

Verizon Smart Communities City Hub®

Data sheet

Improve city lighting while creating the city sensor platform of the future.

City Hub® provides power and connectivity to Internet of Things (IoT) devices and enables smart cities solutions such as lighting, traffic, parking and public safety. In addition, City Hub® can be easily installed on LED luminaire photo receptacles for remote monitoring and control.

Main features

- Simple plug-and-twist mounting—luminaires using the existing National Electrical Manufacturers Association (NEMA) photocontrol socket (in accordance with ANSI C136.41)
- Advanced lighting control with 0 to 10 V dimming
- Up to 30 W of Power over Ethernet (PoE) power source and Ethernet data connectivity
- Wi-Fi and cellular LTE wireless connectivity options
- Compatible with Verizon Smart Communities 4K video nodes
- Utility-grade metering class 0.5 accuracy

LTE and Wi-Fi connectivity

No additional networking equipment is needed to deploy with LTE connectivity. Fast, reliable, nationwide 4G LTE connectivity from Verizon Wireless is available as either the primary connectivity option or as backup for Wi-Fi network connectivity.

Lighting control

City Hub® is connected to incoming AC mains and the LED driver. This direct connection provides on/off control and performance monitoring of the luminaire. Luminaire dimming control follows 0 to 10 VDC dimming standard.

Onboard sensors

As you remotely monitor with City Hub®, you'll have access to a variety of onboard sensors, including GPS, photocell, power metering, temperature and accelerometer.



Auxiliary sensor ports

If you want to gather additional data, City Hub® comes with auxiliary sensor ports, such as a POE port, an audio port and a nector port for AC power and 12 DC power line communication.

Edge processor

Quad-core CPU enables high-performance edge processing and analytics capability.

Security

City Hub® connects to the network using highly secure, certification-based authentication and encryption for each device.

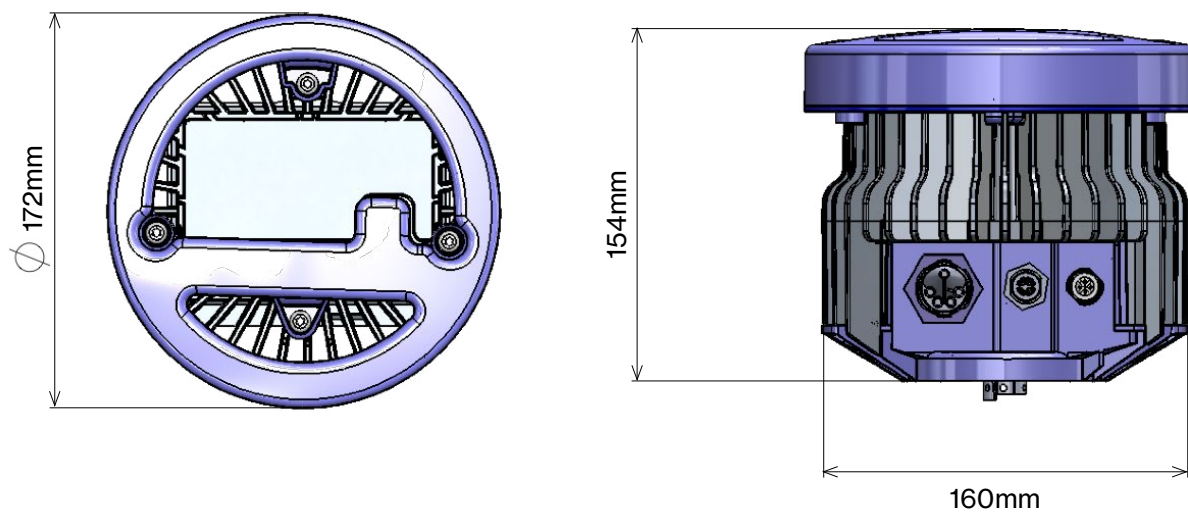
Certifications



Product specifications

Order code	S80-000120	S80-000121
Communication		
Communication	Cellular (4G LTE) and Wi-Fi	Cellular (4G LTE) and Wi-Fi
LTE frequency bands	LTE bands 4 and 13	LTE bands 4 and 13
Cellular data rate	LTE CAT-4	LTE CAT-4
Wi-Fi protocols	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac
Power and electrical		
AC input and output voltage	120-277 V/60 Hz	347-480 V/60 Hz
Max power consumption with PoE load	45 W	45 W
Node power consumption (no external load)	Typ 6 W, max 10 W	Typ 6 W, max 10 W
Total AC current input	Max 10 A	Max 8 A
Utility-grade metering accuracy	Class 0.5 (Relevant sections of ANSI C12.20)	Class 0.5 (Relevant sections of ANSI C12.20)
Onboard sensors	Photocell, GPS, power metering, temperature, accelerometer	Photocell, GPS, power metering, temperature, accelerometer
GPS accuracy	3 m (clear open sky)	3 m (clear open sky)
LED luminaire control		
Max AC current to LED luminaire	Max 5 A relay switched	Max 3 A relay switched
Dimming control output	0-10 VDC	0-10 VDC
Physical		
Mounting	Twist-lock NEMA photo receptacle (ANSI C136.41)	Twist-lock NEMA photo receptacle (ANSI C136.41)
Weight	5.8 lbs	5.6 lbs
Color	Gray with blue rim	Gray with yellow rim
Dimensions	154 mm height x 172 mm diameter	154 mm height x 172 mm diameter
Sensor ports		
Power over Ethernet (PoE) PSE	IEEE 802.3at/802.3af; M12 X-coded connector; 54 VDC (max 30 W)	IEEE 802.3at/802.3af; M12 X-coded connector; 54 VDC (max 30 W)
Audio node port	M12 connector	M12 connector
Nector port	AC (max 2 A) and 12 VDC (max 5 W)	AC (max 2 A) and 12 VDC (max 5 W)
Environmental and compliance		
Water ingress	IP64 when installed in vertical mounting orientation in NEMA twist-lock (pending)	IP64 when installed in vertical mounting orientation in NEMA twist-lock (pending)
Vibration	3G vibration	3G vibration
Operating temperature	-30 C to 55 C	-30 C to 55 C
Certifications:	UL, FCC, Verizon 4G LTE, RoHS UL file #E478230	UL, FCC, Verizon 4G LTE, RoHS UL file #E478230
Region of Certification and LTE Operation	USA	USA

Mechanical dimensions



Ordering information

Order Code	Description
S80-000120	City Hub®, LTE and Wi-Fi, 120 to 277 V
S80-000121	City Hub®, LTE and Wi-Fi, 480 V

For ordering information on software services enabled by City Hub®, please contact Verizon Smart Communities.

For product installation instructions, please refer to the City Hub® Product Installation Guide, or contact Verizon Smart Communities.