DB-x20 Digital Billboard

Out-of-Home Media LED screen

Key Benefits

- 7,200 nits brightness[1]
- 4,000:1 contrast ratio
- 16-bit color processing
- System Color Signature
- 100,000-hour lifetime
- Field-replaceable shaders
- Redundant power system
- Light pollution reduction
- PFC, RoHS, and EMC
- Worldwide deployment

Purpose-built for Out-of-Home Media, Barco's all-new DB-x20 shatters industry expectations in all essential categories—a comprehensive LED solution designed to out-pace the competition for years to come.

- World-class image processing and LED innovation
- Total system reliability and service worldwide
- Environmentally responsible and community friendly
- Low power consumption and low cost of ownership

An industry leader in high-tech electronics for 75 years, Barco maintains its commitment to the LED market by investing 10% of revenue annually back into R&D, delivering advanced features and robust solutions—a reliable partner in all your OHM needs.

BARCO

Visibly yours

World-class image processing and LED innovation

Barco's history of world-class image processing, combined with revolutionary integrated visualization features, set DB-x20 years ahead of the competition. No other outdoor LED screen comes close

Bristol

System Color Signature (x, y, Y)

Proprietary image processing produces sharp, brilliant images unmatched by industry competition.

Component selection and layout minimizes heat distribution and operating temperature.

Built-in intelligence monitors LED color signature, temperature thresholds, and overall runtime.

TCR
True Color Reproduction


Paris

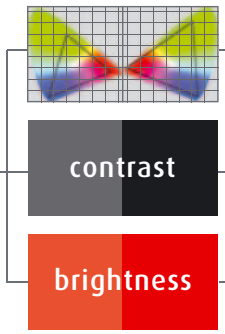
Integrated color, contrast and brightness

16-bit processing generates 281 trillion colors for true color reproduction, year after year.

4,000:1 contrast ratio tempers screen brightness into sharp, focused images whether up close or far away.

7,200 nits guarantees the screen stays brighter longer, providing 100,000 hours of continuous use.


Typical

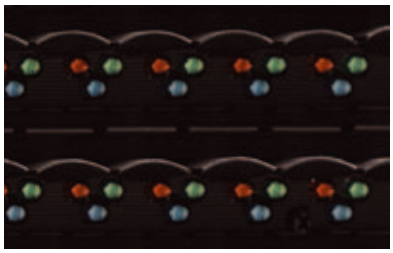


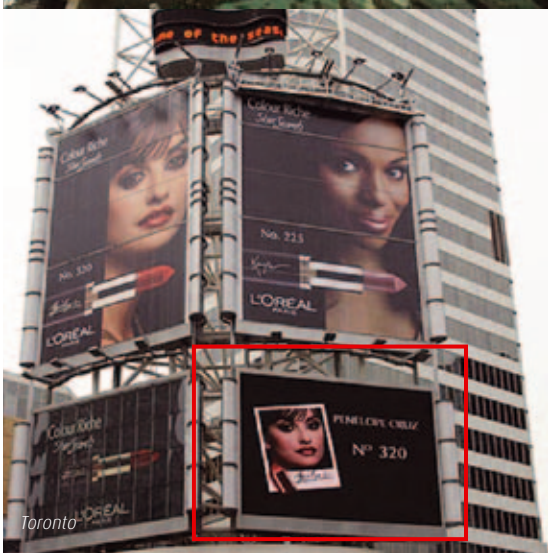

DB-x20

Singapore

Smart shaders

Modular shaders protect LEDs from harm and are field-replaceable when damaged or adjusting black levels. Light traps deflect external light, minimizing the "washout effect." Unique geometry drains rainwater, preventing visual obstructions.


DB-x20 smart shader design



Toronto

Environmentally responsible and community friendly

When it comes to the environment, Barco meets or exceeds both local and international regulations by developing energy-efficient products, creating strong community support and sustainable markets.

Typical digital billboard light emissions

*DBx-20's **8% tilted** emissions*

Light pollution reduction

Unlike typical digital billboards, DB-x20 employs two systems of light pollution reduction.

Ambient environment controller
Barco's next-generation ambient environment controller (AEC-4000) continuously detects light conditions and automatically adjusts screen brightness.

Tilted configuration
An 8% tilt in LED configuration reduces light pollution by 26% and directs 37% more brightness toward targeted viewing areas. This efficient use of light enhances vertical viewing angles and preserves the darkness of the night sky..

Certified green

DB-x20 meets FCC and ETL certifications as well as the stringent international requirements that shape the future of the industry. Environmental protection factors gain support from local communities, lawmakers and agencies, preserving the future of digital OHM.

Power Factor Correction
Found only in high-end LED screens, PFC reduces mains harmonics and mitigates electrical impact on power networks, improving stability while conserving energy.

Restriction of Hazardous Substances
DB-x20 is the world's first digital billboard to meet all RoHS standards, meaning all product components contain no lead, mercury, cadmium, Cr6, PBB, or PBDE.

Electromagnetic Compatibility
Operates in a self-contained electromagnetic field, unaffected by surrounding electrical devices, and causing no interference to other devices (cell phones, medical devices, vehicle safety features, etc.).

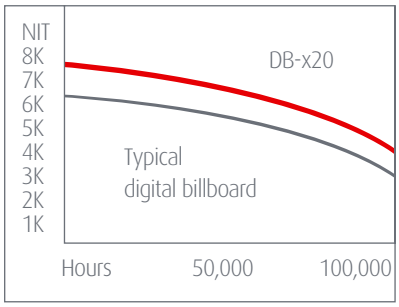
Affiliations

To enhance our products and offer dedicated OHM solutions, Barco partners with industry leaders and is an active participant with key outdoor associations worldwide.

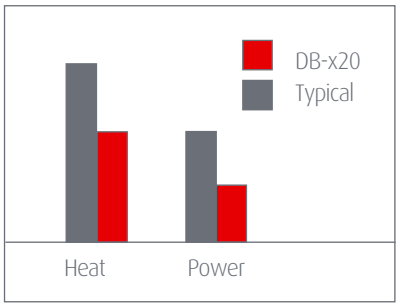
Low power consumption and low cost of ownership

Low power starts with our stringent selection of efficient components, which last longer, produce less heat, and require no HVAC, resulting in considerably less power consumption that typical digital billboards—reducing total cost of ownership.

Efficient components

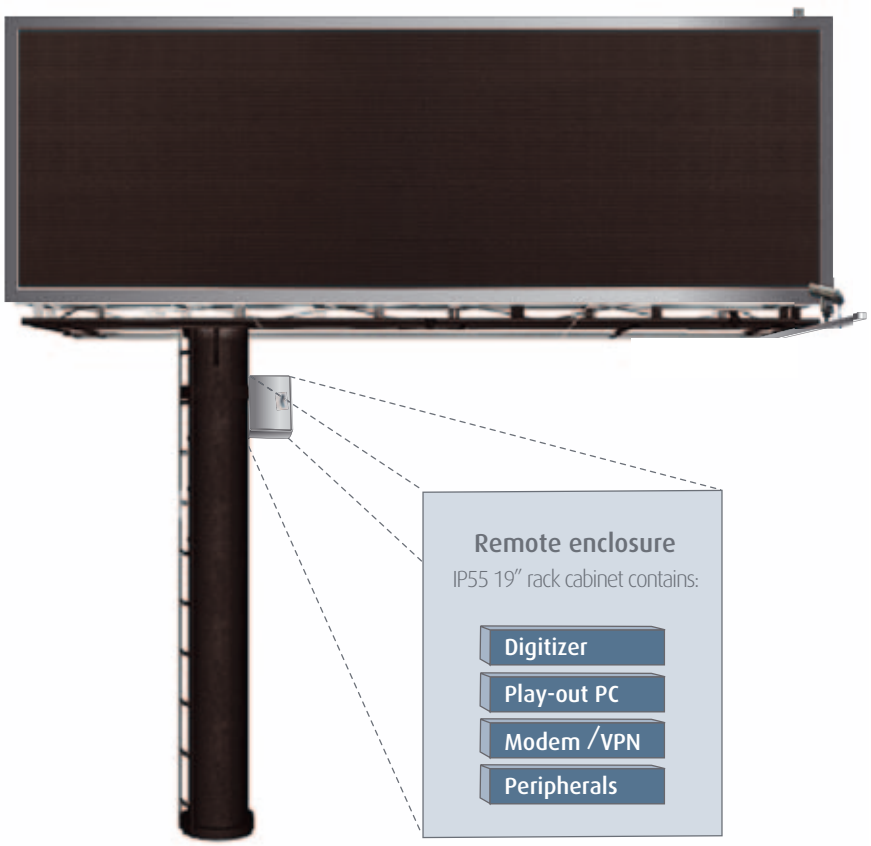


Less heat, low power



Worldwide deployment

Available in three fixed sizes, DB-x20 ships within weeks, and is installed within hours, including the LED screen, ambient environment controller, remote enclosure, and all essential peripherals.



AEC-4000
Continuously detects ambient light and adjusts for day and night brightness. Sensitive enough to detect a passing cloud at noonday.

Universal clamp
A series of clamping mechanisms glide along horizontal tracks for attachment to any existing support structure, making installation fast, safe and simple.

Camera (optional)
Provides continuous visual monitoring of screen status, and interfaces with RMS-1 control and diagnostic software.

IP65 surface
LED screen surface is IP65-certified and weather-proof encased.

Mains power distribution
Provided by customer. Must contain an electrical disconnection device.

Support structure
Provided by customer.

Mallorca

Dallas

Hong Kong


Toronto

Beijing

Total system reliability and service

Designed with reliability in mind, DB-x20 features a redundant power system, remote diagnostic features, and service above and beyond the warranty. Tiles are front-accessible and hot swappable for quick replacement and virtually zero downtime.

Redundant Power System

During local tile power failure, typical digital billboards display only a black, blank tile—particularly noticeable at night, requiring you to send a technician during overtime hours. With DB-x20's redundant power system, a conservative amount of power is delivered to the problem area, allowing continuous delivery of key information (such as logos, phone numbers, web addresses, etc.). During nighttime brightness, power loss isn't even noticed — allowing you to send a technician the next morning.

Typical digital billboard

DB-x20 with redundant power

Intelligent Diagnostics

RMS-1 control software interfaces with DB-x20's intelligent diagnostic features, allowing you to manage your display, view alerts, and monitor problems remotely via the web. RMS-1 provides real-time remote control of the display, individual component diagnostic features (to the LED), brightness and temperature management, monitoring, and maintenance.

Barco, a reliable partner

Barco's extensive history in professional visualization solutions translates into innovative products that exceed industry expectations in mechanical, industrial and electrical design. By selecting Barco as your preferred supplier for digital billboard deployment, you are acquiring what is considered the highest quality and most reliable LED solution available in today's market.

Service beyond the warranty

- 24/7 technical support
- 4-hour onsite response
- Pro-active service monitoring
- Annual preventive maintenance
- Repair, replace or exchange
- 20 U.S. service centers
- Worldwide partners

DB-x20 specifications

	DB-220 Poster	DB-320 Small Bulletin	DB-620 Bulletin
Commercial size	11′ x 22′	10′ 6″ x 36′	14′ x 48′
Visual screen dimensions	10′ 6″ x 22′ 1″ (3.2m x 6.7m)	9′ 5″ x 34′ 7″ (2.9m x 10.6m)	13′ 8″ x 47′ 3″ (4.2m x 14.4m)
Total physical dimensions	11′ 2″ x 22′ 8″ (3.4m x 6.9m)	10′ 1″ x 35′ 4″ (3.1m x 10.8m)	14′ 4″ x 47′ 9″ (4.4m x 14.6m)
Resolution	160 x 336	144 x 528	208 x 720
Pixel pitch	20mm	20mm	20mm
LED configuration	1R, 1G, 1B	1R, 1G, 1B	1R, 1G, 1B
LED density	7,500/m²	7,500/m²	7,500/m²
Brightness[1] (calibrated)	7,200 nits	7,200 nits	7,200 nits
Viewing angle (horizontal)	140° (+/- 70°)	140° (+/- 70°)	140° (+/- 70°)
Viewing angle (vertical)	55° (+15°/-40°)	55° (+15°/-40°)	55° (+15°/-40°)
Contrast	4,000:1	4,000:1	4,000:1
Weight (excluding clamps)	3,175 lbs (1,440 kg)	4,586 lbs (2,080 kg)	8,775 lbs (3,980 kg)
Power consumption (max)	8,600 watts	12,200 watts	24,000 watts
Power (1Ph/240V)	36 amps	51 amps	100 amps
Power (3Ph/208V)	24 amps	34 amps	67 amps
Operating temperature	-31 to 122 °F (-35 to 50 °C)	-31 to 122 °F (-35 to 50 °C)	-31 to 122 °F (-35 to 50 °C)
Color processing	16-bit/color	16-bit/color	16-bit/color
Colors	281 trillion	281 trillion	281 trillion
Serviceability	Front access	Front access	Front access
Typical Lifetime	100,000 hours	100,000 hours	100,000 hours

[1] *measured perpendicular to the display*

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