



CONVERGENCE SYSTEMS LIMITED

OUTDOOR RATED INTELLIGENT READER

# CS203x INTELLIGENT READER

CS203x is the next generation of intelligent fixed readers from CSL. Offering an event engine with multiple layer nested logic for full embedded business automation. The CS203x offers an edge server to allow easy HTTP access for configuration, status monitoring, and direct RFID inventory. Offering cloud server connectivity for fully synchronized ubiquitous operation anywhere, and allowing remote installation and configuration (demonstration purpose only, user can use sample source codes to port to their own cloud). CS203x has a rich API compatibility portfolio, including the CSL HTTP/XML protocol with full event

Protocol and MACH1 Protocol. The CS203x reader connects to sensors and peripherals via its optically isolated GPIO, USB ethernet and serial connections. The event engine\* inside CS203x integrates all these sensors and RFID inventory operation seamlessly to attain sensor fusion so that business processes can be further programmed inside the CS203x to make decisions and then in turn effect external peripherals, such as activating stack lights, gate barriers, etc. CS203x has a fully open Linux OS for ease of application development.

## PRODUCT FEATURES:

**Built in Event Engine\* for Intelligent Automation & IoT integration.**

**1 Internal Antenna & 1 External Antenna Port.**

**Long read range of 22 meters - tag, reader antenna and environment dependent.**

**High read rate 800 tags/second (Using Reader Mode=3: Maximum Throughput Mode).**

**Dense Reader Mode DRM available.**

**Ethernet connectivity with PoE+ (IEEE.802.3at).**  
Note: will only work with PoE "at".

### 4 APIs Supported:

CSL HTTP/XML  
CSL Unified  
LLRP  
MACH1

**TLS security with digital certificate using AES256 encryption.**

**2 Year Standard Warranty.**

\*details of event engine in CSL website.



HORIZONTAL mount option



Cloud-friendly



Event engine built-in automation



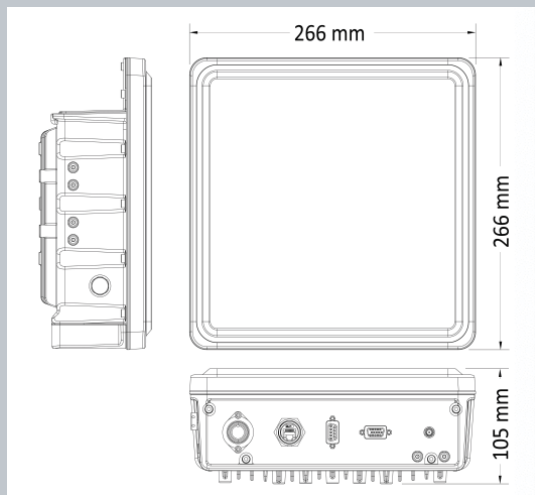
Open Linux



Connectivity



**INTEGRATED INTELLIGENT READER**



Contact us at [info@convergence.com.hk](mailto:info@convergence.com.hk)  
or visit our website at [www.convergence.com.hk](http://www.convergence.com.hk)

**CS203x INTELLIGENT READER**

Order Code for Frequency Regulations: CS203x  
 N=1 865-868 MHz (Europe) & 865-867 MHz (India)  
 N=2 902-928 MHz USA & Canada & Mexico-HFL  
 N=2 AS for 920-926 MHz, Australia only-HFL  
 N=2 NZ for 921.5-928 MHz, New Zealand only-HFL  
 N=2 OFCA for 920-925 MHz, Hong Kong only-HFL  
 N=2 RW for 902-928 MHz, Rest of the world that are subset of this band: e.g. Philippine, Brazil, Peru, Uruguay, Singapore, Thailand, etc.  
 N=4 922-928 MHz, Taiwan  
 N=7 920-925 MHz, China, Malaysia, etc.  
 N=8 916.7-920.9 MHz, Japan  
 N=9 915-921 MHz, Europe Upper Band  
**(HFL: Hopping Frequencies Locked)**

**Applications**

Vehicle Mounting

Student Monitoring

Quality Control

Logistics

Asset Management

Personnel Tracking

Remote Monitoring

Waste Disposal Management

Vehicle Monitoring

Animal Tracking

Cold Chain Management

Auto Toll Gates

Dimensions and Weight	Length: 266mm (10.47in); Width: 266mm (10.47 in.); Thickness: 105 mm (4.13 in); Weight: 3.15 kg
Edge Software	Edge server with intelligent event engine, and accepting 4 API's: CSL HTTP/XML, CSL Unified, LLRP and MACH1
Operating System	Linux
Processor	Dual Core Arm Cortex® -A9, 1GB DDR3 RAM, 16GB flash
Read Range of RFID	Read distance up to 22 meters (tag and environment dependent)
Protocol	ISO18000-6C, EPC UHF Class1 Gen 2 Dense Reader Moda available (Class 3 Gen 2 compliant)
Frequency Range	One of the following 865-868 MHz, 865-867 MHz, 902-928 MHz, 922-928 MHz, 920-925 MHz, 915-922 MHz
External Control	4xGPO and 4xGPI, Optically Isolated, additional isolated 12v output
Environment	Operating Temp: -20° C to 50° C (-4° F to 122° F ) Storage Temp: -40° C to 85° C (-40° F to 185° F ) Humidity: 98% Non-condensing
Connectivity	Ethernet
Power Supply	DC Supply (12V,5A), or PoE+(IEEE802.3at) (will only work with PoE "at")
Dust & Water Proof	IP68
Mounting Style	100 x 100 mm VESA M6 Threaded Holes (M6 Screws provided)
Antenna Polarization	Circular