Ultra Cavitation RF Weight Loss Platform - Official Clinical Overview & Technical Datasheet

EXECUTIVE SUMMARY

Introducing the Ultra Cavitation RF Weight Loss Platform, a premier, non-invasive aesthetic system engineered for the contemporary medical spa and dermatology clinic. This device synergistically combines Ultrasonic Cavitation and Multi-polar Radiofrequency (RF) technologies to deliver a comprehensive solution for body contouring, cellulite reduction, and skin tightening. By inducing adipocyte apoptosis through mechanical cavitation and subsequent deep tissue heating, the platform offers a safe, effective, and comfortable alternative to surgical liposuction, positioning itself as a high-ROI asset for any practice aiming to expand its body sculpting portfolio.

CLINICAL ARCHITECTURE & DESIGN

The Ultra Cavitation RF Platform is built upon a foundation of dual-energy synergistic architecture. The system integrates a 40kHz ultrasonic transducer for cavitation and a 1MHz (or 2MHz) multi-polar RF generator for deep dermal heating. The chassis houses a proprietary Smart Energy Delivery System (SEDS) that constantly monitors tissue impedance and contact pressure, automatically adjusting the output to ensure consistent energy delivery. The device features an intuitive, high-contrast 10.4-inch touchscreen interface, providing practitioners with real-time feedback and control over treatment parameters.

KEY INDICATIONS & CAPABILITIES

The platform is indicated for a wide range of non-invasive aesthetic applications, primarily targeting localized fat deposits resistant to diet and exercise. Key capabilities include:

- Adipose Tissue Reduction: Ultrasonic cavitation disrupts adipocyte cell membranes, releasing triglycerides that are metabolized and eliminated via the lymphatic system.
- Skin Tightening & Lifting: Multi-polar RF energy heats the dermal layers (40-45 ° C), stimulating immediate collagen contraction and long-term

neocollagenesis.

- Cellulite Improvement: The combined action of vacuum suction and RF energy improves local microcirculation, lymphatic drainage, and smoothens the skin's surface texture.

- Body Contouring: Precise applicator design allows for targeted treatment on areas such as the abdomen, flanks, thighs, arms, and submental region.

COMPLIANCE & STANDARDS

This device adheres to the highest standards of medical device safety and quality. The Ultra Cavitation RF Platform is manufactured in an ISO 13485 certified facility and complies with all applicable directives, including the Medical Device Regulation (MDR) in Europe and relevant FDA regulatory pathways in the United States. The system has undergone rigorous electrical safety testing (IEC 60601-1) and electromagnetic compatibility (EMC) evaluations (IEC 60601-1-2) to ensure reliable and safe operation in a clinical environment.

TECHNICAL SPECIFICATIONS

Parameter	**Specification**
Technology	40kHz Ultrasonic Cavitation +

	Multi-polar RF
RF Frequency	1MHz / 2MHz (Selectable)
RF Power Output	Up to 100W (Adjustable)
Ultrasonic Power	30W - 60W
Cooling System	Advanced Sapphire Contact Cooling + Active Air
User Interface	10.4-inch HD Color Touchscreen
Power Supply	AC 100-240V, 50/60Hz
Dimensions	450mm x 380mm x 220mm
Weight	~15 kg (Main Unit)
Safety Class	Class I, Type BF Medical Device

CLINICAL PROTOCOLS

For optimal clinical outcomes, a structured treatment protocol is recommended. A typical course of action involves 6-8 sessions, scheduled at 3-7 day intervals, depending on the patient's individual response and treatment area.

- Preparation: The patient should be well-hydrated and avoid heavy meals before the session. The treatment area is cleansed, and a conductive gel or coupling medium is applied.

- Cavitation Phase: The practitioner uses the ultrasonic handpiece in a slow, continuous, overlapping motion (approx. 5-10 cm/s). The SEDS will indicate optimal contact, and the session lasts 20-30 minutes per area.

- RF Phase: Following cavitation, the RF handpiece is used to deliver thermal energy to the treated area. The practitioner performs a grid-pattern application to ensure uniform heating.

- Post-Treatment: The coupling gel is removed, and the area is lightly massaged. Patients are advised to maintain adequate hydration and engage in light physical activity to support lymphatic drainage.

- Parameter Selection: Treatment parameters are customizable based on the specific patient profile and target area. The platform includes pre-set protocols for various body areas and skin types, which can be further fine-tuned by the operator using the advanced UI.