

ioLogik 2500 系列

具備 Click&Go Plus 邏輯的智慧乙太網路遠端 I/O



特色與優點

- 具備 Click&Go Plus 控制邏輯的前端智慧，多達 48 項規則
- 與 MX-AOPC UA 伺服器進行的主動通訊
- 使用 MX-AOPC UA 日誌軟體自動補充斷線週期資料
- 內建 4 埠非網管型交換器，用於連接乙太網路裝置
- 用於菊鏈連接的 I/O 擴充連接埠，可連接多達 8 個 ioLogik E1200 裝置
- 三合一串列埠：RS-232、RS-422 或 RS-485
- 支援 SNMP v1/v2c/v3
- 使用 Windows 或 Linux 版 MXIO 程式庫簡化 I/O 管理
- 提供寬操作溫度型號，適合 -40 至 75°C (-40 至 167°F) 環境

認證



簡介

ioLogik 2500 智慧乙太網路遠端 I/O 裝置採用獨特的硬體和軟體設計，因此成為各種工業資料擷取應用的理想解決方案。ioLogik 2500 的硬體設計包括 4 埠非網管型乙太網路交換器和 2 個串列埠，能夠無縫連接至各種現場裝置。

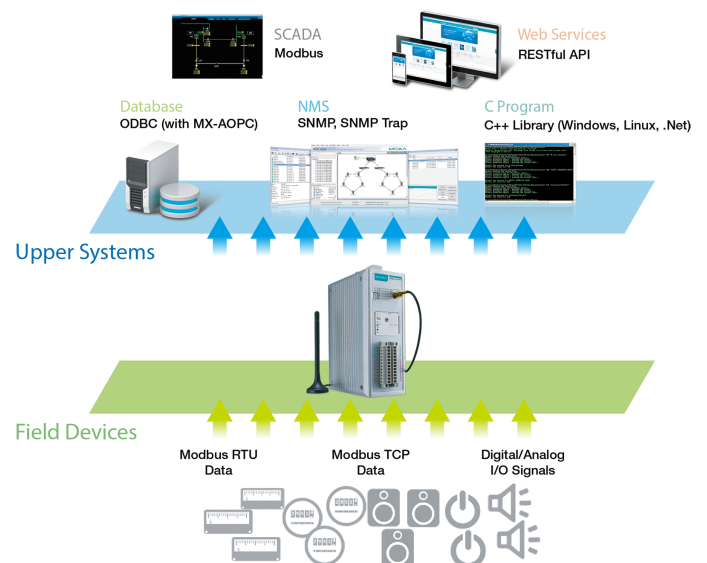
其中的一個乙太網路連接埠可用於連接 8 個菊鏈 ioLogik E1200 擴充模組，藉以提供 100 多個通道。ioLogik 2500 做為「主機」裝置，使用 Click&Go Plus 邏輯控制整個 I/O 陣列。最重要的是，只需要 IP 即可將整個 I/O 陣列連接至您的網路，為 IP 位址數量不足的工業現場提供完美的解決方案。

免程控 Click&Go Plus™ 邏輯

Click&Go Plus™ 控制邏輯支援多達 48 個規則和 8 個條件/動作。此外，其圖形化使用者介面還提供 3 個邏輯間和 3 個多層，協助您建構更強大、更有效率的 IO 解決方案。您完成 Click&Go Plus™ 邏輯規則的設定後，IOxpress 易於使用的模擬功能可用於在將 Click&Go Plus™ 規則上傳到您的線上裝置之前發現其中的潛在錯誤。

多協定資料集中器

透過支援多種協定，ioLogik 2500 提高收集現場資料並傳送到上層系統的效率。對於現場資料收集，ioLogik 2500 可以透過 Modbus TCP 和 Modbus RTU 從其他第三方裝置收集資料，也可以讓您連接多達 8 個 ioLogik E1200 模組，藉以建立配備 100 多個不同 I/O 通道的多樣化 I/O 陣列，從而允許上層系統存取所有現場資料。對於上層系統，ioLogik 2500 支援 Modbus TCP、SNMP、SNMP Trap、RESTful API、Active OPC 標籤和 C++ 程式庫，可輕鬆與各種 IT/OT 系統整合，因此 ioLogik 2500 成為將現場連接到網路的完美資料集中器。



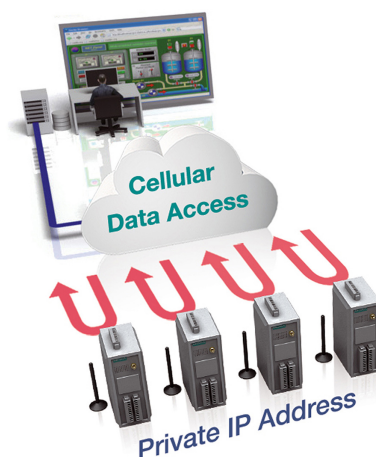
本機儲存資料記錄的資料完整性

ioLogik 2500 支援 microSD 卡，因此 microSD 卡變成功能強大的資料記錄器，可用於儲存重要的資料。來自現場的重要資料可以由不同的系統透過 FTP 遠端存取，ioLogik 的資料完整性功能可以在網路意外中斷時透過 MX-AOPC UA Suite 即時監控資料。

透過行動通訊網路遠端存取行動通訊 I/O

大多數運營商提供動態和私有 IP 位址的 SIM 卡，私有 IP 卡雖然較便宜，不過無法直接存取雲端。Moxa 的行動通訊資料存取軟體透過在行動通訊型號和雲端之間建立特殊的資料路由來實現這種連接。

只需要公共 IP 位址即可使用 Moxa 的行動通訊資料存取軟體，讓您輕鬆更新內部暫存器值、變更輸出通道狀態以及修改連接至裝置的裝置配置，所有這些都透過雲端進行。



規格

Memory

microSD Slot	Up to 32 GB (SD 2.0 compatible) Note: For units operating in extreme temperatures, industrial-grade, wide-temperature microSD cards are required.
--------------	--

Control Logic

Language	Click&Go Plus
----------	---------------

Input/Output Interface

Digital Input Channels	ioLogik 2512 Series: 8
Configurable DIO Channels (by software)	ioLogik 2512 Series: 8 ioLogik 2542 Series: 12
Analog Input Channels	ioLogik 2542 Series: 4
Buttons	Reset button
Isolation	3k VDC or 2k Vrms

Digital Inputs

Connector	Screw-fastened Euroblock terminal
Sensor Type	Dry contact Wet contact (NPN or PNP)
I/O Mode	DI or event counter
Dry Contact	On: short to GND Off: open
Wet Contact (DI to COM)	On: 10 to 30 VDC Off: 0 to 3 VDC
Counter Frequency	2.5 kHz
Digital Filtering Time Interval	Software configurable
Points per COM	ioLogik 2512 Series: 8 channels ioLogik 2542 Series: 6 channels

Digital Outputs

Connector	Screw-fastened Euroblock terminal
I/O Type	Sink
I/O Mode	DO or pulse output
Current Rating	500 mA per channel
Pulse Output Frequency	5 kHz (max.)
DIO Output Leakage Current	< 1 mA @ 30 VDC
Over-Current Protection	1.5 A per channel @ 25°C
Over-Temperature Shutdown	175°C (typical), 150°C (min.)
Over-Voltage Protection	45 VDC (typical)

Analog Inputs

Connector	Screw-fastened Euroblock terminal
I/O Mode	Voltage/Current
I/O Type	Differential
Resolution	16 bits
Input Range	±10 VDC 0 to 10 VDC 0 to 20 mA 4 to 20 mA 4 to 20 mA (with burn-out detection)
Accuracy	ioLogik 2542 Series (except -T models): ±0.1% FSR @ 25°C ±0.3% FSR @ -10 to 60°C ioLogik 2542-T ±0.1% FSR @ 25°C ±0.3% FSR @ -10 to 60°C ±0.5% FSR @ -40 to 75°C ioLogik 2542 HSPA-T/WL1-EU-T/WL1-JP-T/WL1-US-T: ±0.1% FSR @ 25°C ±0.3% FSR @ -10 to 60°C ±0.5% FSR @ -30 to 70°C ±0.5% FSR @ -30 to 70°C
Sampling Rate	All channels: 400 samples/sec Per channel: 100 samples/sec
Built-in Resistor for Current Input	120 ohms
Input Impedance	1 mega-ohms (min.)
Over-Voltage Protection	-25 to +30 VDC (power on) -35 to +35 VDC (power off)

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	4, 1 MAC address (Ethernet bypass)
Magnetic Isolation Protection	1.5 kV (built-in)

Ethernet Software Features

Configuration Options	Web Console (HTTP/HTTPS), Windows Utility (IOxpress)
Industrial Protocols	CGI commands, Modbus TCP Client (Master), Modbus TCP Server (Slave), Moxa AOPC (Active Tag), MXIO Library, RESTful API, SNMPv1/v2c/v3, SNMPv1/v2c Trap
Management	ioLogik 2500 Series -HSPA/Ethernet models: BOOTP, IPv4, SMTP, TCP/IP, DHCP Client ioLogik 2500 Series -WL1 models: BOOTP, IPv4, SMTP, TCP/IP
MIB	Device Settings MIB
Security	HTTPS/SSL
Time Management	SNTP

LED Interface

LED Indicators	ioLogik 2512/2542 Series: PWR, RDY, Serial port (P1, P2), Ethernet port (L1 to L4), I/O Channel Status (0 to 15) ioLogik 2500 Series -HSPA/-WL1 models: PWR, RDY, Serial port (P1, P2), Ethernet port (L1 to L4), I/O Channel Status (0 to 15), Wireless connection, Signal Status
----------------	---

Serial Interface

Baudrate	300, 1200, 1800, 2400, 4800, 7200, 9600, 19200, 38400, 57600, 115200 bps
Connector	8-pin RJ45
Data Bits	5, 6, 7, 8
Flow Control	None, RTS/CTS, XON/XOFF
No. of Ports	2
Parity	None, Even, Odd
Serial Standards	RS-232, RS-422, RS-485
Stop Bits	1, 2

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

Serial Software Features

Industrial Protocols	Modbus RTU Master
----------------------	-------------------

Cellular Interface

Cellular Standards	GSM, EDGE, GPRS, UMTS, HSPA
Band Options	ioLogik 2500 Series -HSPA models: UMTS/HSPA+ 800/850/900/1900/2100 MHz ioLogik 2500 Series -HSPA models: Universal quad-band GSM/GPRS/EDGE 850/900/1800/1900 MHz
SIM Control Voltage	1.8 V, 3 V
SIM Format	Mini SIM
Cellular Antenna Connectors	ioLogik 2500 Series -HSPA models: 1 SMA female

Security Functions

IPsec VPN	ioLogik 2500 Series -HSPA models: DES, 3DES, AES-128, AES-192, AES-256
-----------	--

WLAN Interface

WLAN Standards	802.11b/g 802.11i Wireless Security
Modulation Type	DSSS OFDM
Frequency Band for US (20 MHz operating channels)	2.412 to 2.462 GHz (11 channels)
Frequency Band for EU (20 MHz operating channels)	2.412 to 2.472 GHz (13 channels)
Frequency Band for JP (20 MHz operating channels)	2.412 to 2.484 GHz (14 channels)
Wireless Security	WEP encryption (64-bit and 128-bit) WPA/WPA2-Personal
Transmission Rate	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
Transmitter Power for 802.11b	18±1.5 dBm @ 1 to 11 Mbps
Transmitter Power for 802.11g	18±1.5 dBm @ 6 to 24 Mbps 17±1.5 dBm @ 36 Mbps 16±1.5 dBm @ 48 Mbps 16±1.5 dBm @ 54 Mbps
Receiver Sensitivity for 802.11b (measured at 2.437 GHz)	Typ. -97 dBm @ 1 Mbps Typ. -94 dBm @ 2 Mbps Typ. -92 dBm @ 5.5 Mbps Typ. -90 dBm @ 11 Mbps
Receiver Sensitivity for 802.11g (measured at 2.437 GHz)	Typ. -88 dBm @ 6 to 24 Mbps Typ. -85 dBm @ 36 Mbps Typ. -75 dBm @ 48 Mbps Typ. -70 dBm @ 54 Mbps
WLAN Antenna Connector	ioLogik 2512-WL1/2542-WL1 Series: 1 RP-SMA male

Platform

Real-time Clock (RTC)	Real-time clock with capacitor backup
-----------------------	---------------------------------------

Power Parameters

Power Connector	Screw-fastened Euroblock terminal
No. of Power Inputs	1
Input Voltage	12 to 48 VDC
Power Consumption	ioLogik 2512 Series: 254 mA @ 24 VDC, 529 mA @ 12 VDC, 133 mA @ 48VDC ioLogik 2512-HSPA Series: 352 mA @ 24 VDC, 728 mA @ 12 VDC, 187 mA @ 48 VDC ioLogik 2512-WL1 Series: 354 mA @ 24 VDC, 735 mA @ 12 VDC, 189 mA @ 48 VDC ioLogik 2542 Series: 281 mA @ 24 VDC, 589 mA @ 12 VDC, 144 mA @ 48 VDC ioLogik 2542-HSPA Series: 311 mA @ 24 VDC, 649 mA @ 12 VDC, 166 mA @ 48 VDC ioLogik 2542-WL1 Series: 380 mA @ 24 VDC, 797 mA @ 12 VDC, 203 mA @ 48 VDC

Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	61 x 157 x 115 mm (2.4 x 6.18 x 4.53 in)
Weight	1,265 g (2.79 lb)

Installation	DIN-rail mounting, Wall mounting (with optional kit)
Wiring	I/O cable, 16 to 26 AWG Power cable, 12 to 24 AWG

Environmental Limits

Operating Temperature	Standard Models: -10 to 60°C (14 to 140°F) HSPA/WL1 -T models: -30 to 70°C (-22 to 158°F) ioLogik 2512-T/2542-T: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Altitude	2000 m

Standards and Certifications

EMC	EN 61000-6-2/-6-4
EMI	CISPR 32, FCC Part 15B Class A
EMS	All models: IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV IEC 61000-4-6 CS: 3 V IEC 61000-4-8 ioLogik 2500 Series: IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-5 Surge: Power: 1 kV ioLogik 2500 Series -HSPA/-WL1 models: IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-5 Surge: Power: 2 kV
Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Hazardous Locations	ATEX, Class I Division 2
Safety	UL 508
Radio	EN 301 489-1/17, NCC (-WL models)
Radio Frequency	EN 301 908, EN 301 489-24, EN 301 511
WLAN Standards	EN 300328 EN 301893

Declaration

Green Product	RoHS, CRoHS, WEEE
---------------	-------------------

MTBF

Time	ioLogik 2512 Series: 467,032 hrs ioLogik 2542 Series: 375,439 hrs ioLogik 2512-HSPA Series: 378,154 hrs ioLogik 2542-HSPA Series: 378,154 hrs ioLogik 2512-WL1 Series: 400,469 hrs ioLogik 2542-WL1 Series: 331,222 hrs
Standards	Telcordia SR332

Warranty

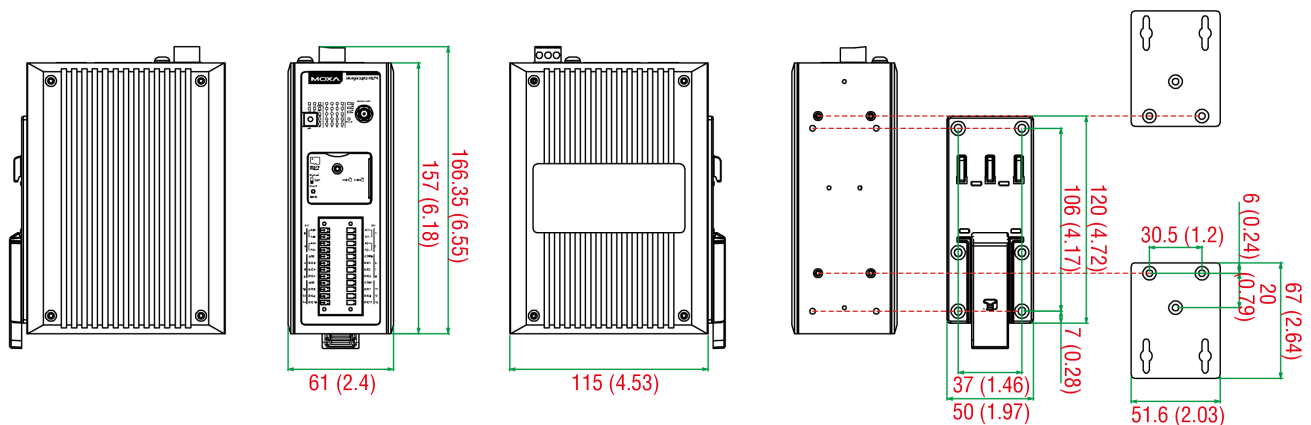
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x ioLogik 2500 Series remote I/O
Cable	2 x RJ45-to-DB9 console cable
Installation Kit	1 x cable holder with screw 6 x cap, plastic, for RJ45 port
Antenna	1 x UMTS/HSPA (-HSPA models) 1 x Wi-Fi (-WL1 models)
Documentation	1 x quick installation guide 1 x warranty card

尺寸

單位：公釐 (英吋)



訂購資訊

Model Name	Input/Output Interface	Wireless Standard	Operating Temp.
ioLogik 2512	8 x DI, 8 x DIO	-	-10 to 60°C
ioLogik 2512-T	8 x DI, 8 x DIO	-	-40 to 75°C
ioLogik 2512-HSPA	8 x DI, 8 x DIO	UMTS/HSPA+: five-band 800/850/900/1900/2100 MHz GSM/GPRS/EDGE: quad-band 850/900/1800/1900 MHz	-10 to 60°C
ioLogik 2512-HSPA-T	8 x DI, 8 x DIO	UMTS/HSPA+: five-band 800/850/900/1900/2100 MHz GSM/GPRS/EDGE: quad-band 850/900/1800/1900 MHz	-30 to 70°C
ioLogik 2512-WL1-EU	8 x DI, 8 x DIO	IEEE 802.11b/g for wireless LAN	-10 to 60°C
ioLogik 2512-WL1-EU-T	8 x DI, 8 x DIO	IEEE 802.11b/g for wireless LAN	-30 to 70°C
ioLogik 2512-WL1-US	8 x DI, 8 x DIO	IEEE 802.11b/g for wireless LAN	-10 to 60°C
ioLogik 2512-WL1-US-T	8 x DI, 8 x DIO	IEEE 802.11b/g for wireless LAN	-30 to 70°C
ioLogik 2512-WL1-JP	8 x DI, 8 x DIO	IEEE 802.11b/g for wireless LAN	-10 to 60°C
ioLogik 2512-WL1-JP-T	8 x DI, 8 x DIO	IEEE 802.11b/g for wireless LAN	-30 to 70°C
ioLogik 2542	4 x AI, 12 x DIO	-	-10 to 60°C

Model Name	Input/Output Interface	Wireless Standard	Operating Temp.
ioLogik 2542-T	4 x AI, 12 x DIO	–	-40 to 75°C
ioLogik 2542-HSPA	4 x AI, 12 x DIO	UMTS/HSPA+: five-band 800/850/ 900/1900/2100 MHz GSM/GPRS/EDGE: quad-band 850/ 900/1800/1900 MHz	-10 to 60°C
ioLogik 2542-HSPA-T	4 x AI, 12 x DIO	UMTS/HSPA+: five-band 800/850/ 900/1900/2100 MHz GSM/GPRS/EDGE: quad-band 850/ 900/1800/1900 MHz	-30 to 70°C
ioLogik 2542-WL1-EU	4 x AI, 12 x DIO	IEEE 802.11b/g for wireless LAN	-10 to 60°C
ioLogik 2542-WL1-EU-T	4 x AI, 12 x DIO	IEEE 802.11b/g for wireless LAN	-30 to 70°C
ioLogik 2542-WL1-US	4 x AI, 12 x DIO	IEEE 802.11b/g for wireless LAN	-10 to 60°C
ioLogik 2542-WL1-US-T	4 x AI, 12 x DIO	IEEE 802.11b/g for wireless LAN	-30 to 70°C
ioLogik 2542-WL1-JP	4 x AI, 12 x DIO	IEEE 802.11b/g for wireless LAN	-10 to 60°C
ioLogik 2542-WL1-JP-T	4 x AI, 12 x DIO	IEEE 802.11b/g for wireless LAN	-30 to 70°C

配件 (選購)

Software

MX-AOPC UA Server	OPC UA Server software for converting fieldbus to the OPC UA standard
-------------------	---

Wall-Mounting Kits

WK-51-01	Wall mounting kit with 2 plates (51.6 x 67 x 2 mm) and 6 screws
----------	---

© Moxa Inc. 版權所有.2021 年 6 月 08 日更新。

未經 Moxa Inc. 明確書面許可，不得以任何方式複製或使用本文件及其任何部分。產品規格如有變更，恕不另行通知。請至本公司官網了解最新的產品資訊。