ACCESS360

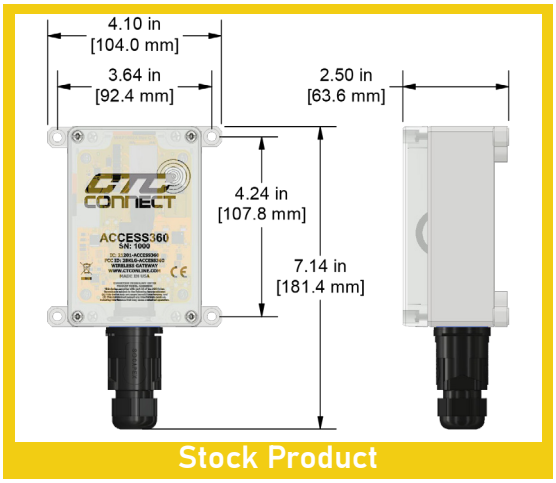
ConnectBridge™ Network Controller
& Wireless Gateway

Product Features

Used for connecting CTC Connect compatible products to a TCP/IP network. Can support MQTT IoT Protocol, Modbus TC/IP, and WebSocket Connection for data transfer.

Receives data from CTC Connect devices and facilitates bi-directional transfer of data.

10 Sensor Inputs* - Mix and Match ConnectSens™ WS100, WS200 and WS300 Sensors.



Stock Product

The Ethernet cable backshell for ACCESS360 is built to accommodate an industry standard RJ45 Ethernet connector. Any strain relief on the connector cannot exceed a width of 7/16 in. (11.1 mm).

Component Specifications

Input	**Bluetooth®** signals from CTC ConnectSens™ wireless sensors
Output	Gigabit Ethernet with IEEE 802.3af PoE
Wireless Communication	**Bluetooth®** Low Energy 5.2
Supported Signal Strength	-20 dBm to -75 dBm
Connected Sensor Range	≤ 140 m†
ISED ID	21201-ACCESS360
FCC ID	2BKLG-ACCESS360
Storage	4 GB dedicated, with pre-installed 32 GB SD card (removable and expandable)
Material	Polycarbonate
Compatible Sensor	Any CTC Connect devices, and compatible sensors related to them
Power	48 VDC PoE Injection (IEEE 802.3af or above)
Power Consumption	1 W
Minimum Supply Voltage	40 V
Input Count	10 sensor inputs* - mix and match ConnectSens™ WS100, WS200, and WS300 sensors

*Each ACCESS360 is capable of discovering more than 10 dynamic sensors; however, each gateway is only capable of maintaining 10 active BLE connections at once. Sensors beyond this will be in advertising mode until there is time to service them. CTC recommends 1 gateway per 10 dynamic sensors for maximum validated and supported system performance.

†Wireless sensor range is highly dependent on the industrial environment and its impact on Bluetooth® signal strength. Sensors have been tested up to **140 m (459 ft.)**; however, this value is provided as a guideline only. Reliable operation requires a minimum received signal strength of **-75 dBm**. If signal strength falls below -75 dBm, the gateway must be repositioned closer to the sensor or an additional gateway added.

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Available Data Analysis

Available for ConnectSens™ WS200 and WS300 dynamic capture sensors

Peak Calculations

RMS Calculations

Peak-to-Peak Calculations

FFT Calculations*

Overall Amplitude Trends

Temperature Trends

*FFT properties are dependent on sensor configuration. FFT calculations cannot be configured

Calculated FFT Properties:

Sensor Configuration			Resulting FFT Properties		
Sampling Frequency	Number of Samples	Total Reading Duration (s)	Fmax	Lines of Resolution	Frequency Resolution
400 Hz (24000 CPM)	1600	4	200 Hz (12000 CPM)	800	0.25
	3200	8		1600	0.125
800 Hz (48000 CPM)	1600	2	400 Hz (24000 CPM)	800	0.5
	3200	4		1600	0.25
	6400	8		3200	0.125
1600 Hz (96000 CPM)	1600	1	800 Hz (48000 CPM)	800	1
	3200	2		1600	0.5
	6400	4		3200	0.25
	12800	8		6400	0.125
3200 Hz (192000 CPM)	1600	0.5	1600 Hz (96000 CPM)	800	2
	3200	1		1600	1
	6400	2		3200	0.5
	12800	4		6400	0.25
	25600	8		12800	0.125
6400 Hz (384000 CPM)	1600	0.25	3200 Hz (192000 CPM)	800	4
	3200	0.5		1600	2
	6400	1		3200	1
	12800	2		6400	0.5
	25600	4		12800	0.25
	51200	8		25600	0.125
12800 Hz (768000 CPM)	3200	0.25	6400 Hz (384000 CPM)	1600	4
	6400	0.5		3200	2
	12800	1		6400	1
	25600	2		12800	0.5
	51200	4		25600	0.25
	64000	5		32000	0.2
25600 Hz (1536000 CPM)	6400	0.25	12800 Hz** (768000 CPM)**	3200	4
	12800	0.5		6400	2
	25600	1		12800	1
	51200	2		25600	0.5
	64000	2.5		32000	0.4

**Fmax exceeds mechanical sensor resonance