JCDecaux

MANCHESTER
CITY COUNCIL

Roadside Advertising Estate

FORUM Smart City CIP

A02510

PART 3
Product Detail
April 2024

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Contents

PART 2

- Display Structure Elevation Plans 1:20
- Product Information
- Unit Specification
- Examples

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Display Structure

Product Information

The Forum digital advertising unit that JCDecaux proposes to utilise on the Manchester City Council estate was designed by Lord Norman Foster, a legendary architect and long-term partner of JCDecaux, having also conceived of the premium Foster bus shelter. The digital Forum was designed as a freestanding unit which is slender in profile and double-sided, utilising the latest digital technology and best in class screens from MRI. The screens are fully programmable in terms of hours of operation and brightness, along with the capability to display sequential static and dynamic content subject to local environment conditions. The unit was designed with the future in mind, allowing for the addition of smart city technology to create a more connected city.

Performance

- As an option: Covered with AR (Anti-Reflective) laminated cover glass to improve image visibility.
- Displays great quality fix images and video content due to the high resolution of the screen.
- Maximum brightness up to 2500Cdm^2 which represents the best performance available in the market for an LCD screen. Night setting of 600Cdm^2 in line with ILP guidance
- This product has been designed to optimize manufacturing and operational costs.

Robustness and Durability

- The product has been specially designed for direct outdoor use in a wide range of environment and temperature variations.
- Brightness level is not affected by extreme temperatures and does not degrade over time like other technologies.
- Bumper units are available to protect the base of the unit.

A02510 PAGE 3 OF 8

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Display Structure Elevations	SIZE	FSCM NO	DWG NO	REV
DRAWN MS	A3			
ISSUED	SCALE 1 : 25	Structure Elevations	SHEET 3 OF 8	

Smart City Digital Display Panel

Unit Specification

Modularity
The unit comes with a modular design which makes for quick and simple on-site assembly and servicing. The unit can be either single of double sided, where single face is chosen the rear of the unit with be feature a blank façade in material to match the unit frame

Vandalism
The advertised face of the unit has a laminated tempered glass protective cover that is capable of withstanding direct impact by vehicle or malicious vandalism.
The internal elements of the unit are inaccessible without a special access key, to avoid any tampering with the internal circuitry or unauthorized access to the network. All screws and fixing gears are also invisible outside the unit and designed with materials to prevent abuse of damage

Installation
The display panel is thoroughly tested in the factory before shipment to the site. At the time of delivery, the necessary groundwork and foundations will have been completed using chemical anchors to facilitate rapid on site installation and unit initiation

Certifications
CE

Manageability
- Extensive monitoring capability
- In-built intelligent monitoring/control and maintenance features.

Option to locate PC player in remote location.

Sustainable Development
The unit and all electronic components are power efficient: The LED scheme has a lower power consumption than other forms of roadside self-contained advertising units, due to dynamic dimming control that uses approximately 30-40% less energy and minimizes the impact on the product on the environment. All JCDecaux digital furniture is designed and manufactured to the highest environmental standards to eliminate all single use functions and utilise long life and recyclable materials.

Screen

Technology	LCD	
Size	86"	
Resolution	3840x2160	
Brightness	Max Level	2500Cdm^2
	Night Time	600Cdm^2
Angle of Visibility	Horizontal 178°	
	Vertical 178°	
Contrast ratio	7000:1	
Display colour	72% of NTSC colour gamut	
Backlight technology	Direct LED	
Number of colours	1,064 Billion	

Operating Conditions

Temperature	-30°C/50°C
Humidity	5%-100%
Possible screen orientation	Portrait
Other	Direct sunlight

Weight and Dimensions

Global	1340(W) x 2955(H) x 255(D)mm
Visible	1065(W) x 1895(H) mm
Visible area	2 m²
Weight	510 kg
Screen aspect ratio	16/9

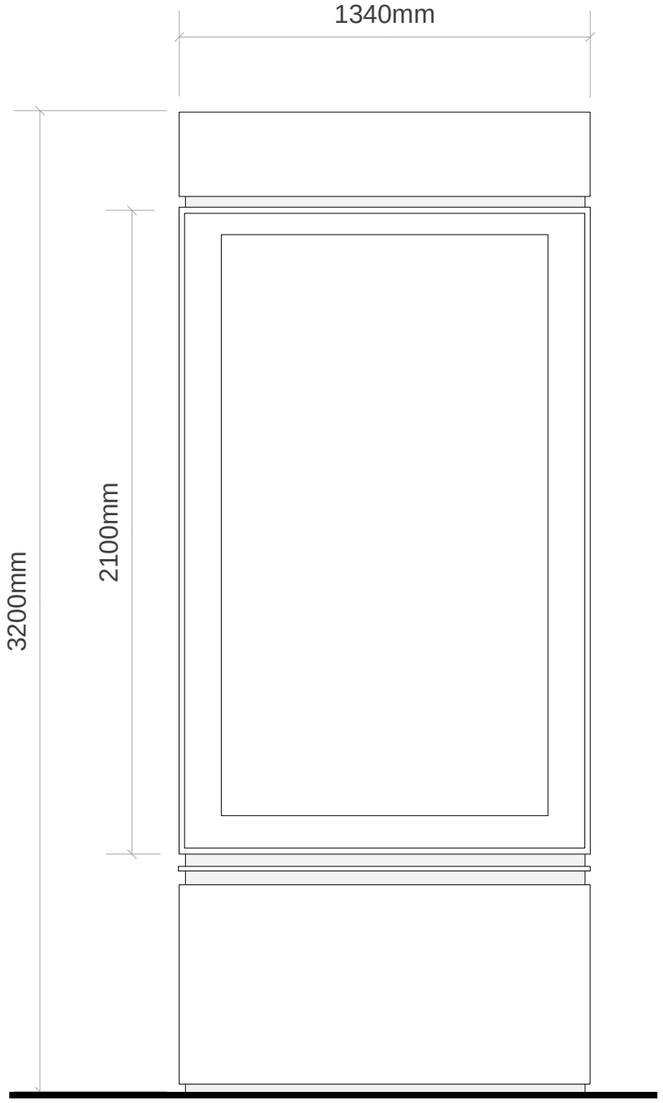
Electricity

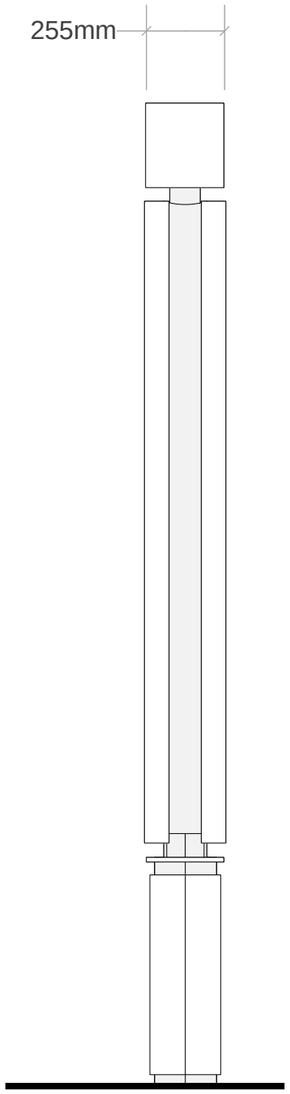
Input Voltage	AC 190-240 V 50/60hz
Max Power	3550 W
Average Power	1012 Wh
Average Consumption	24282 Wh/d (24/7)

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Display Structure

Smart City Unit







SCALE

1: 20

0 0.45 0.75 1.5

A02510 PAGE 5 OF 8

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Display Structure Elevations	SIZE	FSCM NO	DWG NO		REV
DRAWN MS	A3				
ISSUED	SCALE	1 : 20	Structure Elevations	SHEET	5 OF 8

Smart City Digital Display Panel

Unit Functions

Emergency Messaging

JCDecaux is committed to helping its partners ensure the safety of their environments. As part of the CONNECT for Partners platform, Manchester City Council has access to the Emergency Messaging System. This is currently deployed in all Network Rail stations and at Heathrow Airport. The system allows for predefined and formally agreed messages to be displayed within minutes to customise content to each screen traversing JCDecaux's private encrypted data network with no routing over the public internet.

Data Management

JCDecaux's network of smart city units allows the City Council to measure air quality (PM2.5 and PM10, CO2 and VOCs particles), temperature, humidity, noise, UV levels or pedestrian footfall, in conjunction to housing small cell (enhanced connectivity) and LoRa (low range wide area network) integration and Wi-Fi access points. All these parameters are monitored in accordance with data protection of individuals in a modular and open way. Smart city data can be communicated with the City Council through secured channels for sensitive information or through open source systems and secured APIs where there is a benefit to share.

Data transmission and digital management software

Each unit is fitted with a set of secure connections

- From the transmitter to the data server by means of a broadband link.
- From the data server to the different communication devices by an Asymmetric Digital Subscriber Line (ADSL) or fibre link with a 3G/4G backup.

Management of the units is via a specific software platform available on any computer connected to the internet with access rights. Each unit display can be collectively or individually programmable in advance via an intuitive, efficient programming interface. The system set in place allows for the easy creation of real time broadcast messages, setting of the duration, order of messages and instant transmission between messages being entered and being received by the panel. In turn, there is the option of broadcasting a loop to all the panels, to a group of panels or to individual panels.

Accessibility

With an overall height under 3m from ground level and the advertising screen sitting 1m off ground level, the advertising unit is accessible to all and accommodates a wide range of users. The two Ultra HD resolution LCD 86" screens enable a wide viewing angle, providing a 2m square display on each face of the unit. The contemporary design, combined with the inclusion of the Manchester City Council and Manchester Bee symbols, enables immediate identification of a high quality estate of digital advertising units.

Functionality

The screens benefit from the latest technology, such as variable brightness levels and low energy consumption. Brightness levels can be manually set so they never exceed certain levels or programmed to dim dynamically to accommodate varying brightness levels throughout the day. The screens will not exceed 2500Cdm^2 during daylight hours and 600Cdm^2 at night to align with the recommendations of the Institute of Lighting Professionals. The Forum advertising display unit is a JCDecaux product that is sourced, manufactured and supplied from the Global head office in Plaisir, France. The Units will be subject to rigorous maintenance and cleaning regime to maintain their look and function.

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Digital Display Unit

Manchester Smart City CIP Unit

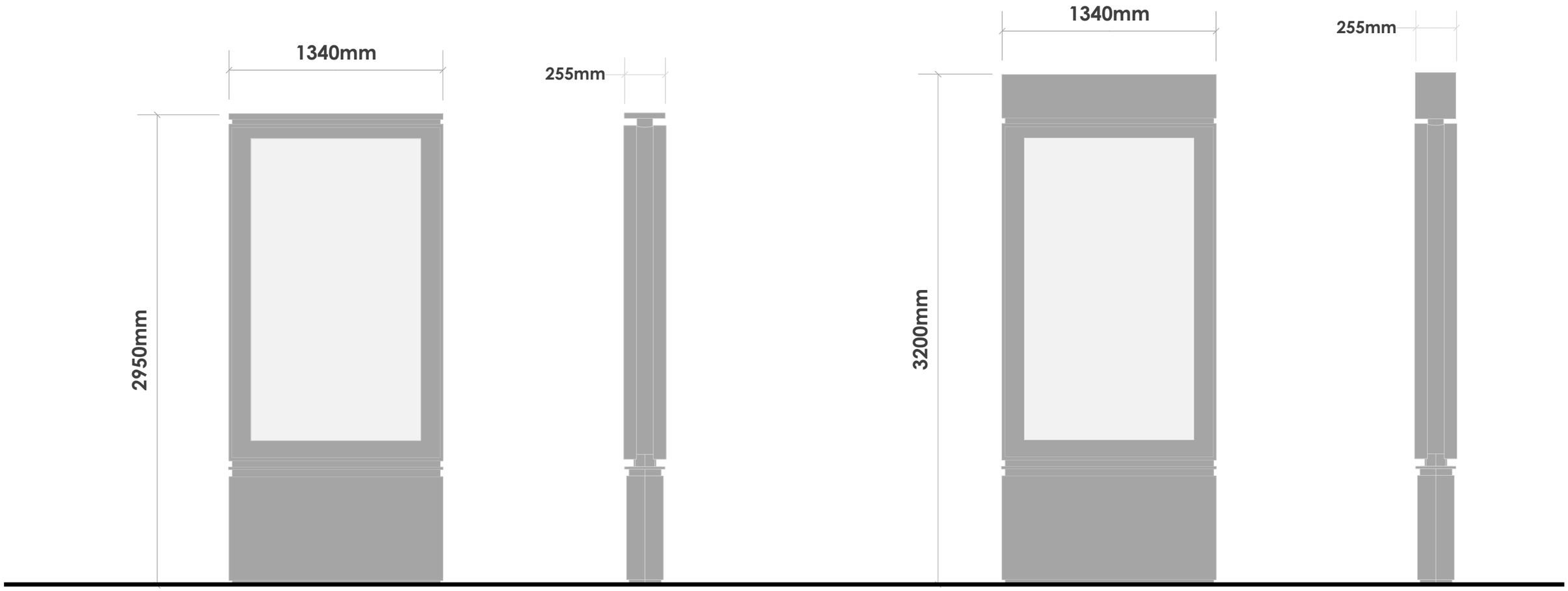




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Replacement Units

Forum CIP Structure



Forum CIP

Forum Smart City CIP

SCALE
1: 25

0 0.75 1.25 2.5

Replacement Forum Structure in MCC	SIZE A3	FSCM NO	DWG NO	REV
DRAWN MS				
ISSUED	SCALE 1 : 25	Structure Comparison	SHEET 8 OF 8	

A02510 PAGE 8 OF 8

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