8.5.2 (Corrective action), and ISO 13485 clause 8.5.3 (Preventative action). Please note that regardless of whether a change requires premarket review, the QMSR requires device manufacturers to review and approve changes to device design and production (ISO 13485 clause 7.3 and ISO 13485 clause 7.5) and document changes and approvals in the Medical Device File (ISO 13485 clause 4.2.3).

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 Management System Regulation (QMSR) (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.

All medical devices, including Class I and unclassified devices and combination product device constituent parts are required to be in compliance with the final Unique Device Identification System rule ("UDI Rule"). The UDI Rule requires, among other things, that a device bear a unique device identifier (UDI) on its label and package (21 CFR 801.20(a)) unless an exception or alternative applies (21 CFR 801.20(b)) and that the dates on the device label be formatted in accordance with 21 CFR 801.18. The UDI Rule (21 CFR 830.300(a) and 830.320(b)) also requires that certain information be submitted to the Global Unique Device Identification Database (GUDID) (21 CFR Part 830 Subpart E). For additional information on these requirements, please see the UDI System webpage at <https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/unique-device-identification-system-udi-system>.

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) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,


JITENDRA V. VIRANI -S

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Assistant Director
DHT5B: Division of Neuromodulation and
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Enclosure

Indications for Use

510(k) Number (if known)
K253542

Device Name
Apollo Quattro (APQ-10M)

Indications for Use (Describe)

Q-LF handpiece, Q-FX handpiece, Q-SC handpiece, and Q-BT handpiece in EMS mode are intended for:

- Relaxation of muscle spasms
- Prevention or retardation of disuse atrophy
- Increasing local blood circulation
- Muscle re-education
- Maintaining or increasing range of motion
- Immediate postsurgical stimulation of calf muscles to prevent venous thrombosis

Q-EP handpiece in TENS mode is intended for:

- Symptomatic relief and management of chronic, intractable pain
- Post-surgical acute pain
- Post-trauma acute pain

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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1. Submitter and US Official Correspondent

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Data Prepared: May 22, 2026

2. Device Information

Trade/Device Name: Apollo Quattro / APQ-10M

Regulation Name: - Powered Muscle Stimulator
- Transcutaneous electrical nerve stimulator for pain relief

Product Code: IPF, GZJ

Regulatory Class: Class II

Regulation Number: 21CFR890.5850, 21CFR882.5890

3. Predicate Devices(Equivalent Legally Marketed Device)

Manufacturer	Device	510(k) No.
Primary Predicate Device		
WEERO Co.,Ltd.	EVE Synergy	K241433
Secondary Predicate		
InMode Ltd.	EVOLVE System with the T3 Applicator	K210877

4. Description of the Device

Apollo Quattro is a combination stimulator to deliver electrical muscle stimulation (EMS) and transcutaneous electrical nerve stimulation (TENS). The device consists of a main console unit with a 10.1-inch LCD touchscreen interface and five handpieces: Q-LF, Q-FX, Q-SC, Q-BT, and Q-EP handpieces. The Q-LF, Q-FX, Q-SC, and Q-BT handpieces deliver electrical muscle stimulation (EMS) therapy. The Q-EP handpiece delivers transcutaneous electrical nerve stimulation (TENS) therapy using a monopolar electrode configuration with a return patch (cleared under K042301) to complete the current circuit. Additional components include patch cable, funnel hose, and power cable.

This device also includes other therapeutic components and modes that are not within the scope of this 510(k) review. The radio frequency and cooling modes were previously cleared under K253261. The device includes a Class I exempt powered heating pad component that operates as a standalone mode and is not within scope of this 510(k) review. Since all these modes are integrated into the same device and share common labeling, they are referenced here for completeness.

5. Indications for use (intended use)

Q-LF handpiece, Q-FX handpiece, Q-SC handpiece, and Q-BT handpiece in EMS mode are intended for:

- Relaxation of muscle spasms
- Prevention or retardation of disuse atrophy
- Increasing local blood circulation
- Muscle re-education
- Maintaining or increasing range of motion
- Immediate postsurgical stimulation of calf muscles to prevent venous thrombosis

Q-EP handpiece in TENS mode is intended for:

- Symptomatic relief and management of chronic, intractable pain
- Post-surgical acute pain
- Post-trauma acute pain

6. Substantial Equivalence Discussion

Note: The Apollo Quattro device includes a Class I exempt powered heating pad component (21 CFR 890.5740, Product Code IRT) that operates as a standalone therapeutic mode. As this component is Class I exempt, substantial equivalence does not need to be established with a predicate device for the heating pad functionality, and therefore it is not part of this 510(k) review. Moreover, the device also includes radio frequency and cooling modes where were previously cleared under K253261 and not within the scope of subject submission. While this device includes EMS, TENS, powered heating, radio frequency, and cooling modalities, safety and effectiveness have not been evaluated of combined use of two or more of these modalities or sequential use of any of these modalities. Since these modalities are intended to be used as a standalone and none of them are intended to be used in combination or sequentially, the scope of this submission review is on individual use of EMS and TENS modalities only. Therefore, the substantial equivalence discussion below focuses solely on the EMS and TENS functionalities as a standalone use.

1) Comparison Information

Name	Subject Device	Primary Predicate Device	Secondary Predicate Device	
Device Name	Apollo Quattro(APQ-10M)	EVE Synergy(EVE-20M)	EVOLVE System with the T3 Applicator	Comparison
Manufacturer	WEERO Co.,Ltd.	WEERO Co.,Ltd.	InMode Ltd.	
510(k) No.	-	K241433	K210877	
Product Code, Class	IPF, GZJ Class II	IPF, GZJ Class II	IPF, GZJ Class II	Identical
Indications for use	EMS is used for: <ul style="list-style-type: none"> • Relaxation of muscle spasms • Prevention or retardation of disuse atrophy • Increasing local blood circulation • Muscle re-education • Maintaining or increasing range of motion • Immediate post-surgical stimulation of calf muscles to prevent venous thrombosis TENS is used for: <ul style="list-style-type: none"> • Symptomatic relief and management of chronic, intractable pain • Post-surgical acute pain • Post-trauma acute pain 	EMS is used for: <ul style="list-style-type: none"> • Relaxation of muscle spasms • Prevention or retardation of disuse atrophy • Increasing local blood circulation • Muscle re-education • Maintaining or increasing range of motion • Immediate post-surgical stimulation of calf muscles to prevent venous thrombosis TENS is used for: <ul style="list-style-type: none"> • Symptomatic relief and management of chronic, intractable pain • Post-surgical acute pain • Post-trauma acute pain 	EMS mode is intended for: <ul style="list-style-type: none"> • Relaxation of muscle spasms • Prevention or retardation of disuse atrophy • Increasing local blood circulation • Muscle re-education • Maintaining or increasing range of motion • Immediate post-surgical stimulation of calf muscles to prevent venous thrombosis TENS mode is intended for: <ul style="list-style-type: none"> • Symptomatic relief and management of chronic, intractable pain • Post-surgical acute pain • Post-trauma acute pain 	Identical

Apollo Quattro
510(k) Summary_K253542

Name	Subject Device	Primary Predicate Device	Secondary Predicate Device	Comparison
Device Name	Apollo Quattro(APQ-10M)	EVE Synergy(EVE-20M)	EVOLVE System with the T3 Applicator	
Manufacturer	WEERO Co.,Ltd.	WEERO Co.,Ltd.	InMode Ltd.	
510(k) No.	-	K241433	K210877	
Design	<p>The Apollo Quattro consists of an AC/DC power supply unit, controller, and user interface including an LCD touch screen. The delivery of the electrical energy is controlled by a Start/Stop button positioned on the front panel.</p> <p>The System supports the following components:</p> <ul style="list-style-type: none"> ▪ LCD display touch screen ▪ Audio loudspeaker ▪ 24V AC/DC power supply ▪ Controller 	<p>The EVE Synergy consists of an AC/DC power supply unit, controller, and user interface including an LCD touch screen. The delivery of the electrical energy is controlled by a Start/Stop button positioned on the front panel.</p> <p>The System supports the following components:</p> <ul style="list-style-type: none"> ▪ LCD display touch screen ▪ Audio loudspeaker ▪ 24V AC/DC power supply ▪ Controller 	<p>The EVOLVE System with T3 Applicator consists of an AC/DC power supply unit, Controller and user interface including an LCD touch screen. The delivery of the RF/electrical energy is controlled by a Start/Stop button positioned on the front panel.</p> <p>The System supports the following components:</p> <ul style="list-style-type: none"> • LCD display touch Screen • Audio loudspeaker • 48V AC/DC power Supply • Controller 	Identical
- Components Console	<p>The Apollo Quattro consists of the following components:</p> <ul style="list-style-type: none"> ▪ Power supply unit, Console, including controller and user interface including an LCD touch screen. ▪ The system includes 5 handpiece types, with up to 2 handpieces connected simultaneously to the console via 2 designated cables and 2 designated connection ports 	<p>The EVE Synergy consists of the following components:</p> <ul style="list-style-type: none"> ▪ Power supply unit, Console, including controller and user interface including an LCD touch screen. ▪ Handpieces with up to 3 units connected to the console via 3 designated cables and 3 designated connection ports. 	<p>The EVOLVE System consists of the following components:</p> <ul style="list-style-type: none"> • Console, including a power supply unit, controller and user interface including an LCD touch screen. • T3 Applicator with up to 6 units connected to the console via 6 designated cables and 6 designated connection ports. 	<p>Not identical.</p> <p>Although the number of connection ports is different from the predicate device, both the subject and predicate devices comply with IEC 60601-1 and IEC 60601-2-10 requirements and the difference doesn't impact essential performance, basic safety or substantial equivalence.</p>

Apollo Quattro
510(k) Summary_K253542

Name	Subject Device	Primary Predicate Device	Secondary Predicate Device	Comparison
Device Name	Apollo Quattro(APQ-10M)	EVE Synergy(EVE-20M)	EVOLVE System with the T3 Applicator	
Manufacturer	WEERO Co.,Ltd.	WEERO Co.,Ltd.	InMode Ltd.	
510(k) No.	-	K241433	K210877	
Dimension	Main unit: 40.5cm(W) x 39.1cm(D) x 104.1cm(H) [15.9"(W) x 15.4"(D) x 41"(H)] Q-LF handpiece: 37.3mm(W) x 172.8mm(D) x 37.6mm(H) [1.5"(W) x 6.8"(D) x 1.5"(H)] Q-FX handpiece: 28.8mm(W) x 147.1mm(D) x 28.8mm(H) [1.1"(W) x 5.8"(D) x 1.1"(H)] Q-SC handpiece: 71.5mm(W) x 172.5mm(D) x 53.1mm(H) [2.8"(W) x 6.8"(D) x 2.1"(H)] Q-BT handpiece: 70.8mm(W) x 168.4mm(D) x 70.8mm(H) [2.8"(W) x 6.6"(D) x 2.8"(H)] Q-EP handpiece: 37.3mm(W) x 167.6mm(D) x 37.3mm(H) [1.5"(W) x 6.6"(D) x 1.5"(H)]	Main unit: 22.4cm W x 41.8cm D x 32.5cm H [8.8" W x 16.5" D x 12.8" H] Synergy handpiece: 167.5mm L x 43 mm D [6.6" L x 1.7" D] Pro handpiece: 136mm L x 27.5mm D [5.4" L x 1.1" D] Ball type tip: 86mm L x 18mm D [3.4" L x 0.7" D] T type tip: 80mm L x 50mm D [3.1" L x 2.0" D] COMB type tip: 88mm L x 30mm D [3.5" L x 1.2" D]	Main unit: 46cm W x 46cm D x 100cm H [18.2" W x 18.2" D x 44" H] T3 Applicator unit: 67.3mm L x 54.3mm D [2.7" L x 2.2" D]	<p style="text-align: center;">Not identical.</p> <p>Although the dimension and weight of the subject device is different from the predicate device, both the subject and predicate devices comply with IEC 60601-1 and IEC 60601-2-10 requirements, which ensures that they meet the necessary safety and performance standards. The difference in dimension and weight does not affect essential performance, basic safety, or substantial equivalence.</p>
Weight	Main unit: 20 kg / 44.1 lb Q-LF handpiece: 78.5 g [0.2 lb] Q-FX handpiece: 48.5 g [0.1 lb] Q-SC handpiece: 181.5 g [0.4 lb] Q-BT handpiece: 138 g [0.3 lb] Q-EP handpiece: 220 g [0.5 lb]	Main unit: 7 kg [15.4 lbs.] Synergy handpiece: 0.12 kg [0.26 lbs.] Pro handpiece: 0.06 kg [0.13 lbs.] Ball type tip: 0.04 kg [0.08 lbs.] T type tip: 0.02 kg [0.04 lbs.] COMB type tip: 0.02 kg [0.04 lbs.]	Main unit: 33.0 Kg [73 lbs.] T3: 0.16 Kg [0.4 lbs.]	

Apollo Quattro
510(k) Summary_K253542

Name	Subject Device	Primary Predicate Device	Secondary Predicate Device	Comparison
Device Name	Apollo Quattro(APQ-10M)	EVE Synergy(EVE-20M)	EVOLVE System with the T3 Applicator	
Manufacturer	WEERO Co.,Ltd.	WEERO Co.,Ltd.	InMode Ltd.	
510(k) No.	-	K241433	K210877	
Applicator unit treatment area	Electrode area of the Q-LF handpiece(4ea) : 6.78 cm ² Electrode area of the Q-FX handpiece(2ea) : 3.9 cm ² Electrode area of the Q-SC handpiece(2ea) : 51.6 cm ² Electrode area of the Q-BT handpiece(6ea) : 27.57 cm ² Electrode area of the Q-EP handpiece(1ea) : 10.37 cm ²	Synergy handpiece electrode(2ea): 6 cm ² Ball type tip: 10.17 cm ² T type tip: 7.85 cm ² COMB type tip: 28.83 cm ²	6.46 cm ²	Not identical. However, the difference doesn't raise new questions of safety and effectiveness.
Power Source(s)	Main Line Frequency (nominal) 50-60Hz Input Voltage (nominal) 100-240VAC Input Current (rms) 4A	Power Supply Adapter - Input: 100-240Vac, 50/60Hz, 1.4-0.7A - Output: 24Vdc, 5A	Main Line Frequency (nominal) 50-60Hz Input Voltage (nominal) 100-240VAC Input Current (rms) 4A	Identical
Method of Line Current Isolation	Independent transformer isolated	Independent transformer isolated	Independent transformer isolated	Identical
Electrical Type	Type BF	Type BF	Type BF	Identical
Patient Leakage Current – Normal Condition (µA)	<100uA patient leakage	<100uA patient leakage	<100uA patient leakage	Identical
Patient Leakage Current – Single Fault Condition (µA)	<300uA line leakage	<300uA line leakage	<300uA line leakage	Identical
Number of Output Modes	5	2	Unknown	Not identical. However, the difference doesn't raise new questions of safety and effectiveness.
Number of Output Channels	2	3	6	
Synchronous or Alternating	See Output Specifications Below	See Output Specifications Below	See Output Specifications Below	Identical
Method of Channel Isolation	Through transformers and isolators	Through transformers and isolators	Through transformers and isolators	Identical

Apollo Quattro
510(k) Summary_K253542

Name	Subject Device	Primary Predicate Device	Secondary Predicate Device	Comparison
Device Name	Apollo Quattro(APQ-10M)	EVE Synergy(EVE-20M)	EVOLVE System with the T3 Applicator	
Manufacturer	WEERO Co.,Ltd.	WEERO Co.,Ltd.	InMode Ltd.	
510(k) No.	-	K241433	K210877	
Regulated Current or Regulated Voltage (output signal only)	Regulated voltage on all channels With current limit	Regulated voltage on all channels With current limit	Regulated voltage on all channels With current limit	Identical
Software/Firmware/Microprocessor Control	Yes	Yes	Yes	Identical
Automatic Overload Trip	Yes	Yes	Yes	Identical
Automatic No-Load Trip	Yes	Yes	Yes	Identical
Automatic Shut Off	Yes	Yes	Yes	Identical
Patient Override Control	No	No	Yes	Identical
- On/Off Status	Yes	Yes	Yes	Identical
- Battery	No battery	No battery	No battery	Identical
-Voltage/Current level	Yes	Yes	Yes	Identical
Timer Range	0-60 [minutes]	0-60 [minutes]	0-60 [minutes]	Identical
Compliance with 21 CFR 890.5850 (IPF)	Yes	Yes	Yes	Identical
Compliance with 21 CFR 882.5890 (GZJ)	Yes	Yes	Yes	Identical
EMS Output				
Output Specifications: Waveform	Symmetrical Biphasic Waveform	Symmetrical Biphasic Waveform	Symmetrical Biphasic Waveform	Identical
Pulse Shape	Rectangular	Rectangular	Rectangular	Identical

Apollo Quattro
510(k) Summary_K253542

Name	Subject Device	Primary Predicate Device	Secondary Predicate Device	Comparison
Device Name	Apollo Quattro(APQ-10M)	EVE Synergy(EVE-20M)	EVOLVE System with the T3 Applicator	
Manufacturer	WEERO Co.,Ltd.	WEERO Co.,Ltd.	InMode Ltd.	
510(k) No.	-	K241433	K210877	
Maximum Output Voltage ($\pm 20\%$)	34 V @500 Ω 48 V @2k Ω 48 V @10k Ω	34 V @500 Ω 48 V @2k Ω 48 V @10k Ω	30 V @500 Ω 54 V @2k Ω 54 V @10k Ω	Identical
Maximum Output Current ($\pm 20\%$)	68 mA @500 Ω 24 mA @2k Ω 4.8 mA @10k Ω	68 mA @500 Ω 24 mA @2k Ω 4.8 mA @10k Ω	60 mA @500 Ω 27 mA @2k Ω 5.4 mA @10k Ω	
Pulse Width(μ sec.) The output active positive pulse width	100 to 155 [μ s]	100 to 155 [μ s]	20 to 400 [μ s]	Identical
Frequency (Hz)	3 to 200 [Hz]	3 to 200 [Hz]	3 to 200 [Hz]	Identical
Net Charge @ 500 Ohms [μ C/pulse]	0 [μ C] @ 500 Ω	0 [μ C] @ 500 Ω	0 [μ C] @ 500 Ω	Identical
Maximum Phase Charge [μ C]	10.54 [μ C] @500 Ω	10.54 [μ C] @500 Ω	24 [μ C] @500 Ω	Identical
Maximum Current (RMS) Density [mA/cm ²]	1.28 [mA/cm ²] Surface = 3.9 cm ²	1.31 [mA/cm ²] Surface = 6 cm ²	0.74 [mA/cm ²] Surface = 6.46cm ²	Not identical. The maximum current density and maximum power density of the subject device are similar to the predicate devices(K241433); therefore, they do not raise new questions about safety and effectiveness.
Maximum Power Density [mW/cm ²]	43.6 [mW/cm ²] @ 500 Ω	47 [mW/cm ²] @ 500 Ω	22.2 [mW/cm ²] @ 500 Ω	
Burst Mode (i.e., pulse trains) a. Pulses per burst b. Bursts per second c. Burst duration (seconds) d. Duty Cycle [Line (b) x Line(c)]	Yes: a. 3 – 200 b. 1 c. 1-60 sec d. Time on / off	Yes: a. 3 – 200 b. 1 c. 1-60 sec d. Time on / off	Yes: a. 3 – 200 b. 1 c. 1-60 sec d. Time on / off	Identical
On time (sec.)	1 – 60 [sec]	1 – 60 [sec]	1 – 60 [sec]	Identical
Off time (sec.)	1 – 60 [sec]	1 – 60 [sec]	1 – 60 [sec]	Identical

Apollo Quattro
510(k) Summary_K253542

Name	Subject Device	Primary Predicate Device	Secondary Predicate Device	Comparison
Device Name	Apollo Quattro(APQ-10M)	EVE Synergy(EVE-20M)	EVOLVE System with the T3 Applicator	
Manufacturer	WEERO Co.,Ltd.	WEERO Co.,Ltd.	InMode Ltd.	
510(k) No.	-	K241433	K210877	
Treatment Time (min) - the time limit that will put the system in STOP state Level	Up to 60 min	Up to 60 min	Up to 60 min	Identical
TENS Output				
Output Specifications: Waveform	Symmetrical Biphasic Waveform, Pulsed Monophasic	Symmetrical Biphasic Waveform, Pulsed Monophasic	Symmetrical Biphasic Waveform	Identical
Pulse Shape	Rectangular	Rectangular	Rectangular	Identical
Maximum Output Voltage($\pm 20\%$)	20 V @500 Ω 28 V @2k Ω 28 V @10k Ω	10 V @500 Ω 10 V @2k Ω 10 V @10k Ω	19 V @500 Ω 19 V @2k Ω 19 V @10k Ω	Not identical. The maximum output voltage and current of the subject device are similar to those of the secondary predicate device. In addition, since the maximum power density of both devices is identical, the total energy delivered to the tissue remains identical in its effect on tissue response. Therefore, these differences do not raise new questions about safety and effectiveness.
Maximum Output Current($\pm 20\%$)	40 mA @500 Ω 14 mA @2k Ω 2.8 mA @10k Ω	20 mA @500 Ω 5.0 mA @2k Ω 1.0 mA @10k Ω	38 mA @500 Ω 9.5 mA @2k Ω 1.9 mA @10k Ω	
Pulse Width(μ sec.) – The output active positive pulse width	100 [μ s]	100 to 150 [μ s]	20 to 400 [μ s]	Not identical. Since the pulse width and frequency of the subject device are within the range of the predicate devices, it does not raise new questions about safety and effectiveness.
Frequency(Hz)	50 Hz	3 to 200 [Hz]	3 to 200 [Hz]	
Net Charge @ 500 Ohms [μ C/pulse]	0 [μ C] @500 Ω	0 [μ C] @500 Ω	0 [μ C] @ 500 Ω	Identical

Apollo Quattro
510(k) Summary_K253542

Name	Subject Device	Primary Predicate Device	Secondary Predicate Device	Comparison
Device Name	Apollo Quattro(APQ-10M)	EVE Synergy(EVE-20M)	EVOLVE System with the T3 Applicator	
Manufacturer	WEERO Co.,Ltd.	WEERO Co.,Ltd.	InMode Ltd.	
510(k) No.	-	K241433	K210877	
Maximum Phase Charge [μC]	4.0 [μC] @500 Ω	3.0 [μC] @500 Ω	15.2 [μC] @ 500 Ω	Not identical. Maximum Phase Charge is related to the maximum output current and pulse width, and because the predicate device has various pulse widths, the range of phase charge depends on the pulse width range. For example, for the secondary predicate device, the phase charge ranges from 0.76 μC to 15.2 μC . Because the phase charge of the subject device is within the range of the predicate device, it does not raise new questions about safety and effectiveness.
Maximum Current Density [mA/cm^2]	0.47 [mA/cm^2] Surface = 10.37 cm^2	0.83 [mA/cm^2] Surface = 6 cm^2	0.47 [mA/cm^2] Surface = 6.46 cm^2	Identical
Maximum Power Density [mW/cm^2]	8.9 [mW/cm^2] @ 500 Ω	8.3 [mW/cm^2] @ 500 Ω	8.9 [mW/cm^2] @ 500 Ω	Identical
Burst Mode (i.e., pulse trains) a. Pulses per burst b. Bursts per second c. Burst duration (seconds) d. Duty Cycle[Line (b) x Line(c)]	Yes: a. 3 – 200 b. 1 c. 1-60 sec d. Time on / off	Yes: a. 3 – 200 b. 1 c. 1-60 sec d. Time on / off	Yes: a. 3 – 200 b. 1 c. 1-60 sec d. Time on / off	Identical
On time (sec.)	1 – 60 [sec]	1 – 60 [sec]	1 – 60 [sec]	Identical
Off time (sec.)	1 – 60 [sec]	1 – 60 [sec]	1 – 60 [sec]	Identical
Treatment Time (min) - the time limit that will put the system in STOP state Level	Up to 60 min	Up to 60 min	Up to 60 min	Identical

2) Substantial Equivalence Discussion

There are differences on a few things. However, these differences do not affect the significant equivalence of the device and its predicates.

The subject device and predicate devices utilize the same technology, for the same indication for use, and with almost identical design specifications. The device emits EMS or TENS electrical signals with similar power and current densities, pulse characteristics, and bear almost identical system components to its predicate devices such as; user interface, and hardware components. All of the subject device performance specifications are equal or similar to those of its predicate devices. The differences in technical specifications should not alter the device safety and effectiveness.

Furthermore, the subject device had underwent the required performance testing and validation testing and demonstrates its conformance with device design requirements and with applicable standards.

The safety features and compliance with safety standards of the subject device are similar to the safety features and compliance with safety standards of the predicate devices. All user-contacting materials were tested for biocompatibility and found to comply with the ISO 10993-1 standard.

The electrodes and LED display part used in subject device are the same raw material as the electrodes and LED display part used in Apollo Duet, which cleared 510(k) "K212253" from WEERO Co.,Ltd..

The electrodes and LED display part used in Apollo Duet passed the biocompatibility test in compliance with ISO 10993-1 and are the same as the raw materials used in the subject device.

The electrode(Stainless Steel 304) and LED display part(Polycarbonate) of the Apollo Quattro(APQ-10M) in its final finished form are identical to the electrode(Stainless Steel 304) and LED display part(Polycarbonate) of the Apollo Duet (K212253) in formulation, processing, sterilization, and geometry, and no other chemicals have been added (e.g., plasticizers, fillers, additives, cleaning agents, mold release agents).

Furthermore, the design and development phases of the subject device were validated throughout a set of performance tests, including software validation testing, electrical and mechanical safety testing according to IEC 60601-1 standard, electromagnetic compatibility testing according to IEC 60601-1-2 standard, and safety and essential performance of nerve and muscle stimulators testing according to IEC 60601-2-10 standard. These performance tests demonstrated that the device specifications meet the system requirements and do not raise new safety or effectiveness concerns.

3) Conclusion

"EVE Synergy(EVE-20M)" and "EVOLVE System with the T3 Applicator" were chosen as predicate devices for the subject device in consideration of the intended use, indications, performance and principles of operation. Differences between the subject and the predicate devices were found and listed within the above comparison table and discussion. Considerable amount of testing, including electrical safety, electromagnetic compatibility, performance, software verification and validation and usability testing were performed to support the claims of appropriately chosen predicate device. The test results show that the specifications and performance of Apollo Quattro(APQ-10M) are as safe and effective as legally marketed predicate devices.

Therefore, it is concluded that the Apollo Quattro(APQ-10M) is substantially equivalent to the legally marketed predicate devices.

7. Non-Clinical (Bench) Performance Data:

As part of demonstrating safety and effectiveness of the Apollo Quattro and in showing substantial equivalence to the predicate device that are subject to this 510(k) submission, we completed a number of non-clinical performance tests against applicable standards.

- Basic safety and essential performance of the Apollo Quattro was tested and evaluated according to the IEC 60601-1:2005/A2:2020.
- Effect to the device by electromagnetic disturbances was tested and evaluated according to the FDA-recognized consensus standard IEC 60601-1-2:2014/A1:2020.
- Particular requirements for the basic safety and essential performance of nerve and muscle stimulators was tested and evaluated according to the IEC 60601-2-10:2012/A2:2023.
- Risk management was recorded by referring to ISO 14971:2019.
- For biocompatibility, all user-contacting materials (i.e., Stainless Steel 304 and Polycarbonate) are the same as those previously cleared under K212253.
- Software was tested and evaluated according to IEC 62304:2015
- Content of Premarket Submissions for Device Software Functions

The Apollo Quattro passed all the testing in accordance with internal requirements, national standards, and international standards shown above, to support substantial equivalence of the subject device.

Also, to demonstrate that the Apollo Quattro meets all design specifications and performance requirements, and to measure the accuracy of the output parameters of Apollo Quattro and to compare the output parameters with predicate devices, nonclinical bench testing was performed in accordance with the internal process in compliance with the recommendations of the FDA Guidance Document for Powered Muscle Stimulator 510(k)s.

The testing results support that the requirements for performance and electrical safety were met for the acceptance of the device. The Apollo Quattro passed all testing and supports the claims of substantial equivalence to the predicate device.

8. Sterilization/Disinfection/Cleaning/Shelf Life

The Apollo Quattro is intended for multiple use and therefore must be cleaned according to the instructions provided in the device Instructions for Use. There are no sterilized parts or accessories involved with this device.

9. Biocompatibility

Part	Material	Patient Contact	Duration of Contact by ISO 10993-1	Bio-compatibility
Electrodes of handpiece	SUS 304	Intact Skin	Limited (< 24 hours)	Yes
LED Display part	PC(SR3108FM)			

10. Conclusion

Based on the comparison with the predicate devices and on the non-clinical performance testing results demonstrating that the Apollo Quattro is as safe and effective as the predicate devices, it can be concluded that the Apollo Quattro is substantially equivalent to the legally marketed predicate devices.