UltraPulse | AcuPulse
for whatever your day holds

Beyond Fractional Skin Resurfacing
Precisely Powerful Performance

Whether it’s cosmetic procedures or advanced surgical solutions, Lumenis offers innovative tools and resources to help you organize, plan and create a customized patient solution, step by step.

With hundreds of treatment options, unsurpassed control and precision, and patient friendly pulse characteristics, the UltraPulse and AcuPulse systems offer a full range of options to treat up to 34 FDA cleared dermatology and plastic surgery indications.

Now that's performance you can count on.
Full of Possibilities
For more than 40 years, our dedication to research and development has made Lumenis the unrivaled global leader in Dermatologic, Ophthalmic, and Surgical lasers.

For Whatever Your Day Holds
We have helped tens of thousands of physicians and patients turn everyday challenges into opportunities.

“UltraPulse gives me the extreme precision I desire from a fractional CO₂ laser. It gives me the possibility to tailor parameters to individual patient's needs and the confidence to treat in a safe and efficient way.”

- Dr. Christine Dierickx
The science behind our lasers directly relates to the powerful results you can achieve for every unique patient. Only Lumenis’ fractional technology delivers the power to instantly and precisely ablate tissue at optimum levels for impressive results, more quickly, and with less pain than other CO2 systems.

High Peak Power. Short Pulse Duration

Sustainable high pulse power with extremely short-pulse durations ablates tissue instantly to reach effective dermal depths with sufficient coagulation to promote collagen remodeling.

Fractional CO2 Laser Pulse Widths Comparison (1.0 ms)
Depth of Penetration

A variety of handpieces provide superficial and deeper depths of penetration. Tissue ablation occurs at the precise level which effectively removes surface discoloration, improves skin texture, induces immediate tissue coagulation and stimulates long-term collagen remodeling for improvement of deep wrinkles and scars\(^1\text{-}^{11}\).

Zone of Collagen Remodeling

Customizable Treatment

With the highest power to tissue of any CO\(_2\) laser, the UltraPulse and AcuPulse deliver the shortest pulse width for any given energy, offering the best control of residual thermal damage and the lowest probability of complications\(^1\text{-}^{11}\).

Customized Coverage

5–100% ablation

Only the UltraPulse gives the flexibility of 5–100% coverage in a single pass.

Customized Depth

50–2000 µm

Target dyschromia, fine lines, deep wrinkles and scars by choosing the depth of ablation\(^1\text{-}^{11}\).

With six times the power of most CO₂ lasers, the UltraPulse system is the laser for advanced applications. Delivering speed, versatility, performance and precision, UltraPulse easily supports a full spectrum of aesthetic and surgical capabilities.


- Single treatment, single pass, results in fast recovery
- 240 watts of power to tissue
- 225 mJ of energy output
- Advanced patented technologies
- Six times more powerful than other CO₂ lasers
- Twice the treatment speed of most CO₂ lasers
- Offers the most delivery options¹
- Deepest ablative capability with hemostasis¹
- Customizable with unmatched versatility in range of treatments
- Low cost consumables
- 34 FDA-cleared dermatology and plastic surgery indications
Customizable. Versatile. Reliable.

<table>
<thead>
<tr>
<th>ActiveFX™</th>
<th>DeepFX™</th>
<th>TotalFX™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treat fine lines, texture and dyschromia</td>
<td>Treat deep wrinkles and scars</td>
<td>COMBINE treatments for total outcomes</td>
</tr>
</tbody>
</table>

*"Fractional" refers to the delivery of laser energy in a fractional manner and over fractions of areas, instead of entire area, being a type of delivery methodology that is well characterized in the literature.

ActiveFX—Superficial fractional ablation* for fine lines, uneven texture, dyschromia and actinic keratosis. Collimated, non-sequential scanning delivers high effect, low-downtime, single pass laser skin resurfacing. 1.3 mm spot size.

DeepFX—Deep fractional ablation* for treatment of profound wrinkles. 0.12 mm spot size.

TotalFX—Combined superficial and deep fractional ablation* provides scar treatment, improved skin texture and resolution of fine lines and wrinkles. 1.3 mm and 0.12 mm spot size.

Optimal reproductibility with a variety of scan shapes, density and sizes:
- doughnut
- square
- hexagon
- rectangle
- line
- triangle
- parallelogram

Optional Handpiece Upgrades

**TrueSpot** collimated handpiece delivers consistent fluence over a range of working distances. Ideal for skin resurfacing, acne scars, actinic keratosis, basal cell carcinoma, burn debridement, scar treatment, rhinophyma and removal of nevus. Up to 2.0 mm spot size.

**Focused Incisional** handpiece for precise incision and large area ablation, skin resurfacing and precise surgical work including blepharoplasty and wart removal. 0.2 mm and 1.0 mm.

**UltraFlex** Wave Guide for incisional, ablative, and coagulative laser procedures.
Individual Patient Plan

Personalize a treatment plan to meet each patient's needs with the most versatile range of treatment effects available from any CO₂ laser.\textsuperscript{1,3,6}
Clinical Results

ActiveFX and DeepFX

TotalFX Scar Treatment
Simply Genius

AcuPulse with MultiMode™ technology is a lightweight, yet powerful boost to your practice. AcuPulse with MultiMode offers both Superficial and Deep treatment modalities using a single handpiece.

With its sleek, state-of-the-art construction, AcuPulse with MultiMode technology, packs a multiplicity of uses into one portable, profitable package.

Never before has a laser done so much, so well, for so little.


- 200 watts of power to tissue
- SuperPulse technology reaches deeper than CW lasers
- One handpiece for both superficial and deep fractional treatments
- Patented scanning technologies
- Precision ablation minimizes thermal damage
- High power for fast treatments
- Treatment of light to moderate sun damage and wrinkles
- Easy touchscreen navigation
- Low cost consumables
- Patient-personalized settings
- Ability to upgrade from aesthetic to full surgical functions
- 34 FDA-cleared dermatology and plastic surgery indications

Optimal reproducibility with a variety of scan shapes, density and sizes:
For All You Do

AcuPulse offers unique MultiMode technology that allows you to treat both superficial and deep targets with one handpiece, giving you the versatility to customize treatments to meet the needs of individual patients.

**MultiMode Superficial** Large Spot Fractional for moderate sun damage, fine lines, dyschromia and actinic keratosis. 1.3 mm spot size.

**MultiMode Deep** Small Spot Fractional to treat acne scars, deep wrinkles and rhytides. 0.12 mm spot size.

**MultiMode Combo** for combined superficial and deep treatment of acne scars, facial lines and wrinkles, and sun damage. 0.12 mm and 1.3 mm spot sizes.

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**AcuPulse Results**

BEFORE | AFTER 1 TREATMENT
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![Before and after images](image1.jpg)

![Before and after images](image2.jpg)

![Before and after images](image3.jpg)

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Before AFTer 1 TreATMeNT

With MultiMode™ Technology
<table>
<thead>
<tr>
<th>PLATFORM</th>
<th>UltraPulse Encore</th>
<th>AcuPulse 40 AES-F, AES-R, AES A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength</td>
<td>10,600 nm</td>
<td>10,600 nm</td>
</tr>
<tr>
<td>Laser Type</td>
<td>UltraPulse or CW</td>
<td>SuperPulse and CW</td>
</tr>
<tr>
<td>Power to tissue</td>
<td>240 Watts</td>
<td>200 W</td>
</tr>
<tr>
<td>Spot Size</td>
<td>Minimum 0.12 mm</td>
<td>Minimum 0.12 mm. Maximum 1.3 mm</td>
</tr>
<tr>
<td></td>
<td>Maximum 2.0 mm (TrueSpot)</td>
<td>Full resurfacing (non-fractional), 100% coverage in Silk/FeatherTouch modes</td>
</tr>
<tr>
<td>Percent coverage per pass</td>
<td>5-100%</td>
<td>5-25%</td>
</tr>
<tr>
<td>Depth of Penetration</td>
<td>Up to 2.0 mm per pulse</td>
<td>Up to 1.0 mm per pulse</td>
</tr>
<tr>
<td>FDA-cleared indications</td>
<td>&gt;100</td>
<td>&gt;100</td>
</tr>
<tr>
<td>Full Resurfacing Capabilities</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Fractional Capabilities</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Incisional Capabilities</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Excisional Capabilities</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Aiming Beam</td>
<td>5 mW red diode laser, 635 nm, adjustable intensity, blink on/off</td>
<td>5 mW red diode laser, 635 nm, adjustable intensity</td>
</tr>
<tr>
<td>Beam Delivery</td>
<td>Articulated arm with up to 240 cm reach, 360° rotation</td>
<td>Lightweight, 7-joint, spring-balanced arm w/120 cm (47.2”) reach, 360° rotation</td>
</tr>
<tr>
<td>Memory Setting</td>
<td>Three</td>
<td>Min. 100</td>
</tr>
<tr>
<td>Cooling</td>
<td>Self-contained, closed cycle</td>
<td>Self-contained, closed cycle</td>
</tr>
<tr>
<td>Warranty and Coverage</td>
<td>1 Year standard</td>
<td>1 Year standard</td>
</tr>
<tr>
<td>Recommended Passes/Treatment</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Platform Specifications**

- **Electrical**: 100 – 240 VAC, 20 A max., 50/60 Hz
- **Weight**: 128 kg (280 lbs)
- **Dimensions** (WxDxH): 34 cm X 51 cm X 144 cm to 195 cm (13.6” X 20” X 57” to 77”)
- **Power to tissue**: 200 W
- **Wavelength**: 10,600 nm

**Optional Handpieces**

- Focused incisional handpiece (up to 2mm spot size)
- Up to 2mm spot size)
- UltraFlex waveguide
- Feathertouch, Silktouch, and Incisional
- TrueSpot collimated handpiece
- Collimated handpiece (up to 2mm spot size)
- Articulated arm with up to 240 cm reach, 360° rotation

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**References**