## Apple Studio Display (Ultra) – Technical Specifications

### Key Features:
- **Audio:** HDMI display video output
- **Apple Chip:** M1 with 8 cores including 4 Performance cores and 4 Efficiency cores
- **Performance:** 4.5x faster CPU performance, 14x faster GPU performance, 11x faster machine learning performance
- **Chipset:** Two M1 chips, each 32GB unified memory
- **Memory:** 48GB unified memory (M1 Max)
- **Hard Drive:** 1TB, 2TB, 4TB, or 8TB SSD
- **Video Output:** Supports up to four Pro Display XDRs (6K resolution at 60Hz and over a billion colors) over USB

### Dimensions:
- **Width:** 24.5 inches
- **Depth:** 7.7 inches
- **Height:** 19.7 inches
- **Weight:** 36 pounds (16.4 kg)

### Environmental Information:
- **Energy Efficiency:** ENERGY STAR certified
- **Recycled Materials:** 100% recycled rare earth elements in all magnets, representing 98% of the rare earth elements in the device
- **Recycling:** Zero waste packaging
- **Power:** Mac operating at 100% efficiency

### Power Consumption:
- **Rating:** 95 W (Max)
- **Input:** 100–240 VAC, 50–60 Hz

### Environmental Impact:
- **Emission:** Designed to be the quietest Mac ever, with less than 109 dBA
- **Energy:** operated for 90% or more of the time

### Acoustics:
- **Weighted Sound Pressure Level:**
  - Idle: 2.5 dB
  - Front: 2.5 dB

### Operating Environment:
- **Temperature:** 50° F to 95° F (10° C to 35° C)
- **Humidity:** 10% to 90% noncondensing
- **Altitude:** 0 to 14,400 feet (0 to 4,400 meters)

### Additional Features:
- **iMovie, GarageBand, Pages, Numbers, and Keynote:** Available on the Mac App Store
- **Warranty:** 3-year warranty on parts and labor
- **Ports:** HDMI, DisplayPort, USB 3.1 Gen 2 (up to 10Gb/s), Thunderbolt 4 (40Gb/s)
- **Connectors:** 4 Thunderbolt 4 ports, 1 HDMI port, 1 DisplayPort, 2 USB-A ports

### Technical Specifications:

| Sound Output | Maximum Sound Pressure Level (dB)
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<tbody>
<tr>
<td>M1 Max</td>
<td>3.7 (K-1)</td>
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<tr>
<td>M1 Ultra</td>
<td>3.7 (K-1)</td>
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<tr>
<td>M1</td>
<td>4.2 (K-2)</td>
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<tr>
<td>M1 Pro</td>
<td>4.9 (L)</td>
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<tr>
<td>M1 Mini</td>
<td>6.4 (L)</td>
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All values tested at 1m from the display (for one display with up to 4K resolution at 60Hz).