VDC Display Systems
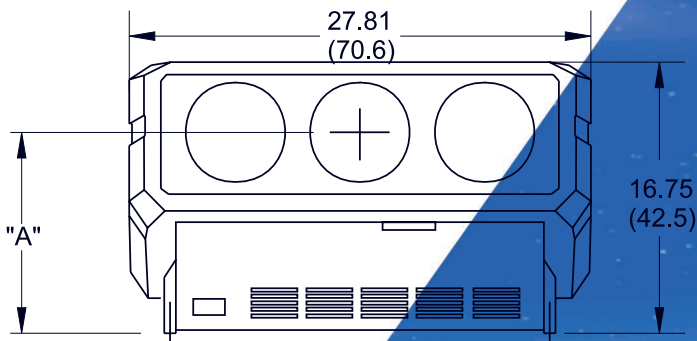
MARQUEE® 8500/9500 Ultra

Features include:

> Greater than 2048 x 1536 pixel resolution
> Proven reliable performance
> Highest MTBF in the industry
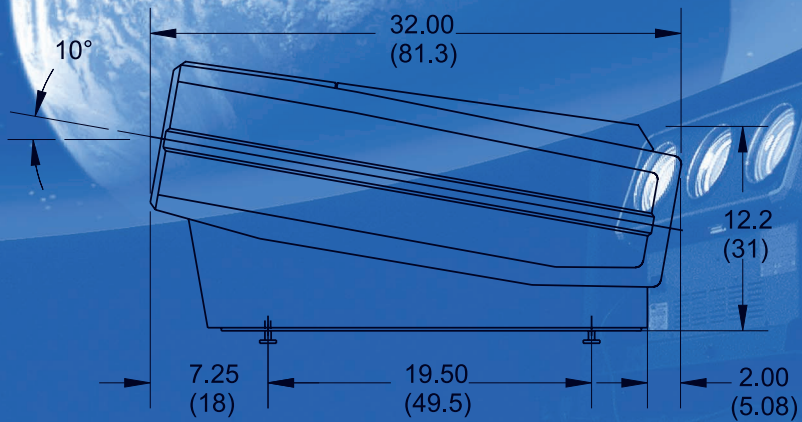> Superior image quality

Applications include:

> Broad range of simulation, VR,3D and general purpose applications

FRONT VIEW

27.81
(70.6)

16.75
(42.5)

"A"

SIDE VIEW

10°

32.00
(81.3)

12.2
(31)

7.25
(18)

19.50
(49.5)

2.00
(5.08)

Dimensions are in inches (centimeters)

MARQUEE® 8500/9500 Ultra Specifications

Optics
> High definition hybrid lens
> Optical resolution: up to 12 line pairs/mm
> Wide variety of lens options
> Marquee 8500 Ultra 8" electromagnetic focus air-coupled CRTs
> Marquee 8500LC Ultra 8" electromagnetic focus liquid-coupled CRTs
> Marquee 9500LC Ultra 9" electromagnetic focus liquid-coupled CRTs
> Variable Scheimpflug focal plane adjustment for top, bottom, and side to side focus

Resolution
> 2048 x 1536 pixels
> Adjustable 6-pole magnets for improved spot shape and reduced flare

Brightness
> Marquee 8500 Ultra 8" 225 ANSI lumens
> Marquee 8500LC Ultra 8" 225 ANSI lumens
> Marquee 9500LC Ultra 9" 260 ANSI lumens

Display
> Electronic geometry circuits separately correct top, bottom and sides for flat or curved screens up to 25 feet diagonal
> Keystone circuitry to correct pictures for angles up to ±15° vertically from screen axis
> Color temperature adjustment for precise setup
> S and C vertical and horizontal linearity controls
> Adjustable four sided blanking
> Independent 9-zone contrast modulation reference for optimal color and intensity uniformity
> Master white intensity modulation aiding uniform brightness between multiple screens
> Independent R, G and B sub-brite controls via remote control or RS-232.

Input Signals
> Video Input Level: 0.5 to 1.0 volts p-p, 75Ω ±1% terminated
> Sync Input Level: 0.5 to 5.0 volts p-p, 75Ω terminated
> Automatically switches to separate sync, composite sync, or sync on green
> Separate and composite sync are automatically accepted in either polarity
> Audio Input Level: 1.0 volts nominal

Output Signals
> Stereo audio outputs with volume control

Gamma Correction (optional)
> Gamma correction circuitry provided for enhanced low-level detail for night training simulation and gray-scale tracking

Frequency Response
> 150 MHz bandwidth (-3 dB)
> Accommodates < 2.5 nanosecond pixels and digital clock rates over 250 MHz
> DC Restoration
> Keyed clamp, better than 1% accuracy

Geometry
> Individual Red, Green and Blue keystone and pincushion geometric functions minimizing "banding" effects at extreme geometric alignments
> Rectilinear Accuracy: 1.0% of picture height maximum
> Horizontal Linearity: 2.0% maximum (keypad adjustable)
> Vertical Linearity: 1.0% maximum (keypad adjustable)

Deflection Circuits
> Smartlock™ circuitry for quick lock-in and ultra steady images

Vertical Deflection
> Frequency Range: 38 Hz to 180 Hz autolock
> Size automatically regulated over frequency range and adjustable to ±15% of nominal
> Retrace Time: less than 300 microseconds

Horizontal Deflection
> 15 kHz to 152 kHz autolock
> Size automatically regulated over frequency range and adjustable to ±15% of nominal

kHz	Retrace Time µs	Blanking Time µs
15–30	5.5 (short)	6.5 µs (short)
30–60	3.3 (short)	3.6 µs (short)
60–130	1.6 (short)	1.8 µs (short)
30–45	5.0 (long)	5.6 µs (long)
60–100	2.5 (long)	3.2 µs (long)

High Voltage
> 34.9 kV regulated to better than 0.01%

Power Requirements
> 90 VAC to 264 VAC universal input
> Line Frequency: 50 to 60 Hz nominal
> Power: 650 watts maximum
> Power Factor Corrected (CE Compliant)

Inputs
> Built-in RGBHV interface, with stereo audio inputs. Optional inputs include a RGB Input Module, a RGB Loop-Thru Module, a Multi-Standard Video Decoder and a HDTV Module
> Built-in RS-232 for computer control, with loop-thru for connection of multiple projectors

Optional Source Expansion
> The Marquee Signal Switcher allows use of up to nine additional input modules. Up to nine switchers can be connected.
> Maximum Number of Inputs: 78

Control Features
> Multi-language software (user selectable)
> Menu driven interface with on-screen help
> Built-in set up tutorials
> Auto power up after power interruption
> Internal frequency generator with 5 built-in test patterns
> Programmable events and real time clock
> Optional IR AMP Distribution Box, for precise control of multiple projectors.

Servicing
> Removable, sliding front or rear, one-piece top cover
> Modular design provides ease of servicing
> Most service adjustments are made using the keypad

Environment
MAXIMUM OPERATING RANGE
> Temperature: 0 to 35C
> Humidity: 0 to 90% non-condensing
> Altitude: 0 to 3000m (0-10,000 ft.)
STORAGE
> Temperature: -30C to 65C
HEAT DISSIPATION
> 2450 BTU/Hr (approximate)

Mounting
> Can be ceiling mounted or placed on a cart for portable applications

Weight
> Marquee 8500 Ultra 144 lbs (65 kg) / 194 lbs (88 kg) shipping weight
> Marquee 8500LC Ultra 176 lbs (80 kg) / 229 lbs (104 kg) shipping weight
> Marquee 9500LC Ultra 176 lbs (80 kg) / 229 lbs (104 kg) shipping weight

Accessories Included
> 1 IR remote multi-use, backlit, full function keypad
> 1 Internal multi-use, backlit, full function keypad
> Tool Kit
> User's manual
> Line cord

Regulatory Approvals
> FCC Class A, DHHS and HWC requirements, EN55022 Class B
> CSA/UL/EN 60 950
> EU Directives 73/23/EEC, 89/336/EEC (CE marked)

Warranty
> Three years parts (1 year CRTs) and One year labor (see user's manual)
> Extended warranties available

Additional Options & Accessories Available. Contact your reseller or VDC Display Systems for more information about the available optional products and accessories

Due to constant research, product specs are subject to change without notice

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MADE IN THE U.S.A.