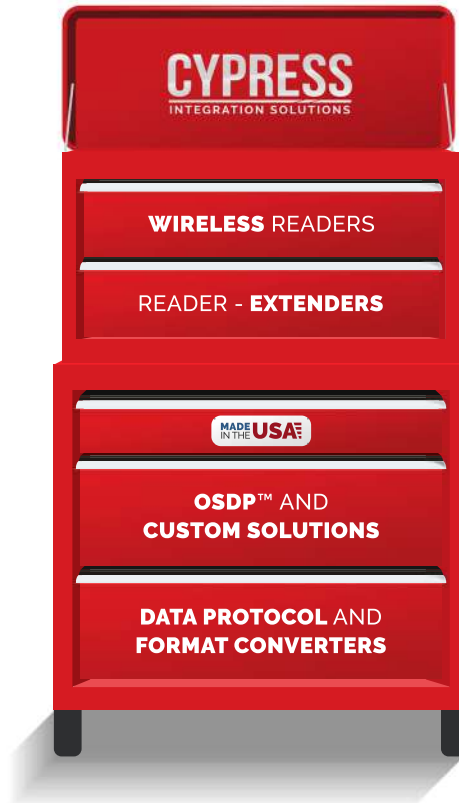


SECURITY, ACCESS CONTROL, AND OSDP™

TOOLS OF THE TRADE



CYPRESS
INTEGRATION SOLUTIONS



Cypress is your toolbox of **security, access control, OSDP** and **custom solutions** that save time, labor, and money.

3

SUPREX® SUPERVISED READER-EXTENDERS (Wired/Wireless)

6

WIRELESS HANDHELD READERS

8

OSDP™ SOLUTIONS

10

WIEGAND SPLITTERS & ROUTERS

12

DATA CONVERTERS

14

MORE ACCESS CONTROL SOLUTIONS

15

PRODUCT NUMBERS & RANGES



Learn about the
Cypress Lifetime Warranty for most
products at CypressIntegration.com/Warranty

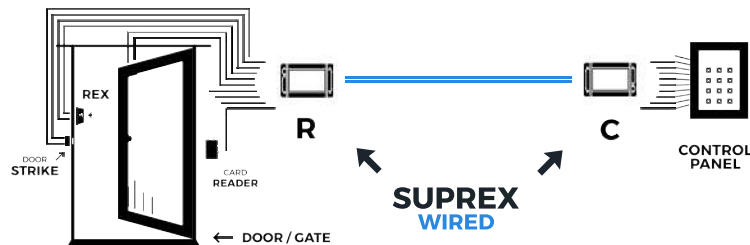
Reader-Extenders



Access control installations **traditionally** require **10+ wires** between the door and controller, and are typically **limited** to 500 ft.



The **Suprex** is a pair of units: The Remote unit connects to the reader/door hardware and the Central unit connects to the controller. The two units communicate over **RS-485, Ethernet, fiber optic,** or a **wireless** connection.



This allows readers to be installed much farther from the controller and **addresses installation/environmental challenges.**

Wired Suprex® Reader-Extenders

Connect readers to access controllers without Wiegand limits, using **RS-485**, **Ethernet**, or **fiber optic**. Includes pair of extender units (Central & Remote).

RS-485 models



SPX-1300 (single reader; 3048 m / **10000 ft.†**)

SPX-7500 (accommodates Expansion Module Sets; 1219 m / **4000 ft.†**) High immunity to electrical noise under adverse conditions, such as elevator installations.

Ethernet model



SPX-7200 Install readers anywhere on existing network (unlimited range), or connect directly with Ethernet crossover cable (100 m / **328 ft.†**).

Fiber Optic models



SPX-7400 multi-mode (3.21 km / **2 mile†**)

SPX-7410 single-mode (38.62 km / **24 mile†**)

Use with dark fiber, or where excessive heat, lightning, saltwater intrusion, erosion, or industrial / corrosive sites exist.

† Typical range, depending on environment

Wireless Suprex® Reader-Extenders

Allows installation of readers across parking lots, roads, railroad tracks, or in other buildings. Includes pair of extender units (Central & Remote).



SPX-5631 (1524 m / **5000 ft.†**)

SPX-5641 (3048 m / **10000 ft.†**)

Reader-Extender Accessories

Expansion Module Set

EXP-2000 Use with a Suprex to connect up to 8 readers (1 additional EXP set per reader). Compatible with all Suprex models except SPX-1300.

Repeater

RPT-5651 (1524 m / **5000 ft.†**)

Use with a Wireless Reader-Extender to extend distance or bypass obstacles.

Suprex® Reader-Extender ADVANTAGES

All **Suprex** models and EXPs support these I/O channels:

- **LED** (for LED control on readers)
- **Auxiliary** (active low-input from Remote to Central)
- **Relay 1 & 2** (typically used to activate door strike or gate controller)
- **Relay 3 & 4** (typically used for REX switches or supervision relays)

All **Suprex** models and EXPs support these data interfaces:

- **Wiegand** (24-248 bits)
- **Wiegand No Filter** (4-248 bits, for keypad readers)
- **Strobed Rising Edge** (MR5)
- **Strobed Rising Edge** (Dorado 644)
- **Strobed Rising Edge** (Mag-Tek)
- **Strobed Falling Edge**
- **Unsupervised F/2F**



Learn more at: CypressIntegration.com/ReaderExtenders



Space



Dark Fiber



Elevators



Electrical
Noise



Retrofits



Perimeter
Protection



Harsh
Environments

WIRELESS

Handheld Credential Reader

The **handheld reader** verifies credentials by wirelessly communicating with the controller's live database through the matched base unit. The handheld unit can control a relay for functions such as opening doors or gates, or triggering possible duress notifications. **Secure Channel encryption available.**

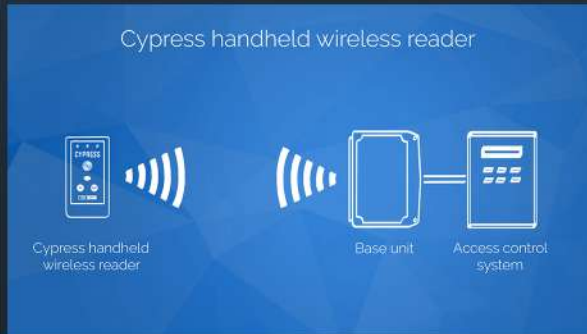
Typical wireless range without repeaters:

- **45.7 m (150 ft.)** indoors, depending on environment
- **152.4 m (500 ft.)** outdoors, depending on environment

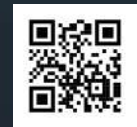
See credential technologies, page 15.



HHR-3166



Handheld wireless reader for rapid disaster deployment, mustering, in-vehicle credential checks, and staff enrollment.



See the video at CypressIntegration.com/WirelessReaders



Wireless Reader Kits



Credential Options	Dual-Lane Kit	Single-Lane Kit	2-Reader Kit (Single-Lane)
		1 Handheld Reader with gate-selection 1 Charging Dock and Charger 1 Base Unit with 2 Wiegand outputs	1 Handheld Reader (no gate selection) 1 Charging Dock and Charger 1 Base Unit with 1 Wiegand outputs
Farpointe Prox Low Frequency module (125 kHz)	HHR-3152	HHR-3162	HHR-3262
HID* ICLASS SE* Dual Frequency module (13.56 MHz/125 kHz)	HHR-3156	HHR-3166	HHR-3266
Farpointe Delta 3 High Frequency module (13.56 MHz)	HHR-3157	HHR-3167	HHR-3267
HID* ICLASS SE* High Frequency module (13.56 MHz)	HHR-3158	HHR-3168	HHR-3268
HID* ICLASS SE* Low Frequency module (125 kHz)	HHR-3159	HHR-3169	HHR-3269

IEEE 802.15.4 wireless protocol • Typical wireless range: 45.72 m indoors; 152.4 m outdoors * / 150 ft. indoors; 500 ft. outdoors (depending on environment)



Healthcare



Construction &
Temporary Entrances



Industrial



Space



Enrollment
& Assembly



Perimeter
Protection



Mustering

OSDP SOLUTIONS

For Adopting SIA's Powerful,
Secure Standard



- SIA's **Open Supervised Device Protocol** access control standard
- Expected to be an approved **IEC standard** in 2020
- SIA encourages **broad adoption** and recommends specifying **OSDP** for any access control installations that require real security and/or will be used in government and other higher security settings

OSDP Benefits



Higher security: OSDP with Secure Channel includes encryption and authentication to resolve the Wiegand vulnerability



Interoperability: Mix & match components to help future-proof systems



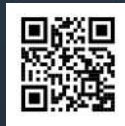
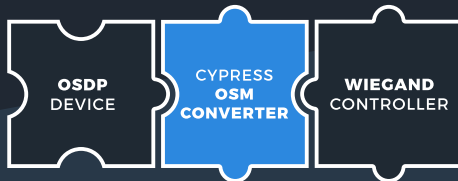
Advanced Functionality: Uses 2 wires instead of 10+, allows for multi-drop installations, 2-way communication for sophisticated processing and supervision



Ease of Use: Low cost of implementation on an embedded device



OSDP
RetroFit
& **SECURE**



CypressIntegration.com/OSDP

Ask about other Cypress OSDP solutions



OSM-1000

OSDP-Wiegand Converter: Install near a Wiegand reader or panel to connect OSDP and Wiegand devices.



OSM-CPI

Wiegand Control Panel-OSDP Interface: Connect a Wiegand access control panel to an OSDP reader by using this dedicated Wiegand panel converter.

WIEGAND

Splitters



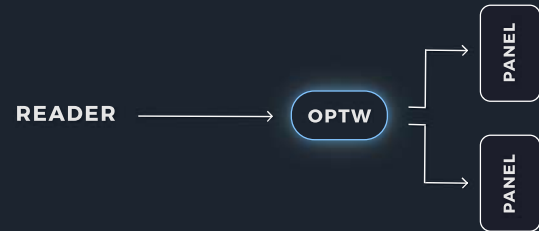
CVX-OPTW



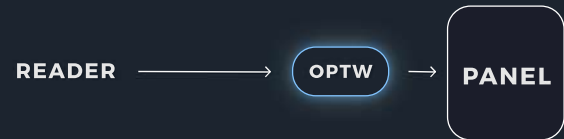
The **Passive Wiegand Splitter** connects 2 readers with one panel using the same Wiegand port.



It can connect 1 reader with 2 panels sharing the same data.



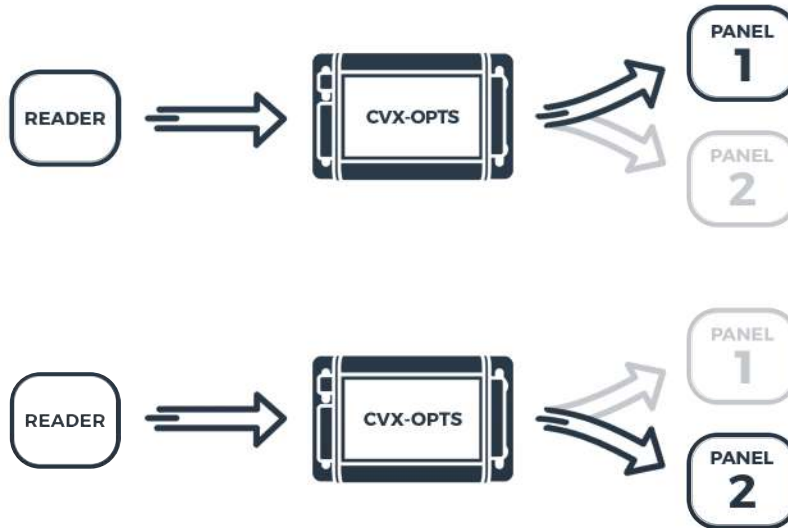
It is also an optical-isolator and can be used to connect devices with different Wiegand voltage levels.



WIEGAND

Routers

The **Intelligent Wiegand Router** is custom-engineered to connect a reader with 2 panels and route data to the appropriate panel.



CVX-OPTS Wiegand Router

Capabilities

- One input port & two output ports
- Able to process **1-1024 bits** of Wiegand data
- Supports **multiple credential formats** assigned to each output port
- Supports routing based on **up to two specified fields per credential format** (typically facility code and card number fields)
- Supports routing based on **field value whitelist**
- Supports routing based on field value within a **specified range of values**
- Supports **multiple application settings** (selectable by DIP switches)
- Supports **anti door-forced feature** using relays



Learn more at: CypressIntegration.com/CustomSolutions



Education



Industrial



Apartments

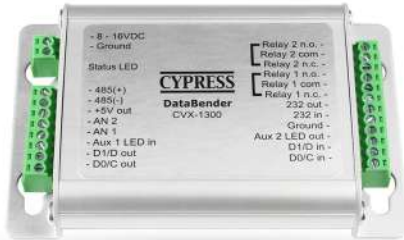


Transportation



Financial

DATA CONVERTERS



Cypress Data Converters are used to integrate new or non-traditional devices with existing devices, instead of completely replacing incompatible equipment.

The Multi-Format Data Converter enables dozens of field-selectable conversions.

Examples of common conversion settings include:

- RS-232 10-digit ASCII decimal to Wiegand 26 bit
- RS-232 12-digit ASCII decimal to raw Wiegand 40 bit
- Wiegand 24-48 bit to RS-232 13-digit ASCII Decimal
- Wiegand-to-Wiegand conversions



CypressIntegration.com/DataConverters

Cypress **custom-engineers** Data Converters for **specific customer applications**

CVX-1400 Custom Data Converter Capabilities

- Supports up to two **Wiegand** and **Strobed** interfaces, one **RS-232**, and one **RS-485** interface
- Supports **four digital I/O pins**
- Supports **two digital input pins**
- Supports **two analog input pins**
- Supports **two dry contact relay outputs**
- Converter I/O can be activated based on customer specified triggers
- Customer specified conversion logic



MORE

Access Control Solutions



WDG-5912

Data Wedge

Connects to a Wiegand reader and plugs into a computer USB port, then 'types' badge data into an Excel file or other software, emulating keyboard keystrokes. **Allows collection of credential data**, similar to a control panel. **Useful for debugging and time & attendance.**



TSP-3100

Barcode scanner kit

Pairs a pre-configured Data Converter and scanner to convert barcodes or QR codes to Wiegand. Recommended for **visitor lobby, time & attendance, turnstile, parking, and point-of-sale** applications.



CCK-3104

Time Display series

Synchronizes access control panel with displayed time to prevent labor issues. Time drivers and time display components are available.

Product Numbers and Ranges

Product Numbers and Ranges			
Handheld Wireless Reader Kits 2.4 GHz IEEE 802.15.4 wireless protocol Typical wireless range: 45.72 m indoors; 152.4 m outdoors † / 150 ft. indoors; 500 ft. outdoors †			
Credential Options	1-Reader Kit for 2 Doors/Gates (gray white)	1-Reader Kit for 1 Door/Gate (gray white)	2-Reader Kit for 2 Doors/Gates (gray white)
	1 Handheld Reader with gate-selection 1 Charging Dock and Charger 1 Base Unit with 2 Wiegand ports	1 Handheld Reader (no gate selection) 1 Charging Dock and Charger 1 Base Unit with 1 Wiegand port	2 Handheld Readers (no gate selection) 2 Charging Dock and 2 Chargers 1 Base Unit with 2 Wiegand ports
Farpointe Prox Low Frequency module (125 kHz)	HHR-3152-GY HHR-3152-WH	HHR-3162-GY HHR-3162-WH	HHR-3262-GY HHR-3262-WH
HID® iCLASS SE® Dual Frequency module (13.56 MHz/125 kHz) CE	HHR-3156-GY HHR-3156-WH	HHR-3166-GY HHR-3166-WH	HHR-3266-GY HHR-3266-WH
Farpointe Delta 3 High Frequency module (13.56 MHz)	HHR-3157-GY HHR-3157-WH	HHR-3167-GY HHR-3167-WH	HHR-3267-GY HHR-3267-WH
HID® iCLASS SE® High Frequency module (13.56 MHz) CE	HHR-3158-GY HHR-3158-WH	HHR-3168-GY HHR-3168-WH	HHR-3268-GY HHR-3268-WH
HID® iCLASS SE® Low Frequency module (125 kHz) CE	HHR-3159-GY HHR-3159-WH	HHR-3169-GY HHR-3169-WH	HHR-3269-GY HHR-3269-WH
Suprex® Supervised Reader-Extenders			
2.4 GHz Wireless, IEEE 802.15.4 wireless protocol	SPX-5631* (1524 m / 5000 ft. typical range w/o RPT†)	SPX-5641* (3048 m / 10000 ft. typical range w/o RPT†)	
RS-485	SPX-1300 (single reader; 3048 m / 10000 ft. typical range†)	SPX-7500* (accommodates Expansion Module Sets; 1219 m / 4000 ft. typical range†)	
Ethernet	SPX-7200*		
Fiber Optic	SPX-7400* (multi-mode; 3.21 km / 2 mile typical range†)	SPX-7410* (single-mode; 38.62 km / 24 mile typical range†)	
Expansion Module Set	EXP-2000		
Repeater (for Wireless Suprex/Handheld Reader)	RPT-5651 (1524 m / 5000 ft. typical range†)		
OSDP Converters OSMIUM™ Series SIA's Open Supervised Device Protocol standard			
OSDP-Wiegand Converter (Board only)	OSM-1000 OSDP Verified to meet SIA independent conformance testing (1219 m / 4000 ft. typical RS-485 range)		
Wiegand Control Panel-OSDP Interface	OSM-CPI		
Data Converters			
Multi-format	CVX-1300		
Custom	CVX-14XX**		
Wiegand Splitters & Routers			
Passive Splitter	CVX-OPTW		
Intelligent Router	CVX-OPTS**		
Data Wedge			
Wiegand-to-USB keyboard wedge	WDG-5912		
Barcode Scanner Kits (kit includes Data Converter, barcode scanner)			
Optical; multiple barcode/QR formats	TSP-2104		
Laser; one-dimensional barcode	TSP-3100		
Time Display Series: Synchronized clock drivers and time displays			
Driver, CASI Micro 5 and Sensomatic protocols	CCX-1350		
Driver, CCX-1350 with time zone support	CCX-1351		
Driver, Mercury and NexWatch protocols	CCX-1360		
Time display, LED (10.16 cm / 4 inch)	CCK-3104		

*Suprex can be expanded to add more readers using EXP-2000 Expansion Module Sets (maximum 7 additional readers using 1 set per added reader) | †Depending on environment | **Requires custom engineering

CYPRESS

INTEGRATION SOLUTIONS

Cypress access control solutions
are built in the USA with **37+ years**
of industry expertise.

solutions@cyprx.com

CypressIntegration.com

810-245-2300



Access this catalog in English
and other languages at:
CypressIntegration.com/Catalog

