

Industrial Networking Solutions



- Industrial Ethernet
- Serial Connectivity and Networking
- Industrial Wireless
- Embedded Computing



www.moxa.com

MOXA®

Product Selection Guides

Industrial Ethernet Switches

Managed Ethernet Switches	20
Unmanaged Ethernet Switches	22

Industry-specific Ethernet Switches

M12 Ethernet Switches	24
IEC 61850-3 Rackmount Ethernet Switches	25

Industrial I/O

Stand-alone Type I/Os	26
Modular Type I/Os	26
Modular Remote I/O Selection Guide	27

Video Networking Solutions

Video Networking Products	28
-------------------------------------	----

Terminal Servers

NPort® 6000 Terminal Servers	29
CN2600 Terminal Servers	31

Serial Device Servers

Combo Switch / Serial Device Server	33
General-purpose Device Servers	34
Industrial-grade Device Servers	38
Embedded Device Servers	39

Ethernet Fieldbus Gateways

Ethernet Fieldbus Gateways	40
--------------------------------------	----

Multiport Serial Boards

PCI Express Serial Boards	42
Universal PCI Serial Boards	43
Fiber Optic Serial Boards	45
ISA Serial Boards	46
PC/104 Modules	48
PC/104-Plus Modules	49

Industrial USB

USB-to-Serial Converters	50
USB Hubs	52

Media Converters

Chassis Media Converters	53
Serial-to-Fiber Media Converters	54
Serial Converters and Repeaters	55
Ethernet-to-Fiber Media Converters	56

WLAN & Cellular Solutions

Industrial AP/Bridge/Client Solutions	57
Wireless Serial Device Servers	58
Cellular Routers and IP Gateways	59
Cellular IP and GSM/GPRS Modems	60

Embedded Computers for Communication

Wallmount Computers	61
Rackmount Computers	64
Module/Board Computers	66

Embedded Computers for Automation

DIN-Rail Computers	67
------------------------------	----

Wireless Embedded Computers

RISC-based WLAN Computers	68
Cellular Computers	69

3

Product Selection Guides



Managed Ethernet Switches

Managed Rackmount Switches

Managed DIN-Rail Switches



	IKS-6726	IKS-6726-PoE	EDS-828	EDS-728	EDS-608	EDS-G509	EDS-518A	EDS-510A
Supported Modules								
Gigabit Ethernet Modules	✓	✓	✓	✓	---	---	---	---
Fast Ethernet Modules	✓	✓	✓	✓	✓	---	---	---
SFP Gigabit Ethernet Modules	✓	✓	✓	✓	---	✓	✓	✓
SFP Fast Ethernet Modules	✓	✓	---	---	---	✓	---	---
Number of Ports								
Max. Number of Ports	26	26	28	28	8	9	18	10
Gigabit Ethernet, 10/100/1000 Mbps	up to 2	up to 2	up to 4	up to 4	---	9	2	3
Fast Ethernet, 10/100 Mbps	up to 24	up to 24	up to 24	up to 24	8	---	16	7
Available Power Supplies								
3.3 VDC	---	---	---	---	---	---	---	---
24 VDC	✓	✓	✓	✓	---	---	✓	✓
24 VAC	---	---	---	---	---	---	---	---
48 VDC	✓	✓	---	---	---	---	---	---
12/24/48 VDC	---	---	---	---	✓	✓	---	---
88-300 VDC or 85-264 VAC, Isolated	✓	✓	---	---	---	---	---	---
Installation Options								
DIN-Rail Mounting	---	---	✓	✓	✓	✓	✓	✓
Panel Mounting	---	---	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit
Rack Mounting	✓	✓	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit
Supported Operating Temperatures								
0 to 60°C	---	---	✓	✓	✓	✓	✓	✓
-10 to 60°C	---	---	---	---	---	---	---	---
-40 to 75°C	✓	✓	---	---	✓	✓	✓	✓
Redundancy and Backup Options								
Turbo Ring (Recovery Time < 20 ms)	✓	✓	✓	✓	✓	✓	✓	✓
STP/RSTP	✓	✓	✓	✓	✓	✓	✓	✓
Automatic Backup Configurator (ABC-01)	✓	✓	✓	✓	✓	✓	✓	✓
Network Management and Control								
Layer 3 Switching	---	---	✓	---	---	---	---	---
IPv6	✓	✓	---	✓	✓	✓	✓	✓
DHCP Option 66/67/82	✓	✓	✓	✓	✓	✓	✓	✓
IEEE 1588 PTP	✓	✓	✓	✓	✓	✓	✓	✓
LLDP	✓	✓	✓	✓	✓	✓	✓	✓
Modbus/TCP	✓	✓	✓	✓	✓	✓	✓	✓
IGMP/GMRP	✓	✓	✓	✓	✓	✓	✓	✓
Port Trunking	✓	✓	✓	✓	✓	✓	✓	✓
IEEE 802.1X	✓	✓	✓	✓	✓	✓	✓	✓
Port Lock	✓	✓	✓	✓	✓	✓	✓	✓
SNMP/RMON	✓	✓	✓	✓	✓	✓	✓	✓
VLAN	✓	✓	✓	✓	✓	✓	✓	✓
QoS	✓	✓	✓	✓	✓	✓	✓	✓
Relay Warning	✓	✓	✓	✓	✓	✓	✓	✓
Regulatory Approvals								
CE/FCC	✓	✓	✓	✓	✓	✓	✓	✓
UL/cUL 60950-1	Pending	Pending	Pending	Pending	---	---	✓	✓
UL508	---	---	Pending	Pending	Pending	Pending	✓	✓
UL/cUL Class I, Div. 2; ATEX Class I, Zone 2	---	---	Pending	Pending	Pending	Pending	Pending	✓
DNV/GL	Pending	Pending	Pending	Pending	Pending	Pending	✓	✓
NEMA TS2	✓	✓	---	---	---	---	---	---
EN50155/EN50121-4	✓	✓	---	---	---	---	---	---

3

Industrial Ethernet Switches > Managed Ethernet Switches

Managed Ethernet Switches

Managed DIN-Rail Switches










	EDS-505A	EDS-508A	EDS-516A	EDS-405A	EDS-408A	EDS-P510	EOM-104
Supported Modules							
Gigabit Ethernet Modules	---	---	---	---	---	---	---
Fast Ethernet Modules	---	---	---	---	---	---	---
SFP Gigabit Ethernet Modules	---	---	---	---	---	✓	---
SFP Fast Ethernet Modules	---	---	---	---	---	✓	---
Number of Ports							
Max. Number of Ports	5	8	16	5	8	10	4
Gigabit Ethernet, 10/100/1000 Mbps	---	---	---	---	---	3	---
Fast Ethernet, 10/100 Mbps	5	8	16	5	8	7 (4 PoE)	4
Available Power Supplies							
3.3 VDC	---	---	---	---	---	---	✓
24 VDC	✓	✓	✓	✓	✓	---	---
24 VAC	---	---	---	---	---	---	---
48 VDC	---	---	---	---	---	✓	---
12/24/48 VDC	---	---	---	---	---	---	---
88-300 VDC or 85-264 VAC, Isolated	---	---	---	---	---	---	---
Installation Options							
DIN-Rail Mounting	✓	✓	✓	✓	✓	✓	---
Panel Mounting	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	---
Rack Mounting	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	---
Supported Operating Temperatures							
0 to 60°C	✓	✓	✓	✓	✓	✓	---
-10 to 60°C	---	---	---	---	---	---	---
-40 to 75°C	✓	✓	✓	✓	✓	✓	✓
Redundancy and Backup Options							
Turbo Ring (Recovery Time < 20 ms)	✓	✓	✓	✓	✓	✓	✓
STP/RSTP	✓	✓	✓	✓	✓	✓	✓
Automatic Backup Configurator (ABC-01)	✓	✓	✓	✓	✓	✓	---
Network Management and Control							
Layer 3 Switching	---	---	---	---	---	---	---
IPv6	✓	✓	✓	✓	✓	✓	---
DHCP Option 66/67/82	✓	✓	✓	✓	✓	✓	---
IEEE 1588 PTP	✓	✓	✓	---	---	✓	---
LLDP	✓	✓	✓	✓	✓	✓	---
Modbus/TCP	✓	✓	✓	✓	✓	✓	---
IGMP/GMRP	✓	✓	✓	---	---	✓	---
Port Trunking	✓	✓	✓	---	---	✓	---
IEEE 802.1X	✓	✓	✓	---	---	✓	---
Port Lock	✓	✓	✓	---	---	✓	---
SNMP/RMON	✓	✓	✓	✓	✓	✓	✓
VLAN	✓	✓	✓	✓	✓	✓	---
QoS	✓	✓	✓	✓	✓	✓	---
Relay Warning	✓	✓	✓	✓	✓	✓	---
Regulatory Approvals							
CE/FCC	✓	✓	✓	✓	✓	✓	✓
UL/cUL 60950-1	✓	✓	✓	✓	✓	---	---
UL508	✓	✓	✓	✓	✓	Pending	---
UL/cUL Class I, Div. 2; ATEX Class I, Zone 2	✓	✓	Pending	✓	✓	Pending	---
DNV/GL	✓	✓	✓	✓	✓	Pending	---
NEMA TS2	---	---	---	---	---	---	---
EN50155/EN50121-4	---	---	---	---	---	---	---

3

Industrial Ethernet Switches > Managed Ethernet Switches

Unmanaged Ethernet Switches

	Unmanaged Rackmount Switches		Unmanaged DIN-Rail Switches				
							
	IKS-6324	EDS-G205	EDS-G308	EDS-305	EDS-308	EDS-309	EDS-316
Supported Modules							
Gigabit Ethernet Modules	√	---	---	---	---	---	---
Fast Ethernet Modules	√	---	---	---	---	---	---
SFP Gigabit Ethernet Modules	√	---	√	---	---	---	---
SFP Fast Ethernet Modules	---	---	√	---	---	---	---
Number of Ports							
Max. Number of Ports	24	5	8	5	8	9	16
Gigabit Ethernet, 10/100/1000 Mbps	Up to 2	5	8	---	---	---	---
Fast Ethernet, 10/100 Mbps	Up to 24	---	---	5	8	9	16
Available Power Supplies							
24 VDC	---	---	---	√	√	√	√
24 VAC	---	---	---	---	---	---	---
48 VDC	---	---	---	---	---	---	---
12/24/48 VDC	√	√	√	---	---	---	---
88-300 VDC or 85-264 VAC, isolated	√	---	---	---	---	---	---
Installation Options							
DIN-Rail Mounting	---	√	√	√	√	√	√
Panel Mounting	---	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit
Rack Mounting	√	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit
Supported Operating Temperatures							
0 to 60°C	---	√	√	√	√	√	√
-10 to 60°C	---	---	---	---	---	---	---
-40 to 75°C	√	√	√	√	√	√	√
Regulatory Approvals							
CE/FCC	√	√	√	√	√	√	√
UL/cUL 60950-1	Pending	---	---	√	√	√	√
UL508	---	Pending	Pending	√	√	√	√
UL/cUL Class I, Div. 2; ATEX Class I, Zone 2	---	Pending	Pending	√	√	√	Pending
DNV/GL	Pending	Pending	Pending	√	√	√	√
NEMA TS2	√	---	---	---	---	---	---
EN50155/EN50121-4	√	---	---	---	---	---	---

3

Industrial Ethernet Switches > Unmanaged Ethernet Switches

Unmanaged Ethernet Switches

Unmanaged DIN-Rail Switches



	EDS-205A	EDS-208A	EDS-205	EDS-208	EDS-P308
Supported Modules					
Gigabit Ethernet Modules	---	---	---	---	---
Fast Ethernet Modules	---	---	---	---	---
SFP Gigabit Ethernet Modules	---	---	---	---	---
SFP Fast Ethernet Modules	---	---	---	---	---
Number of Ports					
Max. Number of Ports	5	8	5	8	8
Gigabit Ethernet, 10/100/1000 Mbps	---	---	---	---	---
Fast Ethernet, 10/100 Mbps	5	8	5	8	8 (4 PoE)
Available Power Supplies					
24 VDC	---	---	√	√	---
24 VAC	√	√	√	√	---
48 VDC	---	---	---	---	√
12/24/48 VDC	√	√	---	---	---
88-300 VDC or 85-264 VAC, isolated	---	---	---	---	---
Installation Options					
DIN-Rail Mounting	√	√	√	√	√
Panel Mounting	w/ optional kit	w/ optional kit	---	---	w/ optional kit
Rack Mounting	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit
Supported Operating Temperatures					
0 to 60°C	---	---	---	---	√
-10 to 60°C	√	√	√	√	---
-40 to 75°C	√	√	---	---	√
Regulatory Approvals					
CE/FCC	√	√	√	√	√
UL/cUL 60950-1	---	---	---	√	---
UL508	√	√	√	√	√
UL/cUL Class I, Div. 2; ATEX Class I, Zone 2	Pending	Pending	---	---	Pending
DNV/GL	Pending	Pending	---	---	Pending
NEMA TS2	---	---	---	---	---
EN50155/EN50121-4	---	---	---	---	---

3

Industrial Ethernet Switches > Unmanaged Ethernet Switches

M12 Ethernet Switches



	TN-5508 Series	TN-5510 Series	TN-5516 Series	TN-5518 Series	TN-5308 Series	TN-5308-PoE Series	EDS-305-M12 Series
Number of Ports							
Max. Number of Ports	8	10	16	18	8	8	5
Gigabit Ethernet, 10/100/1000 Mbps	---	2	---	2	---	---	---
Fast Ethernet, 10/100 Mbps	8	8	16	16	8	8 (4 PoE)	5
Power Supply							
12/24/36/48 VDC	✓	✓	✓	✓	✓ (LV Model)	---	---
72/96/110 VDC	✓	✓	✓	✓	✓ (MV Model)	---	---
80-300 VDC, 85-264 VAC	✓	✓	✓	✓	---	---	---
24 VDC	---	---	---	---	---	---	✓
48 VDC	---	---	---	---	---	✓	---
24 VAC	---	---	---	---	---	---	✓
Installation Options							
DIN-Rail Mounting	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit	w/ optional kit
Panel Mounting	✓	✓	✓	✓	✓	✓	✓
Operating Temperature							
0 to 60°C	✓	✓	✓	✓	✓	✓	✓
-40 to 75°C	✓	✓	✓	✓	✓	✓	✓
Redundancy and Backup Options							
Turbo Ring (Recovery Time < 20 ms)	✓	✓	✓	✓	---	---	---
STP/RSTP	✓	✓	✓	✓	---	---	---
Network Management and Control							
IPv6	✓	✓	✓	✓	---	---	---
DHCP Option 66/67/82	✓	✓	✓	✓	---	---	---
IEEE 1588 PTP	✓	✓	✓	✓	---	---	---
LLDP	✓	✓	✓	✓	---	---	---
Modbus/TCP	✓	✓	✓	✓	---	---	---
IGMP/GMRP	✓	✓	✓	✓	---	---	---
Port Trunking	✓	✓	✓	✓	---	---	---
IEEE 802.1X	✓	✓	✓	✓	---	---	---
Port Lock	✓	✓	✓	✓	---	---	---
SNMP/RMON	✓	✓	✓	✓	---	---	---
VLAN	✓	✓	✓	✓	---	---	---
QoS	✓	✓	✓	✓	---	---	---
Relay Warning	✓	✓	✓	✓	---	---	---
Regulatory Approvals							
CE/FCC	✓	✓	✓	✓	✓	✓	✓
UL508	Pending	Pending	Pending	Pending	Pending	Pending	✓
Traffic Control Systems: NEMA TS2 e1	Pending Pending	Pending Pending	Pending Pending	Pending Pending	Pending Pending	Pending Pending	---
Railway Applications: EN50155 EN50121-3-2 EN50121-4	Pending Pending Pending	Pending Pending Pending	Pending Pending Pending	Pending Pending Pending	Pending Pending Pending	Pending Pending Pending	✓ Pending Pending
DNV/GL	---	---	---	---	---	---	Pending

3

Industry-specific Ethernet Switches > M12 Ethernet Switches

IEC 61850-3 Rackmount Ethernet Switches



	PT-7828	PT-7728	PT-7710	PT-7324
Supported Modules				
Gigabit Ethernet Modules	√	√	√	√
Fast Ethernet Modules	√	√	√	√
SFP Gigabit Ethernet Modules	√	√	√	√
SFP Fast Ethernet Modules	√	√	√	---
Number of Ports				
Max. Number of Ports	28	28	10	24
Gigabit Ethernet, 10/100/1000 Mbps	Up to 4	Up to 4	Up to 2	Up to 2
Fast Ethernet, 10/100 Mbps	Up to 24	Up to 24	Up to 10	Up to 24
Power Supply				
24 VDC, isolated	√	√	---	---
48 VDC, isolated	√	√	---	---
12/24/48 VDC	---	---	√	√
88-300 VDC or 85-264 VAC, isolated	√	√	√	√
Installation Options				
Rack Mounting	√	√	√	√
Panel Mounting	---	---	√	---
Operating Temperature				
-40 to 85°C	√	√	√	√
Redundancy and Backup Options				
Turbo Ring (Recovery Time < 20 ms)	√	√	√	---
STP/RSTP	√	√	√	---
Automatic Backup Configurator (ABC-01)	√	√	√	---
Network Management and Control				
Layer 3 Switching	√	---	---	---
IPv6	---	√	√	---
DHCP Option 66/67/82	√	√	√	---
IEEE 1588 PTP	√	√	√	---
LLDP	√	√	√	---
Modbus/TCP	√	√	√	---
IGMP/GMRP	√	√	√	---
Port Trunking	√	√	√	---
IEEE 802.1X	√	√	√	---
Port Lock	√	√	√	---
SNMP/RMON	√	√	√	---
VLAN	√	√	√	√
QoS	√	√	√	√
Relay Warning	√	√	√	√
Regulatory Approvals				
CE/FCC	√	√	√	√
UL/cUL 60950-1	Pending	Pending	Pending	Pending
IEC 61850-3 (Power Substation)	√	√	√	√
IEEE 1613 (Power Substation)	√	√	√	√
NEMA TS2 (Traffic Control System)	√	√	√	√
EN50155/EN50121-4 (Railway Applications)	√	√	√	√
DNV/GL	Pending	Pending	Pending	Pending

3

Industry-specific Ethernet Switches > IEC 61850-3 Rackmount Ethernet Switches

Stand-alone Type I/Os



Model	ioLogik W5340	ioLogik E2210	ioLogik E2212	ioLogik E2214	ioLogik E2240	ioLogik E2242
Category	Cellular GPRS I/O	Active Ethernet I/O	Active Ethernet I/O	Active Ethernet I/O	Active Ethernet I/O	Active Ethernet I/O
Comm. Interface	GPRS, 10/100M Ethernet	10/100M Ethernet	10/100M Ethernet	10/100M Ethernet	10/100M Ethernet	10/100M Ethernet
I/O Combination	4 AIs, 8 DIos, 2 Relays	12 DIIs, 8 DOs	8 DIIs, 8 DOs, 4 DIOs	6 DIIs, 6 Relays	8 AIs, 2 AOIs	4 AIs, 12 DIos
Control Protocol	Modbus/TCP, SNMP, OPC	Modbus/TCP, SNMP, OPC, Http-CGI	Modbus/TCP, SNMP, OPC, Http-CGI	Modbus/TCP, SNMP, OPC, Http-CGI	Modbus/TCP, SNMP, OPC, Http-CGI	Modbus/TCP, SNMP, OPC, Http-CGI
Local Intelligence	Click&Go	Click&Go	Click&Go	Click&Go	Click&Go	Click&Go
Alarm Function	SMS, E-mail, SNMP Traps, TCP/UDP Messaging	E-mail, SNMP Traps, TCP/UDP Messaging	E-mail, SNMP Traps, TCP/UDP Messaging	E-mail, SNMP Traps, TCP/UDP Messaging	E-mail, SNMP Traps, TCP/UDP Messaging	E-mail, SNMP Traps, TCP/UDP Messaging



Model	ioLogik E2260	ioLogik E2262	ioLogik R2110	ioLogik R2140	ioMirror E3210
Category	Active Ethernet I/O	Active Ethernet I/O	RS-485 I/O	RS-485 I/O	Peer-to-Peer I/O
Comm. Interface	10/100M Ethernet	10/100M Ethernet	RS-485	RS-485	10/100M Ethernet
I/O Combination	4 DOIs, 6 RTDs	4 DOIs, 8 TCs	12 DIIs, 8 DOs	8 AIs, 2 AOIs	8 DIIs, 8 DOs
Control Protocol	Modbus/TCP, SNMP, OPC, Http-CGI	Modbus/TCP, SNMP, OPC, Http-CGI	Modbus/RTU	Modbus/RTU	---
Local Intelligence	Click&Go	Click&Go	---	---	---
Alarm Function	E-mail, SNMP Traps, TCP/UDP Messaging	E-mail, SNMP Traps, TCP/UDP Messaging	---	---	Alarm Channel with LED for Conn. Status

Modular Type I/Os



Model	ioLogik E4200	NA-4010	NA-4020	NA-4021
Category	Modular Active Ethernet I/O	Modular Ethernet I/O	Modular Serial I/O	Modular Serial I/O
Comm. Interface	Dual 10/100M Ethernet	10/100M Ethernet	RS-485	RS-232
Max. Expansion Capacity	16 slices	31 slices	31 slices	31 slices
Control Protocol	Modbus/TCP, SNMP, OPC	Modbus/TCP	Modbus/RTU	Modbus/RTU
Local Intelligence	Click&Go	---	---	---
Alarm Function	SMS, E-mail, SNMP Traps, TCP/UDP Messaging	---	---	---
SMS/GPRS Connectivity	Yes, with an ext. modem	---	---	---

Modular Remote I/O Selection Guide



DC-Digital Inputs						AC-Digital Inputs	
Specs	Model	M-1800	M-1801	M-1600	M-1601	M-1450	M-1451
	Channels	8	8	16	16	4	4
	Sink/Source	Sink	Source	Sink	Source	---	---
	Connector	RTB	RTB	20-pin	20-pin	RTB	RTB
	Voltage	24 VDC	24 VDC	24 VDC	24 VDC	110 VAC	220 VAC
	Isolation	Optical isolation					



Digital Outputs						
Specs	Model	M-2800	M-2801	M-2600	M-2601	M-2450
	Channels	8	8	16	16	4
	Sink/Source	Sink	Source	Sink	Source	Relay
	Connector	RTB	RTB	20-pin	20-pin	RTB
	Voltage	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC
	Current	0.5 A	0.5 A	0.3 A	0.3A	0.5 A
	Isolation	Optical isolation				



Analog Inputs					
Specs	Model	M-3802	M-3810	M-6200	M-6201
	Channels	8	8	2	2
	Current	4 to 20 mA	---	---	---
	Voltage	---	0 to 10V	---	---
	Connector	RTB	RTB	RTB	RTB
	Resolution	12-bit	12-bit	---	---
	Isolation	Optical isolation			
	Sensor Input	---	---	RTD(ohm)	Thermo-couple (mV)



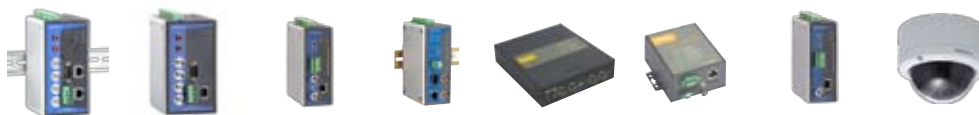
Analog Outputs			
Specs	Model	M-4402	M-4410
	Channels	4	4
	Current	4 to 20 mA	---
	Voltage	---	0 to 10 V
	Connector	RTB	RTB
	Resolution	12-bit	12-bit
	Isolation	Optical isolation	

Power Modules					
Specs	Model	M-7001	M-7002	M-7804	M-7805
	Channels	0	0	8	8
	Voltage	24 VDC	DC: 5, 24, 48 VDC AC: 110/220 VAC	0 VDC	24 VDC
	Purpose	System Power	Field Power	Field Power	Field Power

3

Industrial I/O > Modular Remote I/O Selection Guide

Video Networking Products



	VPort 354	VPort 254	VPort 351	VPort 3310	VPort 2141	VPort 251	VPort D351	VPort 25
Type of Product	Encoder	Encoder	Encoder	Encoder	Encoder	Encoder	Decoder	IP Camera
Form Factor								
Protection Rating	IP30	IP30	IP30	IP30	---	---	IP30	IP66
DIN-Rail Mounting	✓	✓	✓	✓	w/ optional Kit	w/ optional Kit	✓	---
Panel Mounting	w/ optional Kit	w/ optional Kit	w/ optional Kit	w/ optional Kit	✓	✓	w/ optional Kit	---
Surface/Ceiling Mounting	---	---	---	---	---	---	---	✓
Audio/Video Channels								
Video Inputs	4	4	1	1	4	1	0	0
Video Outputs	0	0	1	1	0	0	1	1
Audio Inputs	1	1	1	1	0	1	1	1
Audio Outputs	1	1	1	0	0	1	1	1
Compression Algorithm								
MJPEG	✓	✓	✓	---	✓	✓	✓	✓
MPEG4	✓	✓	✓	✓	---	✓	✓	✓
Video Performance								
QCIF (NTSC: 176 x 120)	30 FPS (max.)	---	---	30 FPS (max.)	30 FPS (max.)	---	---	---
QVGA (NTSC: 320 x 240)	---	30 FPS (max.)	30 FPS (max.)	---	---	30 FPS (max.)	---	30 FPS (max.)
CIF (NTSC: 352 x 240)	30 FPS (max.)	30 FPS (max.)	30 FPS (max.)	30 FPS (max.)	30 FPS (max.)	30 FPS (max.)	---	30 FPS (max.)
VGA (NTSC: 640 x 480)	---	7 FPS (max.)	30 FPS (max.)	10 FPS (max.)	---	30 FPS (max.)	---	30 FPS (max.)
2CIF (NTSC: 704 x 240)	30 FPS (max.)	---	---	---	---	---	---	---
4CIF (NTSC: 704 x 480)	30 FPS (max.)	7 FPS (max.)	30 FPS (max.)	10 FPS (max.)	30 FPS (max.)	30 FPS (max.)	---	30 FPS (max.)
Full D1 (NTSC: 720 x 480)	---	7 FPS (max.)	30 FPS (max.)	---	---	30 FPS (max.)	---	30 FPS (max.)
QCIF (PAL: 176 x 144)	25 FPS (max.)	---	---	25 FPS (max.)	25 FPS (max.)	---	---	---
QVGA (PAL: 320 x 288)	---	25 FPS (max.)	25 FPS (max.)	---	---	25 FPS (max.)	---	25 FPS (max.)
CIF (PAL: 352 x 288)	25 FPS (max.)	25 FPS (max.)	25 FPS (max.)	25 FPS (max.)	25 FPS (max.)	25 FPS (max.)	---	25 FPS (max.)
VGA (PAL: 640 x 576)	---	7 FPS (max.)	25 FPS (max.)	8 FPS (max.)	---	25 FPS (max.)	---	25 FPS (max.)
2CIF (PAL: 704 x 288)	25 FPS (max.)	---	---	---	---	---	---	---
4CIF (PAL: 704 x 576)	25 FPS (max.)	7 FPS (max.)	25 FPS (max.)	8 FPS (max.)	8 FPS (max.)	25 FPS (max.)	---	25 FPS (max.)
Full D1 (PAL: 720 x 576)	---	7 FPS (max.)	25 FPS (max.)	---	---	25 FPS (max.)	---	25 FPS (max.)
Quad View	---	---	---	---	15 FPS (max.)	---	---	---
Network Connections								
10/100BaseT(X) Ports	2	1	1	1	1	1	1	1
100BaseFX Ports	2	1	1	---	---	---	---	---
Number of COM Ports								
PTZ Ports	1	1	1	1	2	1	1	---
RS-232 Console Ports	1	1	1	---	---	1	1	---
Network Management and Control								
Web Browser	✓	✓	✓	✓	✓	✓	✓	✓
SNMP Protocols	v1/v2c/v3	v1/v2c/v3	v1/v2c/v3	v1/v2c/v3	---	v1/v2c/v3	v1/v2c/v3	v1/v2c/v3
RTSP (Real Time Streaming Protocol)	✓	✓	✓	✓	---	✓	---	✓
Multicast (IGMP)	v3	v3	v3	v3	---	v3	---	v3
QoS	✓	✓	✓	---	---	✓	---	✓
UPnP	✓	✓	✓	✓	✓	✓	✓	✓
DDNS	✓	✓	✓	✓	✓	✓	✓	✓
PPPoE	---	---	---	✓	✓	---	---	---
IP Filtering	✓	✓	✓	✓	✓	✓	✓	✓
Power Requirements								
Power Redundancy	✓	✓	✓	✓	---	---	✓	✓
Power Inputs	2	2	2	2	1	1	2	1
Power Outputs	0	0	0	0	1	1	0	0
Power-over-Ethernet (PoE)	---	---	---	---	---	---	---	✓
Alarms								
VMD (Video Motion Detection)	✓	✓	✓	✓	✓	✓	---	✓
Digital Inputs	4	4	2	2	4	1	2	1
Relay (Digital) Outputs	2	2	2	2	4	1	2	1
Alarm Video Recording	✓	---	✓	---	---	---	---	---
Alarm Snapshot Image	✓	✓	✓	✓	✓	✓	---	✓
Supported Operating Temperature Ranges								
0 to 60°C	✓	✓	✓	✓	✓	✓	✓	---
-40 to 50°C	---	---	---	---	---	---	---	✓
-40 to 75°C	✓	✓	✓	✓	---	---	---	---
Regulatory Approvals								
CE/FCC	✓	✓	✓	✓	✓	✓	✓	✓
UL508	Pending	✓	✓	---	---	---	✓	Pending
Class 1, Div 2; ATEX Class 1, Zone 2	Pending	Pending	✓	---	---	---	---	---

3

Video Networking Solutions > Video Networking Products

NPort® 6000 Terminal Servers



	NPort® 6150	NPort® 6250	NPort® 6250-M-SC	NPort® 6250-S-SC	NPort® 6450	NPort® 6610-8	NPort® 6610-8-48V	NPort® 6610-16	NPort® 6610-16-48V
LAN Interface									
10/100BaseT(X) Ports	1 port (8-pin RJ45 connector)								
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
100BaseFX Ports	---	---	1 (multi-mode)	1 (single-mode)	---	---	---	---	---
Expansion Modules									
10/100BaseT(X) (RJ45)	---	---	---	---	✓	✓	✓	✓	✓
Multi-mode Fiber (SC)	---	---	---	---	✓	✓	✓	✓	✓
Single-mode Fiber (SC)	---	---	---	---	✓	✓	✓	✓	✓
GSM/GPRS	---	---	---	---	✓	✓	✓	✓	✓
Modem	---	---	---	---	✓	✓	✓	✓	✓
Serial Interface									
RS-232 Ports	---	---	---	---	---	8	8	16	16
RS-232/422/485 Ports	1	2	2	2	4	---	---	---	---
Connectors	DB9 male	DB9 male	DB9 male	DB9 male	DB9 male	8-pin RJ45	8-pin RJ45	8-pin RJ45	8-pin RJ45
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark								
Flow Control	RTS/CTS, DTR/DSR, XON/XOFF								
Baudrate	50 bps to 921.6 Kbps (supports non-standard baudrates)								
15 KV ESD Protection	✓	✓	✓	✓	✓	✓	✓	✓	✓
2 KV isolation protection	---	---	---	---	---	---	---	---	---
RS-485 Data Direction Control	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®
RS-232 Console Port	✓	✓	✓	✓	✓	✓	✓	✓	✓
Advanced Features									
LCD Panel with 4 push buttons	---	---	---	---	✓	✓	✓	✓	✓
Serial Data Log	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB
Offline Port Buffering	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB
SD Slot	---	✓	✓	✓	✓	✓	✓	✓	✓
Software									
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1/V2c/V3, DDNS, HTTP, SMTP, HTTPS, SSL, SSH, PPPoE, RFC2217, IPv6, IPv4, Turbo Ring, Turbo Ring 2								
Security Protocols	DES, 3DES, AES, SSH, SSL, HTTPS, RADIUS, PAP, CHAP, TACACS+								
Configuration Options	Web Console, Telnet Console, Serial Console, Windows Search Utility								
Driver Support	Windows Driver Manager (for Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded), Linux Real TTY driver (for 2.4.x, 2.6.x), Fixed TTY driver (for SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i)								
Management	SNMP MIB-II								
IP Routing	Static, RIP-I, RIP-II								
Standard Operation Modes	Real COM, TCP Server, TCP Client, UDP, Pair Connection, RFC2217, Terminal, Reverse Telnet, Ethernet Modem, Printer, PPP, Disabled								
Secure Operation Modes	Secure Real COM, Secure TCP Server, Secure TCP Client, Secure Pair Connection, SSH, Reverse SSH								
Terminal Sessions	8 sessions per port								
Physical Characteristics									
Housing	Metal	Metal	Metal	Metal	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)
Weight	700 g	730 g	730 g	730 g	1020 g	3460 g	3460 g	3580 g	3580 g
Dimensions (mm)	67 x 100.4 x 28	77 x 111 x 28	77 x 111 x 28	77 x 111 x 28	158 x 103 x 35	440 x 195 x 44	440 x 195 x 44	440 x 195 x 44	440 x 195 x 44
Environmental Limits									
Operating Temperature	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C
Power Requirements									
Input Voltage	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	100 to 240 VAC	±48 VDC	100 to 240 VAC	±48 VDC
Power Consumption	285 mA @ 12 V 150 mA @ 24 V	333 mA @ 12 V 173 mA @ 24 V	428 mA @ 12 V 219 mA @ 24 V	376 mA @ 12 V 193 mA @ 24 V	730 mA @ 12 V 330 mA @ 24 V	285 mA @ 100 V 190 mA @ 240 V	293 mA @ 48 V	285 mA @ 100 V 190 mA @ 240 V	293 mA @ 48 V
Regulatory Approvals									
EMC	CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A								
Safety	UL (UL60950-1), TÜV (EN60950-1)								
EMS	EN61000-4-2 (ESD), Level 3 EN61000-4-4 (EFT), Level 2 EN61000-4-5 (Surge), Level 2					EN61000-4-2 (ESD), Level 3 EN61000-4-4 (EFT), Level 2 EN61000-4-5 (Surge), Level 3			
Reliability									
Buzzer, RTC, WDT	✓	✓	✓	✓	✓	✓	✓	✓	✓
MTBF	231709 hrs	226128 hrs	225762 hrs	225762 hrs	120354 hrs	135891 hrs	135891 hrs	102373 hrs	102373 hrs
Warranty	5 years (see www.moxa.com/warranty)								

3

Terminal Servers > NPort® 6000 Terminal Servers

NPort® 6000 Terminal Servers

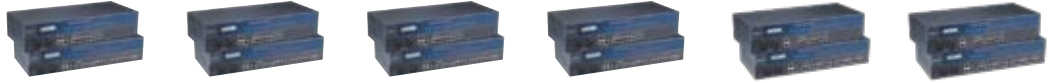


	NPort® 6610-32	NPort® 6610-32-48V	NPort® 6650-8	NPort® 6650-8-48V	NPort® 6650-16	NPort® 6650-16-48V	NPort® 6650-32	NPort® 6650-32-48V
LAN Interface								
10/100BaseT(X) Ports	1 port (8-pin RJ45 connector)							
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
100BaseFX Ports	---	---	---	---	---	---	---	---
Expansion Modules								
10/100BaseT(X) (RJ45)	√	√	√	√	√	√	√	√
Multi-mode Fiber (SC)	√	√	√	√	√	√	√	√
Single-mode Fiber (SC)	√	√	√	√	√	√	√	√
GSM/GPRS	√	√	√	√	√	√	√	√
Modem	√	√	√	√	√	√	√	√
Serial Interface								
RS-232 Ports	32	32	---	---	---	---	---	---
RS-232/422/485 Ports	---	---	8	8	16	16	32	32
Connectors	8-pin RJ45	8-pin RJ45	8-pin RJ45	8-pin RJ45	8-pin RJ45	8-pin RJ45	8-pin RJ45	8-pin RJ45
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark							
Flow Control	RTS/CTS, DTR/DSR, XON/XOFF							
Baudrate	50 bps to 921.6 Kbps (supports non-standard baudrates)							
15 KV ESD Protection	√	√	√	√	√	√	√	√
2 KV isolation protection	---	---	---	---	---	---	---	---
RS-485 Data Direction Control	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®
RS-232 Console Port	√	√	√	√	√	√	√	√
Advanced Features								
LCD Panel with 4 push buttons	√	√	√	√	√	√	√	√
Serial Data Log	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB
Offline Port Buffering	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB	64 KB
SD Slot	√	√	√	√	√	√	√	√
Software								
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1/V2c/V3, DDNS, HTTP, SMTP, HTTPS, SSL, SSH, PPPoE, RFC2217, IPv6, IPv4, Turbo Ring, Turbo Ring 2							
Security Protocols	DES, 3DES, AES, SSH, SSL, HTTPS, RADIUS, PAP, CHAP, TACACS+							
Configuration Options	Web Console, Telnet Console, Serial Console, Windows Search Utility							
Driver Support	Windows Driver Manager (for Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded), Linux Real TTY driver (for 2.4.x, 2.6.x), Fixed TTY driver (for SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, IRIX 5.x, HP-UX 11i)							
Management	SNMP MIB-II							
IP Routing	Static, RIP-I, RIP-II							
Standard Operation Modes	Real COM, TCP Server, TCP Client, UDP, Pair Connection, RFC2217, Terminal, Reverse Telnet, Ethernet Modem, Printer, PPP, Disabled							
Secure Operation Modes	Secure Real COM, Secure TCP Server, Secure TCP Client, Secure Pair Connection, SSH, Reverse SSH							
Terminal Sessions	8 sessions per port							
Physical Characteristics								
Housing	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)
Weight	3600 g	3600 g	3460 g	3460 g	3580 g	3580 g	3600 g	3600 g
Dimensions (mm)	440 x 195 x 44	440 x 195 x 44	440 x 195 x 44	440 x 195 x 44	440 x 195 x 44	440 x 195 x 44	440 x 195 x 44	440 x 195 x 44
Environmental Limits								
Operating Temperature	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C
Power Requirements								
Input Voltage	100 to 240 VAC	±48 VDC	100 to 240 VAC	±48 VDC	100 to 240 VAC	±48 VDC	100 to 240 VAC	±48 VDC
Power Consumption	285 mA @ 100 V 190 mA @ 240 V	293 mA @ 48 V	285 mA @ 100 V 190 mA @ 240 V	293 mA @ 48 V	285 mA @ 100 V 190 mA @ 240 V	293 mA @ 48 V	285 mA @ 100 V 190 mA @ 240 V	293 mA @ 48 V
Regulatory Approvals								
EMC	CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A							
Safety	UL (UL60950-1), TÜV (EN60950-1)							
EMS	EN61000-4-2 (ESD), Level 3 EN61000-4-4 (EFT), Level 2 EN61000-4-5 (Surge), Level 2							
Reliability								
Buzzer, RTC, WDT	√	√	√	√	√	√	√	√
MTBF	68707 hrs	68707 hrs	135370 hrs	135370 hrs	101783 hrs	101783 hrs	68177 hrs	68177 hrs
Warranty	5 years (see www.moxa.com/warranty)							

3

Terminal Servers > NPort® 6000 Terminal Servers

CN2600 Terminal Servers



	CN2610-8	CN2610-16	CN2610-8-2AC	CN2610-16-2AC	CN2650-8	CN2650-16
LAN Interface						
10/100BaseT(X) Ports	2 ports (8-pin RJ45 connector)					
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface						
RS-232 Ports	8	16	8	16	---	---
RS-232/422/485 Ports	---	---	---	---	8	16
Connectors	8-pin RJ45	8-pin RJ45	8-pin RJ45	8-pin RJ45	8-pin RJ45	8-pin RJ45
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark					
Flow Control	RTS/CTS, DTR/DSR, XON/XOFF					
Baudrate	50 bps to 921.6 Kbps					
15 KV ESD Protection	√	√	√	√	√	√
2 KV isolation protection	---	---	---	---	---	---
RS-485 Data Direction Control	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®
RS-232 Console Port	√	√	√	√	√	√
Advanced Features						
LCD Panel with 4 push buttons	√	√	√	√	√	√
Serial Data Log	128 KB	128 KB	128 KB	128 KB	128 KB	128 KB
Offline Port Buffering	128 KB	128 KB	128 KB	128 KB	128 KB	128 KB
Software						
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1/V2c/V3, HTTP, SMTP, ARP, PPPoE, DDNS					
Security Protocols	RADIUS, https, SSH, PAP, CHAP					
Configuration Options	Web Console, Telnet Console, Serial Console, Windows Search Utility					
Driver Support	Windows Driver Manager (for Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded), Linux Real TTY driver (for 2.4.x, 2.6.x), Fixed TTY driver (for SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i)					
Management	SNMP MIB-II					
IP Routing	Static, RIP-I, RIP-II					
Standard Operation Modes	Real COM, TCP Server, TCP Client, UDP, RFC2217, Terminal, Reverse Telnet, PPP, DRDAS, Redundant COM, Disabled					
Terminal Sessions	8 sessions per port					
Physical Characteristics						
Housing	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)
Weight	3525 g	3560 g	3760 g	3980 g	3740 g	3790 g
Dimensions (mm)	440 x 198 x 45	440 x 198 x 45	440 x 198 x 45	440 x 198 x 45	440 x 198 x 45	440 x 198 x 45
Environmental Limits						
Operating Temperature	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C
Power Requirements						
Number of Inputs	1	1	2	2	1	1
Input Voltage	100 to 240 VAC, 47 to 63 Hz					
Power Consumption	235 mA @ 100 VAC, 145 mA @ 240 V					
Regulatory Approvals						
EMC	CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A					
Safety	UL (UL60950), TÜV (EN60950)					
EMS	EN61000-4-2 (ESD), Level 3 EN61000-4-4 (EFT), Level 4 EN61000-4-5 (Surge), Level 2					
Reliability						
Buzzer, RTC, WDT	√	√	√	√	√	√
MTBF	99302 hrs					
Warranty	5 years (see www.moxa.com/warranty)					

3

Terminal Servers > CN2600 Terminal Servers

CN2600 Terminal Servers



	CN2650-8-2AC	CN2650-16-2AC	CN2650I-8	CN2650I-16	CN2650I-8-2AC	CN2650I-16-2AC
LAN Interface						
10/100BaseT(X) Ports	2 ports (8-pin RJ45 connector)					
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface						
RS-232 Ports	---	---	---	---	---	---
RS-232/422/485 Ports	8	16	8	16	8	16
Connectors	8-pin RJ45	8-pin RJ45	DB9 male	DB9 male	DB9 male	DB9 male
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark					
Flow Control	RTS/CTS, DTR/DSR, XON/XOFF					
Baudrate	50 bps to 921.6 Kbps					
15 KV ESD Protection	√	√	√	√	√	√
2 KV isolation protection	---	---	√	√	√	√
RS-485 Data Direction Control	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®
RS-232 Console Port	√	√	√	√	√	√
Advanced Features						
LCD Panel with 4 push buttons	√	√	√	√	√	√
Serial Data Log	128 KB	128 KB	128 KB	128 KB	128 KB	128 KB
Offline Port Buffering	128 KB	128 KB	128 KB	128 KB	128 KB	128 KB
Software						
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1/V2c/V3, HTTP, SMTP, ARP, PPPoE, DDNS					
Security Protocols	RADIUS, https, SSH, PAP, CHAP					
Configuration Options	Web Console, Telnet Console, Serial Console, Windows Search Utility					
Driver Support	Windows Driver Manager (for Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded), Linux Real TTY driver (for 2.4.x, 2.6.x), Fixed TTY driver (for SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i)					
Management	SNMP MIB-II					
IP Routing	Static, RIP-I, RIP-II					
Standard Operation Modes	Real COM, TCP Server, TCP Client, UDP, RFC2217, Terminal, Reverse Telnet, PPP, DRDAS, Redundant COM, Disabled					
Terminal Sessions	8 sessions per port					
Physical Characteristics						
Housing	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)
Weight	3900 g	3980 g	3666 g	3776 g	3932 g	4022 g
Dimensions (mm)	440 x 198 x 45	440 x 198 x 45	440 x 198 x 45	440 x 198 x 45	440 x 198 x 45	440 x 198 x 45
Environmental Limits						
Operating Temperature	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C
Power Requirements						
Number of Inputs	2	2	1	1	2	2
Input Voltage	100 to 240 VAC, 47 to 63 Hz					
Power Consumption	235 mA @ 100 VAC, 145 mA @ 240 VAC					
Regulatory Approvals						
EMC	CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A					
Safety	UL (UL60950), TÜV (EN60950)					
EMS	EN61000-4-2 (ESD), Level 3 EN61000-4-4 (EFT), Level 4 EN61000-4-5 (Surge), Level 2					
Reliability						
Buzzer, RTC, WDT	√	√	√	√	√	√
MTBF	99302 hrs					
Warranty	5 years (see www.moxa.com/warranty)					

Combo Switch / Serial Device Server



NPort S8000: Ethernet Switch Specifications

Ethernet Interface	
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100Base FX IEEE 802.3x for Flow Control IEEE 802.1D for Spanning Tree Protocol IEEE 802.1w for Rapid STP IEEE 802.1Q for VLAN Tagging IEEE 802.1p for Class of Service IEEE 802.1X for Authentication IEEE 802.3ad for Port Trunk with LACP
Network Protocols	ICMP, IP, TCP, UDP, ARP, Telnet, DNS, HTTP, SMTP, SNMP, IGMPv1/v2 device, GVRP, SNMPv1/v2c/v3, DHCP Server/Client, DHCP Option 82, BootP, TFTP, SNMP, SMTP, RARP, GMRP, LACP, RMON
MIB	MIB-II, Ethernet-Like MIB, P-BRIDGE MIB, Q-BRIDGE MIB, Bridge MIB, RSTP MIB, RMON MIB Group 1, 2, 3, 9
Flow Control	IEEE 802.3x flow control, back pressure flow control interface
Optical Fiber Interface	
Type	Multi-mode
Distance	0 to 2 km, 1310 nm (62.5/125 μm, 500 MHz*km)
Min. TX Output	-20 dBm
Max. TX Output	-14 dBm
Sensitivity	-34 to -30 dBm
Switch Properties	
Priority Queues	4
Max. Number of Available VLANs	64
VLAN ID Range	VID 1 to 4094
IGMP Groups	256
Switch Interface	
RJ45 Ports	10/100BaseT(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
DIP Switches	Turbo Ring, Master, Coupler, Reserve
Alarm Contact	2 relay outputs with current carrying capacity of 1A @ 24 VDC

NPort S8000: General Specifications

Port Summary	
Serial Ports	4 RS-232/422/485 ports
Ethernet Switch Ports	3 RJ45 copper ports, 2 multi-mode fiber ports
Console Ports	1 (8-pin RJ45 connector)
LED Indicators	PWR1, PWR2, READY, MASTER, COUPLER, LINK4, LINK5
Physical Characteristics	
Housing	Metal
Weight	995 g
Dimensions	73.1 x 134 x 105 mm
Environmental Limits	
Operating Temperature	0 to 60°C
Operating Humidity	5 to 95% RH
Storage Temperature	-40 to 85°C
Power Requirements	
Input Voltage	12 to 48 VDC
Power Consumption	935mA @ 12 V, 470 mA @ 24 V
Regulatory Approvals	
EMC	CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A
Safety	UL-508, UL (UL60950-1), LVD (EN60950-1)
EMS	IEC 61000-4-2, Level 4 (ESD) IEC 61000-4-4, Level 4 (EFT) IEC 61000-4-5 for serial port, Level 1 (Surge) IEC 61000-4-5 for Power Line, Level 3 (Surge) IEC 61000-4-5 for LAN port, Level 2 (Surge)
Reliability	
Buzzer, RTC, WDT	√
Warranty	5 years (see www.moxa.com/warranty)

NPort S8000: Device Server Specifications

Serial Interface	
Number of Ports	4
Serial Standards	RS-232/422/485
Connectors	DB9 male
Serial Line Protection	15 KV ESD protection for all signals 2 KV isolation protection
RS-485 Data Direction Control	ADDC® (automatic data direction control)
Pull High/Low Resistor for RS-485	1 KΩ, 150 KΩ
Terminator for RS-485	55 Ω, 120 Ω
Console Port	Dedicated RS-232 console port (8-pin RJ45)
Serial Communication Parameters	
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None, Even, Odd, Space, Mark
Flow Control	RTS/CTS and XON/XOFF
Baudrate	50 bps to 921.6 Kbps
Serial Signals	
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
Software	
Configuration Options	Web Console, Telnet Console, Serial Console, Windows Search Utility
Windows Real COM Drivers	Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded
Fixed TTY Drivers	SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i
Linux Real TTY Drivers	2.4.x, 2.6.x
Operation Modes	Real COM, TCP Server, TCP Client, UDP, RFC2217
Management	SNMP MIB-II
IP Routing	Static, RIP-I, RIP-II
Reliability	
Alert Tools	Built-in buzzer and RTC (real-time clock)
Automatic Reboot Trigger	Built-in WDT (watchdog timer)

3

Serial Device Servers > Combo Switch / Serial Device Server

General-purpose Device Servers



	NPort® 5110 NPort® 5110-T	NPort® 5130	NPort® 5150	NPort® DE-211	NPort® DE-311	NPort® 5210 NPort® 5210-T	NPort® 5230 NPort® 5230-T
Ethernet Interface							
10BaseT Ports	---	---	---	1	---	---	---
10/100BaseT(X) Ports	1	1	1	---	1	1	1
100BaseFX	---	---	---	---	---	---	---
Connector	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface							
RS-232 Ports	1	---	---	---	---	2	1
RS-232/422 Ports	---	1	---	---	---	---	1
RS-232/422/485 Ports	---	---	1	1	1	---	---
Connector	DB9-M	DB9-M	DB9-M	DB25-F	DB9-F	RJ45	TB
15 KV ESD Protection	√	√	√	√	√	√	√
2 KV Isolation Protection	---	---	---	---	---	---	---
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark						
Flow Control	RTS/CTS, XON/XOFF						
Baudrate	110 bps to 230.4 Kbps	50 bps to 921.6 Kbps		50 bps to 230.4 Kbps		110 bps to 230.4 Kbps	
Software							
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1/V2c, HTTP, SMTP			DHCP, BOOTP, Telnet, TCP, UDP, IP, ICMP, ARP		ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1/V2c, HTTP, SMTP, SNMP	
Web Console	√	√	√	---	---	√	√
Serial Console	√	---	√	√	√	√	√
Telnet Console	√	√	√	√	√	√	√
Windows Utility	√	√	√	√	√	√	√
Windows Real COM Drivers	Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded						
Fixed TTY Drivers	SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i						
Linux Real TTY Drivers	Linux 2.4.x, 2.6.x						
Onsite Configuration							
Mini Screen with Push Buttons	---	---	---	---	---	---	---
Physical Characteristics							
Housing	Metal	Metal	Metal	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)
Weight	340 g	340 g	340 g	480 g	480 g	340 g	360 g
Dimensions	52 x 80 x 22 mm			67 x 100.4 x 22 mm			
Environmental Limits							
Operating Temparture	0 to 55°C or -40 to 75°C	0 to 55°C		0 to 55°C		0 to 55°C or -40 to 75°C	
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-40 to 85°C	-40 to 85°C
Power Requirements							
Input Voltage	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 30 VDC	9 to 30 VDC	12 to 48 VDC	12 to 48 VDC
Power Consumption @ 12/24/48 VDC	128.7/72/--- mA	200/106/--- mA	200/106/--- mA	180/100/--- mA	---/150/--- mA	325/190/--- mA	325/190/--- mA
Power Consumption @ 100/240 VAC	---	---	---	---	---	---	---
Regulatory Approvals							
EMC	CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A			CE (EN55022 Class B, EN55024 Class B), FCC Part 15 Subpart B		CE (EN55022 and EN55024 Class A), FCC Part 15 Subpart B Class A	
Safety	UL (UL60950-1), TÜV (EN60950-1)			UL (UL60950), TÜV (EN60950)		UL (UL60950-1), TÜV (EN60950-1)	
Marine	---	---	---	---	---	DNV	
Medical	---	---	---	---	EN60601-1-2 Class B, EN55011	---	---
Reliability							
Buzzer, RTC, WDT	WDT only	WDT only	WDT only	---	---	√	√
MTBF	279122 hrs	246505 hrs	246034 hrs	347822 hrs	225529 hrs	134850 hrs	106955 hrs
Warranty	5 years (see www.moxa.com/warranty)						

General-purpose Device Servers

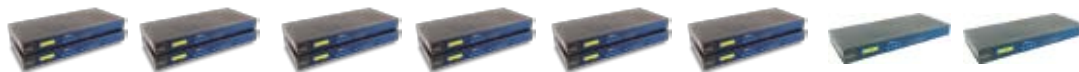


	NPort® 5232 NPort® 5232-T	NPort® 5232I NPort® 5232I-T	NPort® 5410	NPort® 5430	NPort® 5430I	NPort® 5450	NPort® 5450I
Ethernet Interface							
10BaseT Ports	---	---	---	---	---	---	---
10/100BaseT(X) Ports	1	1	1	1	1	1	1
100BaseFX	---	---	---	---	---	---	---
Connector	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface							
RS-232 Ports	---	---	4	---	---	---	---
RS-232/422 Ports	2	2	---	4	4	---	---
RS-232/422/485 Ports	---	---	---	---	---	4	4
Connector	TB	TB	DB9-M	TB	TB	DB9-M	DB9-M
15 KV ESD Protection	√	√	√	√	√	√	√
2 KV Isolation Protection	---	√	---	---	√	---	√
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark						
Flow Control	RTS/CTS, XON/XOFF	RTS/CTS, XON/XOFF	RTS/CTS, XON/XOFF	RTS/CTS, XON/XOFF	RTS/CTS, XON/XOFF	RTS/CTS, XON/XOFF	RTS/CTS, XON/XOFF
Baudrate	110 bps to 230.4 Kbps		50 bps to 921.6 Kbps				
Software							
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1/V2c, HTTP, SMTP, SNTP		ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1/V2c, HTTP, SMTP, SNTP, Rtelnet, ARP				
Web Console	√	√	√	√	√	√	√
Serial Console	---	---	---	---	---	---	---
Telnet Console	√	√	√	√	√	√	√
Windows Utility	√	√	√	√	√	√	√
Windows Real COM Drivers	Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded						
Fixed TTY Drivers	SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i						
Linux Real TTY Drivers	Linux 2.4.x, 2.6.x						
Onsite Configuration							
Mini Screen with Push Buttons	---	---	√	√	√	√	√
Physical Characteristics							
Housing	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)
Weight	360 g	380 g	740 g				
Dimensions	67 x 100.4 x 22 mm	67 x 100.4 x 35 mm	158 x 103 x 33 mm				
Environmental Limits							
Operating Tempature	0 to 55°C or -40 to 75°C		0 to 55°C (32 to 131°F)				
Operating Humidity	5 to 95% RH		5 to 95% RH				
Storage Temperature	-40 to 85°C		-20 to 70°C				
Power Requirements							
Input Voltage	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC
Power Consumption @ 12/24/48 VDC	280/150/--- mA	509.4/200/--- mA	350/190/--- mA	320/175/--- mA	530/280/--- mA	350/190/--- mA	554/294/--- mA
Power Consumption @ 100/240 VAC	---	---	---	---	---	---	---
Regulatory Approvals							
EMC	CE (EN55022 and EN55024 Class A), FCC Part 15 Subpart B Class A						
Safety	UL (UL60950-1), TÜV (EN60950-1)						
Marine	DNV						
Medical	---	---	EN60601-1-2 Class B, EN55011				
Reliability							
Buzzer, RTC, WDT	√	√	√	√	√	√	√
MTBF	102344 hrs	87083 hrs	206903 hrs	206903 hrs	206903 hrs	206903 hrs	206903 hrs
Warranty	5 years (see www.moxa.com/warranty)						

3

Serial Device Servers > General-purpose Device Servers

General-purpose Device Servers



	NPort® 5610-8	NPort® 5610-8-48V	NPort® 5630-8	NPort® 5650-8	NPort® 5650-8-M-SC	NPort® 5650-8-S-SC	NPort® 5610-16	NPort® 5610-16-48V
Ethernet Interface								
10BaseT Ports	---	---	---	---	---	---	---	---
10/100BaseT(X) Ports	1	1	1	1	---	---	1	1
100BaseFX Ports	---	---	---	---	1 (multi-mode)	1 (single-mode)	---	---
Connector	RJ45	RJ45	RJ45	RJ45	SC	SC	RJ45	RJ45
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	---	---	1.5 KV	1.5 KV
Serial Interface								
RS-232 Ports	8	8	---	---	---	---	16	16
RS-232/422 Ports	---	---	8	---	---	---	---	---
RS-232/422/485 Ports	---	---	---	8	8	8	---	---
Connector	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45
15 KV ESD Protection	√	√	√	√	√	√	√	√
2 KV Isolation Protection	---	---	---	---	---	---	---	---
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark							
Flow Control	RTS/CTS, XON/XOFF							
Baudrate	50 bps to 921.6 Kbps							
Software								
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1/V2c, HTTP, SMTP, SNTp, ARP, PPP, SLIP, RTelnet, RFC2217							
Web Console	√	√	√	√	√	√	√	√
Serial Console	---	---	---	---	---	---	---	---
Telnet Console	√	√	√	√	√	√	√	√
Windows Utility	√	√	√	√	√	√	√	√
Windows Real COM Drivers	Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded							
Fixed TTY Drivers	SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i							
Linux Real TTY Drivers	Linux 2.4.x, 2.6.x							
Onsite Configuration								
Mini Screen with Push Buttons	√	√	√	√	√	√	√	√
Physical Characteristics								
Housing	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)
Weight	3340 g	3160 g	3380 g	3360 g	3380 g	3380 g	3420 g	3260 g
Dimensions	440 x 45 x 198 mm							
Environmental Limits								
Operating Temparture	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 75°C	-20 to 75°C	-20 to 75°C	-20 to 75°C	-20 to 75°C	-20 to 75°C	-20 to 75°C	-20 to 75°C
Power Requirements								
Input Voltage	100 to 240 VAC, 47 to 63 hz	±48 VDC	100 to 240 VAC, 47 to 63 hz	100 to 240 VAC, 47 to 63 hz	100 to 240 VAC, 47 to 63 hz	100 to 240 VAC, 47 to 63 hz	100 to 240 VAC, 47 to 63 hz	±48 VDC
Power Consumption @ 12/24/48 VDC		---/---/135 mA	---	---	---	---	---	---/---/135 mA
Power Consumption @ 100/240 VAC	141/93 mA	---	152/98 mA	158/102 mA	174/113 mA	164/110 mA	141/93 mA	---
Regulatory Approvals								
EMC	CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A, IEC61000-4-12		CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A				CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A, IEC61000-4-12	
Safety	UL (UL60950-1), TÜV (EN60950-1)							
Marine	---	---	---	---	---	---	---	---
Medical	EN60601-1-2 Class B, EN55011							
Reliability								
Buzzer, RTC, WDT	√	√	√	√	√	√	√	√
MTBF	97294 hrs	96758 hrs	118405 hrs	117584 hrs	116914 hrs	116914 hrs	94928 hrs	94417 hrs
Warranty	5 years (see www.moxa.com/warranty)							

General-purpose Device Servers



	NPort® 5630-16	NPort® 5650-16	NPort® 5650-16-M-SC	NPort® 5650-16-S-SC	NPort® 5610-8-DT	NPort® 5610-8-DT-J	NPort® 5650-8-DT	NPort® 5650I-8-DT	NPort® 5650-8-DT-J
Ethernet Interface									
10BaseT Ports	---	---	---	---	---	---	---	---	---
10/100BaseT(X) Ports	1	1	---	---	2	2	2	2	2
100BaseFX Ports	---	---	1 (multi-mode)	1 (single-mode)	---	---	---	---	---
Connector	RJ45	RJ45	SC	SC	RJ45	RJ45	RJ45	RJ45	RJ45
Magnetic Isolation Protection	1.5 KV	1.5 KV	---	---	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface									
RS-232 Ports	---	---	---	---	8	8	---	---	---
RS-232/422 Ports	16	---	---	---	---	---	---	---	---
RS-232/422/485 Ports	---	16	16	16	---	---	8	8	8
Connector	RJ45	RJ45	RJ45	RJ45	DB9-M	RJ45	DB9-M	DB9-M	RJ45
15 KV ESD Protection	√	√	√	√	√	√	√	√	√
2 KV Isolation Protection	---	---	---	---	---	---	---	√	---
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark								
Flow Control	RTS/CTS, XON/XOFF								
Baudrate	50 bps to 921.6 Kbps								
Software									
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1/V2c, HTTP, SMTP, SNTp, ARP, PPP, SLIP, Rtelnet, RFC2217				ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1/V2c, HTTP, SMTP, SNTp, Rtelnet, ARP, RFC2217				
Web Console	√	√	√	√	√	√	√	√	√
Serial Console	---	---	---	---	√	√	√	√	√
Telnet Console	√	√	√	√	√	√	√	√	√
Windows Utility	√	√	√	√	√	√	√	√	√
Windows Real COM Drivers	Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded								
Fixed TTY Drivers	SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i								
Linux Real TTY Drivers	Linux 2.4.x, 2.6.x								
Onsite Configuration									
Mini Screen with Push Buttons	√	√	√	√	√	√	√	√	√
Physical Characteristics									
Housing	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)	Metal (IP30)
Weight	3400 g	3460 g	3440 g	3440 g	1760 g	1170 g	1770 g	1850 g	1710 g
Dimensions	440 x 45 x 198 mm				197 x 44 x 135.5 mm				
Environmental Limits									
Operating Tempature	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 75°C	-20 to 75°C	-20 to 75°C	-20 to 75°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C
Power Requirements									
Input Voltage	100 to 240 VAC, 47 to 63 hz	100 to 240 VAC, 47 to 63 hz	100 to 240 VAC, 47 to 63 hz	100 to 240 VAC, 47 to 63 hz	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC
Power Consumption @ 12/24/48 VDC	---	---	---	---	611/300/140 mA	611/300/140 mA	615/300/156 mA	1066/510/200 mA	615/300/156 mA
Power Consumption @ 100/240 VAC	152/98 mA	158/102 mA	174/113 mA	164/110 mA	---	---	---	---	---
Regulatory Approvals									
EMC	CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A				CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A				
Safety	UL (UL60950-1), TÜV (EN60950-1)								
Marine	---	---	---	---	---	---	---	---	---
Medical	EN60601-1-2 Class B, EN55011	EN60601-1-2 Class B, EN55011	EN60601-1-2 Class B, EN55011	EN60601-1-2 Class B, EN55011	---	---	---	---	---
Reliability									
Buzzer, RTC, WDT	√	√	√	√	√	√	√	√	√
MTBF	91483 hrs	104767 hrs	87528 hrs	87528 hrs	163356 hrs	163356 hrs	163356 hrs	163356 hrs	163356 hrs
Warranty	5 years (see www.moxa.com/warranty)								

3

Serial Device Servers > General-purpose Device Servers

Industrial-grade Device Servers



	NPort® IA5150 NPort® IA5150-T	NPort® IA5150I NPort® IA5150I-T	NPort® IA5150-M-SC NPort® IA5150-M-SC-T	NPort® IA5150I-M-SC NPort® IA5150I-M-SC-T	NPort® IA5150-S-SC NPort® IA5150-S-SC-T	NPort® IA5150I-S-SC NPort® IA5150I-S-SC-T	NPort® IA5250 NPort® IA5250-T
Ethernet Interface							
10/100BaseT(X) Ports	2	2	---	---	---	---	2
100BaseFX Ports	---	---	1 (multi-mode)	1 (multi-mode)	1 (single-mode)	1 (single-mode)	---
Connector	RJ45	RJ45	SC	SC	SC	SC	RJ45
Magnetic Isolation Protection	1.5 KV	1.5 KV	---	---	---	---	1.5 KV
Serial Interface							
RS-232/422/485 Ports	1	1	1	1	1	1	2
Connector	DB9-M/TB	DB9-M/TB	DB9-M/TB	DB9-M/TB	DB9-M/TB	DB9-M/TB	DB9-M
15 KV ESD Protection	√	√	√	√	√	√	√
2 KV Isolation Protection	---	√	---	√	---	√	---
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark						
Flow Control	RTS/CTS, XON/XOFF						
Baudrate	110 bps to 230.4 Kbps						
Software							
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, Rtelnet, DNS, SNMP V1/V2c, HTTP, SMTP, SNTP						
Configuration Options	Web Console, Serial Console, Telnet Console, Windows Utility						
Windows Real COM Drivers	Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded						
Fixed TTY Drivers	SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i						
Linux Real TTY Drivers	Linux 2.4.x, 2.6.x						
Physical Characteristics							
Housing	Plastic (IP30)						
Weight	360 g						
Dimensions	29 x 89.2 x 118.5 mm						
Environmental Limits							
Operating Temparture	0 to 55°C or -40 to 75°C						
Operating Humidity	5 to 95% RH						
Storage Temperature	-40 to 85°C						
Power Requirements							
Input Voltage	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC
Power Consumption	360 mA @ 12 V, 195 mA @ 24 V	420 mA @ 12 V, 215 mA @ 24 V	500 mA @ 12 V, 250 mA @ 24 V	510 mA @ 12 V, 260 mA @ 24 V	470 mA @ 12 V, 210 mA @ 24 V	490 mA @ 12 V, 250 mA @ 24 V	440 mA @ 12 V, 200 mA @ 24 V
Regulatory Approvals							
EMC	CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A						
Safety	UL (UL60950-1), UL508, TÜV (EN60950-1)						
Hazardous Location	UL/cUL Class 1 Division 2 Groups A, B, C and D						
ATEX	Class I, Zone 2						
Marine	DNV						
EMS	EN61000-4-2 (ESD), Level 3; EN61000-4-3 (RS), Level 3; EN61000-4-4 (EFT), Level 4; EN61000-4-5 (Surge), Level 3; EN61000-4-6 (CS), Level 3; EN61000-4-8; EN61000-4-11; EN61000-4-12						
IEC	IEC60068-2-27 (Shock); IEC60068-2-32 (Freefall); IEC60068-2-6 (Vibration)						
Dust-proof	IP30	IP30	IP30	IP30	IP30	IP30	IP30
Reliability							
Buzzer, RTC, WDT	√	√	√	√	√	√	√
MTBF	183747 hrs	195614 hrs	183747 hrs	195614 hrs	183747 hrs	195614 hrs	194765 hrs
Warranty	5 years (see www.moxa.com/warranty)						

Embedded Device Servers



	MiNePort E1 MiNePort E1-T	NE-4110S	NE-4110A	NE-4120S	NE-4120A	NE-4100T	WE-2100T
Form Factor							
Type	Drop-in module	Ready-to-go stand-alone modules				26-pin dual-in-line package	Small metal housing
Dimensions	33.9 x 16.25 x 13.5 mm	57 × 40 mm	57 × 40 mm	57 × 40 mm	57 × 40 mm	45 × 36 mm	54 x 40 x 13.3 mm
Ethernet Interface							
10/100BaseT(X) Ports	1	1	1	1	1	1	1
Connector	RJ45	RJ45	RJ45	5-pin pin header		26-pin dual-in-line	44-pin dual-in-line
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
WLAN Interface							
Standard Compliance	---	---	---	---	---	---	IEEE 802.11a/b/g
Radio Frequency Type	---	---	---	---	---	---	DSSS, CCK, DFDM
Wireless Security	---	---	---	---	---	---	SEP, SPA, SPA2, 802.11i
Network Modes	---	---	---	---	---	---	Infrastructure (a/b/g), Ad Hoc (b/g)
Serial Interface							
TTL Ports	1 (data port)	1 (console port)				2 (1 data port, 1 console port)	
RS-232 Ports	---	1 (data port)	---	1 (data port)	---	---	---
RS-232/422 Ports	---	---	1 (data port)	---	1 (data port)	---	---
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark						
Flow Control	RTS/CTS, XON/XOFF						
Baudrate	50 bps to 230.4 Kbps * (supports non-standard baudrates)	110 bps to 230.4 Kbps					50 bps to 921.6 Kbps
Programmable GPIO Pins	3	4	4	4	4	4	---
Software							
Network Protocols	ICMP, IP, TCP, UDP, DHCP, Telnet, HTTP, SNMP V1/V2c, SMTP ARP, TFTP, Auto IP, BOOTP						DNS, SNMP, SSH, HTTPS
Configuration Options	Web/Serial/Telnet Console, Windows Utility						
Serial Command Mode	√	---	---	---	---	---	√
Windows Real COM Drivers	Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded						
Fixed TTY Drivers	SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i						
Linux Real TTY Drivers	Linux 2.4.x, 2.6.x						
Operation Modes	TCP Server, TCP Client, UDP, Real COM mode, Modem Mode, RFC2217	Real COM, TCP Server, TCP Client, UDP					Real COM, TCP Server, TCP Client, UDP, RFC2217
Environmental Limits							
Operating Temparture	0 to 55°C or -40 to 85°C	0 to 55°C or -40 to 75°C					0 to 55°C
Operating Humidity	5 to 95% RH						5 to 95% RH
Storage Temperature	-40 to 85°C	-20 to 70°C					-20 to 70°C
Power Requirements							
Input Voltage	3.3 VDC (±5%)	5 VDC (±5%)	5 VDC (±5%)	5 VDC (±5%)	5 VDC (±5%)	5 VDC (±5%)	3.3 VDC (±5%)
Power Consumption	160 mA @ 3.3 VDC max.	290 mA @ 5 VDC max.					540 mA (at full speed)
Regulatory Approvals							
EMC	EN55022:1998, Class B (radiated & conducted emissions); EN55024:1998 (direct & indirect ESD, electrical fast-transient/ burst immunity, power frequency magnetic field immunity)	CE (EN55022 Class A), FCC Part 15 Subpart B Class A					CE (EN55022 and EN55024 Class A, ETSI EN 301 489-17, ETSI EN 301 489-1)
Reliability							
Watchdog Timer	√	√	√	√	√	√	√
MTBF	---	290276 hrs	289573 hrs	289573 hrs	289573 hrs	288173 hrs	505288 hrs
Warranty	5 years (see www.moxa.com/warranty)						

* Baudrates up to 921.6 Kbps available by request

3

Serial Device Servers > Embedded Device Servers

Ethernet Fieldbus Gateways



	MGate™ MB3170 MGate™ MB3170-T	MGate™ MB3170I MGate™ MB3170I-T	MGate™ MB3270 MGate™ MB3270-T	MGate™ MB3270I MGate™ MB3270I-T	MGate™ MB3180	MGate™ MB3280	MGate™ MB3480
Ethernet Interface							
Number of Ports	2 (1 IP)	2 (1 IP)	2 (1 IP)	2 (1 IP)	1	1	1
Speed	10/100 Mbps	10/100 Mbps	10/100 Mbps	10/100 Mbps	10/100 Mbps	10/100 Mbps	10/100 Mbps
Connector	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45	RJ45
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface							
Number of Ports	1	1	2	2	1	2	4
Serial Standards	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485
Connectors	RS-232: DB9-M; RS-422/485: Terminal Block		DB9-M	DB9-M	DB9-M	DB9-M	DB9-M
ESD Protection	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV
RS-485 Data Direction Control	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®	ADDC®
Serial Communication Parameters	Data Bits: 7, 8; Stop Bits: 1, 2; Parity: None, Even, Odd, Space, Mark						
Parity	None, Even, Odd, Space, Mark						
Flow Control	RTS/CTS, DTR/DSR (RS-232 only)						
Baudrate	50 bps to 921.6 Kbps						
Software							
Operation Modes	RTU Slave, RTU Master, ASCII Slave, ASCII Master						
Utilities	MGate™ Manager Suite for Windows 98, ME, NT, 2000, XP, 2003, Vista						
Smart Routing	√	√	√	√	√	√	√
Serial Redirection	√	√	√	√	---	---	---
Priority Control	√	√	√	√	---	---	---
Ethernet Protocol	---	---	---	---	---	---	---
Serial Protocol	---	---	---	---	---	---	---
Physical Characteristics							
Housing	Plastic	Plastic	Plastic	Plastic	Metal	Metal	Metal (IP30)
Dimensions	29 x 89.2 x 118.5 mm				22 x 52 x 80 mm	22 x 77 x 111 mm	35.5 x 103 x 158 mm
Environmental Limits							
Operating Temperature	0 to 55°C or -40 to 75°C				0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-40 to 85°C	-40 to 85°C	-40 to 85°C	-40 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C
Power Requirements							
Input Voltage	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC
Power Connector	Terminal block	Terminal block	Terminal block	Terminal block	Power jack	Power jack and terminal block	
Regulatory Approvals							
EMC	CE (EN55022 Class A and EN55024), FCC Part 15 Subpart B Class A						
Safety	UL (UL60950-1), TÜV (EN60950-1)						
Hazardous Location	UL/cUL Class 1 Division 2 Groups A, B, C, D; ATEX Class 1 Zone 2				---	---	---
Shock	IEC 60068-2-27				---	---	---
Freefall	IEC 60068-2-23				---	---	---
Vibration	IEC 60068-2-6				---	---	---
Marine	DNV				---	---	---
EMS	EN61000-4-2 (ESD): Level 3 EN61000-4-3 (RS): Level 3 EN61000-4-4 (EFT): Level 4 EN61000-4-5 (Surge): Level 3 EN61000-4-6 (CS): Level 3 EN61000-4-8: Passed EN61000-4-11: Passed EN61000-4-12: Passed				EN61000-4-2 (ESD): Level 2 EN61000-4-3 (RS): Level 2 EN61000-4-4 (EFT): Level 2 EN61000-4-5 (Surge): Level 2 EN61000-4-6 (CS): Level 2 EN61000-4-8: Passed EN61000-4-11: Passed EN61000-4-12: Passed		
Reliability							
Warranty	5 years (see www.moxa.com/warranty)						

Ethernet Fieldbus Gateways



	MGate™ EIP3170 MGate™ EIP3170-T	MGate™ EIP3170I MGate™ EIP3170I-T	MGate™ EIP3270 MGate™ EIP3270-T	MGate™ EIP3270I MGate™ EIP3270I-T
Ethernet Interface				
Number of Ports	2 (1 IP)	2 (1 IP)	2 (1 IP)	2 (1 IP)
Speed	10/100 Mbps	10/100 Mbps	10/100 Mbps	10/100 Mbps
Connector	RJ45	RJ45	RJ45	RJ45
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface				
Number of Ports	1	1	2	2
Serial Standards	RS-232/422	RS-232/422	RS-232/422	RS-232/422
Connectors	DB9-M (RS-232), TB (RS-422)	DB9-M (RS-232), TB (RS-422)	DB9-M	DB9-M
ESD Protection	15 KV	15 KV	15 KV	15 KV
RS-485 Data Direction Control	ADDC®	ADDC®	ADDC®	ADDC®
Serial Communication Parameters	Data Bits: 7, 8; Stop Bits: 1, 2; Parity: None, Even, Odd, Space, Mark			
Parity	None, Even, Odd, Space, Mark			
Flow Control	RTS/CTS, DTR/DSR			
Baudrate	50 bps to 921.6 Kbps			
Software				
Operation Modes	---	---	---	---
Utilities	MGate™ Manager Suite for Windows 98, ME, NT, 2000, XP, 2003, Vista			
Smart Routing	√	√	√	√
Serial Redirection	---	---	√	√
Priority Control	---	---	---	---
Ethernet Protocol	CIP (PCCC) on Ethernet/IP	CIP (PCCC) on Ethernet/IP	CIP (PCCC) on Ethernet/IP	CIP (PCCC) on Ethernet/IP
Serial Protocol	DF1 Full-duplex	DF1 Full-duplex	DF1 Full-duplex	DF1 Full-duplex
Physical Characteristics				
Housing	Plastic	Plastic	Plastic	Plastic
Dimensions	29 x 89.2 x 118.5 mm	29 x 89.2 x 118.5 mm	29 x 89.2 x 118.5 mm	29 x 89.2 x 118.5 mm
Environmental Limits				
Operating Temperature	0 to 55°C or -40 to 75°C	0 to 55°C or -40 to 75°C	0 to 55°C or -40 to 75°C	0 to 55°C or -40 to 75°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C
Power Requirements				
Input Voltage	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC
Power Connector	Terminal block	Terminal block	Terminal block	Terminal block
Regulatory Approvals				
EMC	CE (EN55022 Class A and EN55024), FCC Part 15 Subpart B Class A			
Safety	UL (UL60950-1), LVD (EN60950-1)			
Hazardous Location	UL/cUL Class 1 Division 2 Groups A, B, C, D; ATEX Class 1 Zone 2			
Shock	IEC60068-2-27			
Freefall	IEC60068-2-23			
Vibration	IEC60068-2-6			
Marine	---	---	---	---
EMS	EN61000-4-2 (ESD): Level 3 EN61000-4-3 (RS): Level 3 EN61000-4-4 (EFT): Level 4 EN61000-4-5 (Surge): Level 3 EN61000-4-6 (CS): Level 3 EN61000-4-8: Passed EN61000-4-11: Passed EN61000-4-12: Passed			
Reliability				
Warranty	5 years (see www.moxa.com/warranty)			

3

Ethernet Fieldbus Gateways > Ethernet Fieldbus Gateways

PCI Express Serial Boards



	CP-118EL	CP-168EL	CP-114EL	CP-114EL-I	CP-104EL	CP-102E	CP-102EL	CP-132EL	CP-132EL-I
Hardware									
Comm. Controller	MU860		16C550C compatible		MU860	16C550C compatible			
Bus	PCI Express x1								
Connector	VHDCI 68		DB44 female			DB9 male	DB25 female		
Serial Interface									
RS-232 Ports	---	8	---	---	4	2	2	---	---
RS-422 Ports	---	---	---	---	---	---	---	---	---
RS-422/485 Ports	---	---	---	---	---	---	---	2	2
RS-232/422/485 Ports	8	---	4	4	---	---	---	---	---
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark								
Flow Control	RTS/CTS, XON/XOFF							XON/XOFF	
Baudrate	50 bps to 921.6 Kbps								
ESD Protection	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV
Optical Isolation	---	---	---	2 KV	---	---	---	---	2 KV
Driver Support									
Windows 9X/ME/NT	---	---	---	---	---	---	---	---	---
Windows 2000	√	√	√	√	√	√	√	√	√
Windows XP/2003/Vista x86/x64	√	√	√	√	√	√	√	√	√
Windows 2008 x86/x64	√	√	√	√	√	√	√	√	√
Windows CE 5.0	√	√	---	---	√	---	---	---	---
Windows CE 6.0	---	---	---	---	---	---	---	---	---
Windows XP Embedded	√	√	√	√	√	√	√	√	√
DOS	√	√	---	---	√	---	---	---	---
Linux 2.4/2.6	√	√	√	√	√	√	√	√	√
FreeBSD 4/5	√	√	---	---	√	---	---	---	---
QNX 4	---	---	---	---	---	---	---	---	---
QNX 6	√	√	√	√	√	√	√	√	√
SCO Open Server 5/6	√	√	√	√	√	√	√	√	√
UnixWare 7	√	√	√	√	√	√	√	√	√
Environmental Factors									
Dimensions (mm)	64.4 x 132	62.7 x 102	67.2 x 136.9	67.2 x 136.9	62.7 x 100	85.0 x 100	67.2 x 102.0	67.2 x 102.0	67.2 x 104.0
Operating Temperature	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C
Regulatory Approvals									
FCC, Part 15 Class	B	B	B	B	B	B	B	B	B
EN55022 Class B	---	---	---	---	---	---	---	---	---
EN55022	---	---	---	---	---	---	---	---	---
EN55024	√	√	√	√	√	√	√	√	√
EN61000-3-2	√	√	√	√	√	√	√	√	√
EN61000-3-3	√	√	√	√	√	√	√	√	√
EN61000-6-2	√	√	√	√	√	√	√	√	√
EN61000-6-4	---	---	---	---	---	---	---	---	---
IEC 61000-4-2	√	√	√	√	√	√	√	√	√
IEC 61000-4-3	√	√	√	√	√	√	√	√	√
EC 61000-4-4	√	√	√	√	√	√	√	√	√
IEC 61000-4-5	√	√	√	√	√	√	√	√	√
IEC 61000-4-6	√	√	√	√	√	√	√	√	√
IEC 61000-4-8	√	√	√	√	√	√	√	√	√
IEC 61000-4-11	√	√	√	√	√	√	√	√	√
IEC 61000-4-11 (DIPS)	---	---	---	---	---	---	---	---	---
ENV5204	---	---	---	---	---	---	---	---	---
Reliability									
Warranty	5 years (see www.moxa.com/warranty)								

3

Multiport Serial Boards > PCI Express Serial Boards

Universal PCI Serial Boards



	C320Turbo/PCI	C218Turbo/PCI	CP-118U CP-118U-T	CP-138U CP-138U-T	CP-118U-I CP-118U-I-T	CP-138U-I CP-138U-I-T	CP-168U CP-168U-T	CP-114UL CP-114UL-T	CP-114UL-I CP-114UL-I-T	CP-104UL CP-104UL-T
Hardware										
Comm. Controller	16C550C or compatible		MU860							
Bus	32-bit Universal PCI									
Connector	DB25 female	DB62 female			DB78 female		DB62 female	DB44 female		
Serial Interface										
RS-232 Ports	32	8	---	---	---	---	8	---	---	4
RS-422 Ports	---	---	---	---	---	---	---	---	---	---
RS-422/485 Ports	---	---	---	8	---	8	---	---	---	---
RS-232/422/485 Ports	---	---	8	---	8	---	---	4	4	---
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark									
Flow Control	---	---	RTS/CTS, XON/XOFF					RTS/CTS, XON/XOFF		
Baudrate	50 bps to 460.8 Kbps	50 bps to 921.6 Kbps								
ESD Protection	---	Optional	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV
Optical Isolation	---	Optional	---	---	2 KV	2 KV	Optional	---	2 KV	---
Driver Support										
Windows 9X/ME/NT	√	√	√	√	√	√	√	√	√	√
Windows 2000	√	√	√	√	√	√	√	√	√	√
Windows XP/2003/Vista x86/x64	√	√	√	√	√	√	√	√	√	√
Windows 2008 x86/x64	√	√	√	√	√	√	√	√	√	√
Windows CE 5.0	---	---	√	√	√	√	√	√	√	√
Windows CE 6.0	---	---	√	√	√	√	√	√	√	√
Windows XP Embedded	---	---	√	√	√	√	√	√	√	√
DOS	√	√	√	√	√	√	√	√	√	√
Linux 2.4/2.6	√	√	√	√	√	√	√	√	√	√
FreeBSD 4/5	---	---	√	√	√	√	√	√	√	√
QNX 4	√	√	---	---	---	---	---	---	---	---
QNX 6	√	√	√	√	√	√	√	√	√	√
SCO Open Server 5/6	√	√	√	√	√	√	√	√	√	√
UnixWare 7	√	√	√	√	√	√	√	√	√	√
Environmental Factors										
Dimensions (mm)	90 x 120	105 x 180	82 x 135	82 x 135	105 x 133	105 x 133	82 x 120	64.4 x 120	64.4 x 120	64.4 x 120
Operating Temperature	0 to 55°C	0 to 55°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C
Regulatory Approvals										
FCC, Part 15 Class	A	A	B	B	B	B	B	B	B	B
EN55022 Class B	---	---	---	---	---	---	---	---	---	---
EN55022	---	---	---	---	√	√	√	√	√	√
EN55024	---	---	√	√	√	√	√	√	√	√
EN61000-3-2	---	---	√	√	√	√	√	√	√	√
EN61000-3-3	---	---	√	√	√	√	√	√	√	√
EN61000-6-2	---	---	√	√	---	---	---	---	---	---
EN61000-6-4	---	---	---	---	---	---	---	---	---	---
IEC 61000-4-2	√	√	√	√	√	√	√	√	√	√
IEC 61000-4-3	√	√	√	√	√	√	√	√	√	√
IEC 61000-4-4	√	√	√	√	√	√	√	√	√	√
IEC 61000-4-5	---	√	√	√	√	√	√	√	√	√
IEC 61000-4-6	---	√	√	√	√	√	√	√	√	√
IEC 61000-4-8	---	---	√	√	√	√	√	√	√	√
IEC 61000-4-11	---	---	---	---	---	---	---	---	---	---
IEC 61000-4-11 (DIPS)	---	√	√	√	√	√	√	√	√	√
ENV5204	√	√	---	---	---	---	---	---	---	---
Reliability										
Warranty	5 years (see www.moxa.com/warranty)									

3

Multiport Serial Boards > Universal PCI Serial Boards

Universal PCI Serial Boards



	CP-104JU CP-104JU-T	CP-134U CP-134U-T	CP-134U-I CP-134U-I-T	CP-112UL CP-112UL-T	CP-112UL-I CP-112UL-I-T	CP-102U CP-102U-T	CP-102UL CP-102UL-T	CP-132UL CP-132UL-T	CP-132UL-I CP-132UL-I-T	POS-104UL POS-104UL-T
Hardware										
Comm. Controller	MU860									
Bus	32-bit Universal PCI									
Connector	RJ45 x 4	DB44 female		DB25 female		DB9 male x 2	DB25 female			DB44 female
Serial Interface										
RS-232 Ports	4	---	---	---	---	2	2	---	---	4
RS-422 Ports	---	---	---	---	---	---	---	---	---	---
RS-422/485 Ports	---	4	4	---	---	---	---	2	2	---
RS-232/422/485 Ports	---	---	---	2	2	---	---	---	---	---
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark									
Flow Control	RTS/CTS, XON/XOFF									
Baudrate	50 bps to 921.6 Kbps									
ESD Protection	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV
Optical Isolation	---	---	2 KV	---	2 KV	---	---	---	2 KV	---
Driver Support										
Windows 9X/ME/NT	✓	✓	✓	---	---	✓	✓	✓	✓	✓
Windows 2000	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Windows XP/2003/Vista x86/x64	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Windows 2008 x86/x64	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Windows CE 5.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Windows CE 6.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Windows XP Embedded	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DOS	✓	✓	✓	---	---	✓	✓	✓	✓	✓
Linux 2.4/2.6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FreeBSD 4/5	✓	✓	✓	---	---	✓	✓	✓	✓	✓
QNX 4	---	---	---	---	---	---	---	---	---	---
QNX 6	✓	✓	✓	---	---	✓	✓	✓	✓	✓
SCO Open Server 5/6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
UnixWare 7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Environmental Factors										
Dimensions (mm)	83 x 120	82.5 x 120	115 x 120	---	---	120 x 120	64.5 x 120	64.5 x 120	64.5 x 120	64.4 x 120
Operating Temperature	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C
Regulatory Approvals										
FCC, Part 15 Class	B	B	B	B	B	B	B	B	B	B
EN55022 Class B	---	---	---	---	---	---	---	---	---	---
EN55022	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EN55024	✓	✓	✓	✓	✓	✓	✓	✓	✓	---
EN61000-3-2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EN61000-3-3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EN61000-6-2	---	---	---	---	---	---	---	---	---	✓
EN61000-6-4	---	---	---	---	---	---	---	---	---	✓
IEC 61000-4-2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IEC 61000-4-3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IEC 61000-4-4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IEC 61000-4-5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IEC 61000-4-6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IEC 61000-4-8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IEC 61000-4-11	---	---	---	---	---	---	---	---	---	---
IEC 61000-4-11 (DIPS)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ENV5204	---	---	---	---	---	---	---	---	---	---
Reliability										
Warranty	5 years (see www.moxa.com/warranty)									

Fiber Optic Serial Boards



	CP-102UF-M-ST	CP-102UF-M-ST-T	CP-102UF-S-ST	CP-102UF-S-ST-T
Hardware				
Bus	32-bit Universal PCI			
Optical Fiber Interface				
Mode	Multi-mode		Single-mode	
Fiber Connectors	ST type			
Cable Requirements	50/125, 62.5/125, or 100/140 μm		8.3/125, 8.75/125, 9/125 or 10/140 μm	
Transmission Distance	Max. 5 km		Max. 40 km	
Wavelength	820 nm		1310 nm	
Tx Output	-5 dBm			
Rx Sensitivity	-20 dBm		-24 dBm	
Point-to-Point Transmission	Half or full duplex			
Ring Transmission	Half duplex			
Serial Interface				
Number of Ports	2	2	2	2
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark			
Flow Control	XON/XOFF			
Baudrate	50 bps to 921.6 Kbps			
Driver Support				
Windows 9X/ME/NT	---	---	---	---
Windows 2000	√	√	√	√
Windows XP/2003/Vista x86/x64	√	√	√	√
Windows 2008 x86/x64	√	√	√	√
Windows CE 5.0	√	√	√	√
Windows CE 6.0	√	√	√	√
Windows XP Embedded	√	√	√	√
DOS	√	√	√	√
Linux 2.4/2.6	√	√	√	√
FreeBSD 4/5	---	---	---	---
QNX 4	---	---	---	---
QNX 6	√	√	√	√
SCO Open Server 5/6	√	√	√	√
UnixWare 7	√	√	√	√
Environmental Factors				
Dimensions (mm)	64.4 x 120	64.4 x 120	64.4 x 120	64.4 x 120
Operating Temperature	0 to 55°C	-40 to 85°C	0 to 55°C	-40 to 85°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C
Regulatory Approvals				
FCC, Part 15 Class	B	B	B	B
EN55022 Class B	√	√	√	√
EN55022	---	---	---	---
EN55024	√	√	√	√
EN61000-3-2	√	√	√	√
EN61000-3-3	√	√	√	√
EN61000-6-2	---	---	---	---
EN61000-6-4	---	---	---	---
IEC 61000-4-2	√	√	√	√
IEC 61000-4-3	√	√	√	√
IEC 61000-4-4	√	√	√	√
IEC 61000-4-5	√	√	√	√
IEC 61000-4-6	√	√	√	√
IEC 61000-4-8	√	√	√	√
IEC 61000-4-11	---	---	---	---
IEC 61000-4-11 (DIPS)	√	√	√	√
ENV5204	---	---	---	---
Reliability				
Warranty	5 years (see www.moxa.com/warranty)			

3

Multiport Serial Boards > Fiber Optic Serial Boards

ISA Serial Boards



	C320Turbo	C218Turbo	C168H	C168HS	C104H	C104HS
Hardware						
Comm. Controller	16C550C or compatible					
Bus	16-bit ISA					
Connector	DB25 female	DB62 female			DB37 female	
Serial Interface						
RS-232 Ports	32	8	8	8	4	4
RS-422 Ports	---	---	---	---	---	---
RS-422/485 Ports	---	---	---	---	---	---
RS-232/422/485 Ports	---	---	---	---	---	---
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark					
Flow Control	---	---	---	---	---	---
Baudrate	50 bps to 460.8 Kbps	50 bps to 921.6 Kbps				
ESD Protection	---	Optional	---	25 KV	---	25 KV
Optical Isolation	---	Optional	Optional	Optional	---	---
Driver Support						
Windows 9X/ME/NT	√	√	√	√	√	√
Windows 2000	√	√	√	√	√	√
Windows XP/2003/Vista x86/x64	√	√	√	√	√	√
Windows 2008 x86/x64	√	√	√	√	√	√
Windows CE 5.0	---	---	---	---	---	---
Windows CE 6.0	---	---	---	---	---	---
Windows XP Embedded	---	---	√	√	√	√
DOS	√	√	√	√	√	√
Linux 2.4/2.6	√	√	√	√	√	√
FreeBSD 4/5	---	---	√	√	√	√
QNX 4	√	√	√	√	√	√
QNX 6	√	√	√	√	√	√
SCO Open Server 5/6	√	√	√	√	√	√
UnixWare 7	√	√	√	√	√	√
Environmental Factors						
Dimensions (mm)	107 x 158	105 x 180	93 x 157	93 x 157	83 x 157	83 x 157
Operating Temperature	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C
Regulatory Approvals						
FCC, Part 15 Class	A	A	A	A	A	A
EN55022 Class B	---	---	---	---	---	---
EN55022	---	---	√	√	√	√
EN55024	---	---	---	---	---	---
EN61000-3-2	---	---	---	---	---	---
EN61000-3-3	---	---	---	---	---	---
EN61000-6-2	---	---	---	---	---	---
EN61000-6-4	---	---	---	---	---	---
IEC 61000-4-2	√	√	√	√	√	√
IEC 61000-4-3	√	√	√	√	√	√
IEC 61000-4-4	√	√	√	√	√	√
IEC 61000-4-5	---	√	---	---	---	---
IEC 61000-4-6	---	√	---	---	---	---
IEC 61000-4-8	---	---	---	---	---	---
IEC 61000-4-11	---	---	---	---	---	---
IEC 61000-4-11 (DIPS)	---	√	---	---	---	---
ENV5204	√	√	√	√	√	√
Reliability						
Warranty	5 years (see www.moxa.com/warranty)					

3

Multiport Serial Boards > ISA Serial Boards

ISA Serial Boards



	CI-134	CI-134I	CI-134IS	CI-132	CI-132I	CI-132IS
Hardware						
Comm. Controller	16C550C or compatible					
Bus	16-bit ISA					
Connector	DB37 female			DB9 male x 2		
Serial Interface						
RS-232 Ports	---	---	---	---	---	---
RS-422 Ports	---	---	---	---	---	---
RS-422/485 Ports	4	4	4	2	2	2
RS-232/422/485 Ports	---	---	---	---	---	---
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark					
Flow Control	---	---	---	---	---	---
Baudrate	50 bps to 921.6 Kbps					
ESD Protection	---	---	25 KV	---	---	25 KV
Optical Isolation	---	2 KV	2 KV	---	2 KV	2 KV
Driver Support						
Windows 9X/ME/NT	√	√	√	√	√	√
Windows 2000	√	√	√	√	√	√
Windows XP/2003/Vista x86/x64	√	√	√	√	√	√
Windows 2008 x86/x64	√	√	√	√	√	√
Windows CE 5.0	---	---	---	---	---	---
Windows CE 6.0	---	---	---	---	---	---
Windows XP Embedded	√	√	√	√	√	√
DOS	√	√	√	√	√	√
Linux 2.4/2.6	√	√	√	√	√	√
FreeBSD 4/5	√	√	√	√	√	√
QNX 4	√	√	√	√	√	√
QNX 6	√	√	√	√	√	√
SCO Open Server 5/6	√	√	√	√	√	√
UnixWare 7	√	√	√	√	√	√
Environmental Factors						
Dimensions (mm)	85 x 160	110 x 180	110 x 180	75 x 157	105 x 157	105 x 157
Operating Temperature	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C	-20 to 85°C
Regulatory Approvals						
FCC, Part 15 Class	B	B	B	---	---	---
EN55022 Class B	---	---	---	---	---	---
EN55022	√	√	√	√	√	√
EN55024	---	---	---	---	---	---
EN61000-3-2	---	---	---	---	---	---
EN61000-3-3	---	---	---	---	---	---
EN61000-6-2	---	---	---	---	---	---
EN61000-6-4	---	---	---	---	---	---
IEC 61000-4-2	√	√	√	√	√	√
IEC 61000-4-3	√	√	√	√	√	√
IEC 61000-4-4	√	√	√	√	√	√
IEC 61000-4-5	---	---	---	---	---	---
IEC 61000-4-6	---	---	---	---	---	---
IEC 61000-4-8	---	---	---	---	---	---
IEC 61000-4-11	---	---	---	---	---	---
IEC 61000-4-11 (DIPS)	---	---	---	---	---	---
ENV5204	√	√	√	√	√	√
Reliability						
Warranty	5 years (see www.moxa.com/warranty)					

3

Multiport Serial Boards > ISA Serial Boards

PC/104 Modules



	CA-108 CA-108-T	CA-114 CA-114-T	CA-134I CA-134I-T	CA-104 CA-104-T	CA-132 CA-132-T	CA-132I CA-132I-T
Hardware						
Comm. Controller	16C550C or compatible					
Bus	PC/104 bus					
Box Header Connector	40-pin	40-pin	40-pin	40-pin	20-pin	20-pin
Serial Interface						
RS-232 Ports	8	---	---	4	---	---
RS-422 Ports	---	---	---	---	---	---
RS-422/485 Ports	---	---	4	---	2	2
RS-232/422/485 Ports	---	4	---	---	---	---
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark					
Flow Control	---	---	---	---	---	---
Baudrate	50 bps to 921.6 Kbps					
ESD Protection	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV
Optical Isolation	---	---	2 KV	---	---	2 KV
Driver Support						
Windows 9X/ME/NT	✓	✓	✓	✓	✓	✓
Windows 2000	✓	✓	✓	✓	✓	✓
Windows XP/2003/Vista x86/x64	✓	✓	✓	✓	✓	✓
Windows 2008 x86/x64	---	---	---	---	---	---
Windows CE 5.0	✓	✓	✓	✓	✓	✓
Windows CE 6.0	✓	✓	✓	✓	✓	✓
Windows XP Embedded	✓	✓	✓	✓	✓	✓
DOS	✓	✓	✓	✓	✓	✓
Linux 2.4/2.6	✓	✓	✓	✓	✓	✓
FreeBSD 4/5	---	---	---	---	---	---
QNX 4	✓	✓	✓	✓	✓	✓
QNX 6	✓	✓	✓	✓	✓	✓
SCO Open Server 5/6	---	---	---	---	---	---
UnixWare 7	---	---	---	---	---	---
Environmental Factors						
Dimensions (mm)	90 x 96	90 x 96	90 x 96	90 x 96	90 x 96	90 x 96
Operating Temperature	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-40 to 55°C	-40 to 55°C	-40 to 55°C	-40 to 55°C	-40 to 55°C	-40 to 55°C
Regulatory Approvals						
FCC, Part 15 Class	A	A	A	A	A	A
EN55022 Class B	---	---	---	---	---	---
EN55022	✓	✓	✓	✓	✓	✓
EN55024	✓	✓	✓	✓	✓	✓
EN61000-3-2	✓	✓	✓	✓	✓	✓
EN61000-3-3	✓	✓	✓	✓	✓	✓
EN61000-6-2	✓	✓	✓	✓	✓	✓
EN61000-6-4	✓	✓	✓	✓	✓	✓
IEC 61000-4-2	✓	✓	✓	✓	✓	✓
IEC 61000-4-3	✓	✓	✓	✓	✓	✓
IEC 61000-4-4	✓	✓	✓	✓	✓	✓
IEC 61000-4-5	✓	✓	✓	✓	✓	✓
IEC 61000-4-6	✓	✓	✓	✓	✓	✓
IEC 61000-4-8	✓	✓	✓	✓	✓	✓
IEC 61000-4-11	---	---	---	---	---	---
IEC 61000-4-11 (DIPS)	✓	✓	✓	✓	✓	✓
ENV5204	---	---	---	---	---	---
Reliability						
Warranty	5 years (see www.moxa.com/warranty)					

3

Multiport Serial Boards > PC/104 Modules

PC/104-Plus Modules



	CB-108 CB-108-T	CB-114 CB-114-T	CB-134I CB-134I-T
Hardware			
Comm. Controller	MU860 (16C550C compatible)		
Bus	PC/104-Plus bus		
Box Header Connector	40-pin	40-pin	40-pin
Serial Interface			
RS-232 Ports	8	---	---
RS-422 Ports	---	---	---
RS-422/485 Ports	---	---	4
RS-232/422/485 Ports	---	4	---
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark		
Flow Control	---	---	---
Baudrate	50 bps to 921.6 Kbps		
ESD Protection	15 KV	15 KV	15 KV
Optical Isolation	---	---	2 KV
Driver Support			
Windows 9X/ME/NT	---	---	---
Windows 2000	√	√	√
Windows XP/2003/Vista x86/x64	√	√	√
Windows 2008 x86/x64	√	√	√
Windows CE 5.0	√	√	√
Windows CE 6.0	√	√	√
Windows XP Embedded	√	√	√
DOS	√	√	√
Linux 2.4/2.6	√	√	√
FreeBSD 4/5	---	---	---
QNX 4	---	---	---
QNX 6	√	√	√
SCO Open Server 5/6	---	---	---
UnixWare 7	---	---	---
Environmental Factors			
Dimensions (mm)	90 x 96	90 x 96	90 x 96
Operating Temperature	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C	0 to 55°C, or -40 to 85°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-40 to 55°C	-40 to 55°C	-40 to 55°C
Regulatory Approvals			
FCC, Part 15 Class	A	A	A
EN55022 Class B	---	---	---
EN55022	√	√	√
EN55024	√	√	√
EN61000-3-2	√	√	√
EN61000-3-3	√	√	√
EN61000-6-2	√	√	√
EN61000-6-4	√	√	√
IEC 61000-4-2	√	√	√
IEC 61000-4-3	√	√	√
IEC 61000-4-4	√	√	√
IEC 61000-4-5	√	√	√
IEC 61000-4-6	√	√	√
IEC 61000-4-8	√	√	√
IEC 61000-4-11	---	---	---
IEC 61000-4-11 (DIPS)	√	√	√
ENV5204	---	---	---
Reliability			
Warranty	5 years (see www.moxa.com/warranty)		

3

Multiport Serial Boards > PC/104-Plus Modules

USB-to-Serial Converters



	UPort™ 1110	UPort™ 1130	UPort™ 1150	UPort™ 1150I	UPort™ 1250	UPort™ 1250I	UPort™ 1410	UPort™ 1450	UPort™ 1450I
USB Interface									
Compliance	USB 1.0/1.1 compliant, USB 2.0 compatible				USB 1.1/2.0 compliant				
Connector	USB type A			USB type B					
Speed	12 Mbps (Full-Speed USB)				480 Mbps (Hi-Speed USB) and 12 Mbps (Full-Speed USB)				
Serial Interface									
Number of Ports	1 x RS-232	1 x RS-422/485	1 x RS-232/422/485	1 x RS-232/422/485	2 x RS-232/422/485	2 x RS-232/422/485	4 x RS-232	4 x RS-232/422/485	4 x RS-232/422/485
Connector	DB9 male	DB9 male	DB9 male	DB9 male	DB9 male	DB9 male	DB9 male	DB9 male	DB9 male
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark								
Flow Control	Flow Control: RTS/CTS, XON/XOFF								
FIFO	64 bytes	64 bytes	64 bytes	64 bytes	128 bytes	128 bytes	128 bytes	128 bytes	128 bytes
Baudrate	50 bps to 921.6 Kbps								
Embedded ESD Protection	15 KV								
Optical Isolation	---	---	---	2 KV	---	2 KV	---	---	2 KV
Driver Support									
Windows 98/ME	√	√	√	√	---	---	---	---	---
Windows 2000	√	√	√	√	√	√	√	√	√
Windows XP/2003 x86/x64	√	√	√	√	√	√	√	√	√
Windows Vista x86/x64	√	√	√	√	√	√	√	√	√
Windows 2008 x86/x64	---	---	---	---	---	---	---	---	---
WinCE 5.0/6.0	√	√	√	√	√	√	√	√	√
Linux 2.4	√	√	√	√	√	√	√	√	√
Linux 2.6 x86/x64	√	√	√	√	√	√	√	√	√
Physical Characteristics									
Housing	ABS + PC			SECC sheet metal (1 mm), IP30 protection					
Product Weight	65 g			75 g	180 g		720 g		
Packaged Weight	200 g			370 g	370 g	680 g	1320 g		
Dimensions (mm)	38.4 x 60 x 20			52 x 80 x 22	77 x 26 x 111		204 x 30 x 125		
Environmental Limits									
Operating Temperature	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C
Regulatory Approvals									
EMI	FCC Part 15 Class B, EN61000-6-4				FCC, Part 15 Class A, EN61000-6-4				
Safety	---	---	---	---	UL, CUL, TÜV				
EMS	EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN61000-6-2				EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN61000-6-2				
Power Requirements									
Power Consumption	30 mA @ 5 VDC	90 mA @ 5 VDC	77 mA @ 5 VDC	260 mA @ 5 VDC	360 mA @ 5 VDC	200 mA @ 12 VDC	290 mA @ 5 VDC	260 mA @ 12 VDC	360 mA @ 12 VDC
Reliability									
Warranty	5 years (see www.moxa.com/warranty)								

3

Industrial USB > USB-to-Serial Converters

USB-to-Serial Converters



	UPort™ 1610-8	UPort™ 1650-8	UPort™ 1610-16	UPort™ 1650-16	UPort™ 2210	UPort™ 2410	UPort™ 2230	UPort™ 2430
USB Interface								
Compliance	USB 1.0/1.1/2.0 compliant				USB 1.1/2.0 compliant			
Connector	USB type B							
Speed	480 Mbps (Hi-Speed USB) and 12 Mbps (Full-Speed USB)							
Serial Interface								
Number of Ports	8 x RS-232	8 x RS-232/422/485	16 x RS-232	16 x RS-232/422/485	2 x RS-232	4 x RS-232	2 x RS-422/485	4 x RS-422/485
Connector	DB9 male	DB9 male	DB9 male	DB9 male	DB9 male	DB9 male	DB9 male	DB9 male
Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark							
Flow Control	RTS/CTS, XON/XOFF							
FIFO	128 bytes	128 bytes	128 bytes	128 bytes	16 bytes	16 bytes	16 bytes	16 bytes
Baudrate	50 bps to 921.6 Kbps							
Embedded ESD Protection	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV
Optical Isolation	---	---	---	---	---	---	---	---
Driver Support								
Windows 98/ME	---	---	---	---	---	---	---	---
Windows 2000	√	√	√	√	√	√	√	√
Windows XP/2003 x86/x64	√	√	√	√	√	√	√	√
Windows Vista x86/x64	√	√	√	√	√	√	√	√
Windows 2008 x86/x64	---	---	---	---	√	√	√	√
WinCE 5.0/6.0	√	√	√	√	---	---	---	---
Linux 2.4	√	√	√	√	√	√	---	---
Linux 2.6 x86/x64	√	√	√	√	√	√	√	√
Physical Characteristics								
Housing	SECC sheet metal (1 mm), IP30 protection				Polycarbonate (PC)			
Product Weight	835 g	835 g	2475 g	2475 g	120 g	210 g	---	---
Packaged Weight	1440 g	1440 g	3440 g	3440 g	325 g	455 g	---	---
Dimensions (mm)	204 x 44 x 125	204 x 44 x 125	440 x 45.5 x 198.1	440 x 45.5 x 198.1	70 x 35 x 120	80 x 35 x 185	70 x 35 x 120	80 x 35 x 185
Environmental Limits								
Operating Temperature	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C	0 to 55°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C	-20 to 70°C
Regulatory Approvals								
EMI	FCC Part 15 Class A, EN61000-6-4				FCC Part 15 Class B, EN61000-6-4			
Safety	UL, CUL, TÜV				---			
EMS	EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN61000-6-2				EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN61000-6-2			
Power Requirements								
Power Consumption	230 mA @ 12 VDC	340 mA @ 12 VDC	130 mA @ 100 VAC	150 mA @ 100 VAC	140 mA @ 5 VDC	240 mA @ 5 VDC	---	---
Reliability								
Warranty	5 years (see www.moxa.com/warranty)							

USB Hubs



	UPort™ 404	UPort™ 407	UPort™ 404-T	UPort™ 407-T	UPort™ 204	UPort™ 207
USB Interface						
Compliance	USB 1.1/2.0 compliant					
Upstream USB Ports	1 (Type B)					
Downstream USB Ports	4 (Type A)	7 (Type A)	4 (Type A)	7 (Type A)	4 (Type A)	7 (Type A)
Speed	480 Mbps (Hi-Speed USB) and 12 Mbps (Full-Speed USB)					
Supply Current	500 mA max. per channel					
Physical Characteristics						
Housing	Aluminum				Polycarbonate (PC)	
Dimensions (mm)	80 x 35 x 130	100 x 35 x 192	80 x 35 x 130	100 x 35 x 192	80 x 35 x 130	100 x 35 x 195
Environmental Limits						
Operating Temperature	0 to 60°C	0 to 60°C	-40 to 85°C	-40 to 85°C	0 to 60°C	0 to 60°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 75°C	-20 to 75°C	-40 to 85°C	-40 to 85°C	-20 to 75°C	-20 to 75°C
Regulatory Approvals						
EMI	FCC, Part 15 Class A, EN61000-6-4					
Safety	UL508, LVD					
EMS	EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN61000-6-2					
Power Requirements						
Power Consumption	1300 mA @ 12 VDC	2300 mA @ 12 VDC	1300 mA @ 12 VDC	2300 mA @ 12 VDC	1210 mA@ 12 VDC	2170 mA @ 12 VDC
Reliability						
Warranty	5 years (see www.moxa.com/warranty)					

3

Industrial USB > USB Hubs

Chassis Media Converters



	TRC-190-AC TRC-190-DC	TCF-142-M-SC-RM TCF-142-M-ST-RM	TCF-142-S-SC-RM TCF-142-S-ST-RM
Optical Fiber Side			
Fiber Connector	---	SC or ST	SC or ST
Cables Requirements	---	50/125, 62.5/125, or 100/140 μ m	8.3/125, 8.7/125, 9/125, or 10/125 μ m
Transmission Distance	---	5 km	40 km
Wavelength	---	850 nm	1310 nm
Tx Output	---	> -5 dBm	> -5 dBm
Rx Sensitivity	---	-20 dBm	-25 dBm
Point-to-Point Transmission	---	Point-to-Point Transmission: Half-duplex or full-duplex	Point-to-Point Transmission: Half-duplex or full-duplex
RS-232/422/485 Side			
Connector	---	Terminal Block	
RS-232 Signals	---	TxD, Rx D, SGND	
RS-422 Signals	---	TxD+, TxD-, Rx D+, Rx D-, SGND	
RS-485-4w Signals	---	TxD+, TxD-, Rx D+, Rx D-, SGND	
RS-485-2w Signals	---	Data+, Data-, SGND	
Baudrate	---	50 bps to 921.6 Kbps	
ESD Protection	---	15 KV	15 KV
Physical Characteristics			
Housing	SECC (1.2 mm)	SPCC	SPCC
Dimensions (mm)	440 x 260 x 77 mm	86.8 x 136.5 x 21 mm	86.8 x 136.5 x 21 mm
Weight	5.2 kg (11.4 lbs), with one power module installed	---	---
Installation	---	---	---
Number of Slots	19 slots in the front for slide-in modules, 2 slots in the back for power supply modules	---	---
Environmental Limits			
Operating Temperature	0 to 60°C	0 to 60°C	0 to 60°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 75°C	-20 to 75°C	-20 to 75°C
Power Requirements			
Input Voltage	Universal 100 to 240 VAC (47 to 63 Hz)	12 VDC	12 VDC
Power Consumption	5.4 A @ 12 V (max. output) or 12 to 48 VDC	150 mA @ 12 V	150 mA @ 12 V
Regulatory Approvals			
CE	Class B	Class B	
FCC	Part 15 sub part B Class A	Part 15 sub part B Class A	
EMI	EN55022 1998, Class B	---	---
EMS	EN61000-4-2 (ESD), Criteria A, Level 4 EN61000-4-3 (RS), Criteria A, Level 2 EN61000-4-4 (EFT), Criteria A, Level 3 EN61000-4-5 (Surge), Criteria A, Level 3 EN61000-4-6 (CS), Criteria A, Level 2 EN61000-4-8 (PFMF), Criteria A, Level 3 EN61000-4-11 (DIPS), Criteria A	EN61000-4-2 (ESD), Criteria A, Level 4 EN61000-4-3 (RS), Criteria A, Level 2 EN61000-4-4 (EFT), Criteria A, Level 3 EN61000-4-5 (Surge), Criteria A, Level 3 EN61000-4-6 (CS), Criteria A, Level 2 EN61000-4-8 (PFMF), Criteria A, Level 3	
Freefall	---	IEC 60068-2-32	
Reliability			
Warranty	5 years (see www.moxa.com/warranty)		

3

Media Converters > Chassis Media Converters

Serial-to-Fiber Media Converters



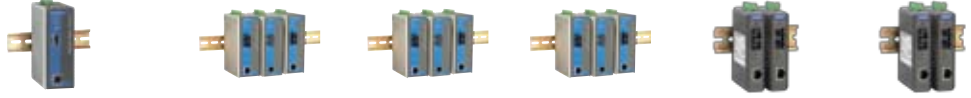
	ICF-1150-M-SC/ST ICF-1150-M-SC/ST-T	ICF-1150I-M-SC/ST ICF-1150I-M-SC/ST-T	ICF-1150-S-SC/ST ICF-1150-S-SC/ST-T	ICF-1150I-S-SC/ST ICF-1150I-S-SC/ST-T	TCF-142-M-SC/ST TCF-142-M-SC/ST-T	TCF-142-S-SC/ST TCF-142-S-SC/ST-T	TCF-90-M/S
Optical Fiber Side							
Fiber Connector	SC or ST	SC or ST	SC or ST		SC or ST	SC or ST	ST
Cables Requirements	Single-mode: 8.3/125, 8.7/125, 9/125, or 10/125 μm Multi-mode: 50/125, 62.5/125, or 100/140 μm						
Transmission Distance	Single-mode: 40 km Multi-mode: 5 km						
Wavelength	Single-mode: 1310 nm Multi-mode: 850 nm						
Tx Output	Single-mode: > -5 dBm Multi-mode: > -5 dBm						
Rx Sensitivity	Single-mode: -25 dBm Multi-mode: -20 dBm						
Point-to-Point Transmission	Half-duplex or full-duplex						---
Multi-drop Transmission	Half-duplex, fiber ring						---
Ring Transmission	---	---	---	---	Half-duplex		---
RS-232 Side							
Connector	---	---	---	---	---	---	DB9 female
Signals	---	---	---	---	---	---	Tx, Rx, GND (Loop-back wiring: RTS to CTS, DTR to DSR and DCD)
Baudrate	---	---	---	---	---	---	300 bps to 115.2 Kbps
RS-232/422/485 Side							
Connector	---	---	---	---	Terminal Block		---
RS-232 Signals	TxD, RxD, SGND						---
RS-422 Signals	TxD+, TxD-, RxD+, RxD-, SGND						---
RS-485-4w Signals	TxD+, TxD-, RxD+, RxD-, SGND						---
RS-485-2w Signals	Data+, Data-, SGND						---
Baudrate	50 bps to 921.6 Kbps						---
ESD Protection	15 KV for all signals						---
Isolation	2 KV RMS isolation per I/O port for 1 minute				---	---	---
Physical Characteristics							
Housing	Aluminum (1 mm)						ABS + PC
Dimensions (mm)	30.3 x 70 x 115				67 x 100 x 22 mm		42 x 80 x 22 mm
Environmental Limits							
Operating Temperature	0 to 60°C or -40 to 85°C						0 to 60°C
Operating Humidity	5 to 95% RH						5 to 95% RH
Storage Temperature	-40 to 85°C						-20 to 75°C
Power Requirements							
Source of Input Power	---	---	---	---	---	---	RS-232 port (TxD signal) or power input jack
Input Voltage	12 to 48 VDC				12 to 48 VDC		12 to 48 VDC
Power Consumption	127 mA @ 12 V	163 mA @ 12 V			140 mA @ 12 V		20 mA @ 5 V (with termination disabled)
Burst Protection (EFT)	4 KV				2 KV		---
Surge Protection	2 KV				2 KV		---
Voltage Reversal Protection	Protects against V+/V- reversal				Protects against V+/V- reversal		---
Over Current Protection	1.1 A				1.1 A		---
Regulatory Approvals							
CE	Class B				---	---	Class B
FCC	Part 15 sub Class B				Part 15 Subclass B		Class B
Safety	UL 508				---	---	---
UL/CUL	---				UL60950-1		---
EMI	EN55022 1998, Class B				EN55022 1998, Class B		---
EMS	EN61000-4-2 (ESD), Criteria A, Level 4 EN61000-4-3 (RS), Criteria A, Level 3 EN61000-4-4 (EFT), Criteria A, Level 4 EN61000-4-5 (Surge), Criteria A, Level 3 EN61000-4-6 (CS), Criteria A, Level 3 EN61000-4-8 (PFMF), Criteria A, Level 5				EN61000-4-2 (ESD), Criteria A, Level 3 EN61000-4-3 (RS), Criteria A, Level 2 EN61000-4-4 (EFT), Criteria A, Level 2 EN61000-4-5 (Surge), Criteria A, Level 3 EN61000-4-6 (CS), Criteria A, Level 2 EN61000-4-8 (SFMF), Criteria A, Level 1		---
ATEX	Class 1, Zone 2, EEx nC IIC (pending)				---	---	---
Hazardous Location	UL/cUL Class 1, Div. 2, Group A, B, C and D (Pending)				---	---	---
TÜV	EN 60950-1				EN60950-1		---
Freefall	IEC 60068-2-32				---	---	---
Water and Dust Proof	IP30				---	---	---
Reliability							
Warranty	5 years (see www.moxa.com/warranty)						

Serial Converters and Repeaters



	TCC-100 TCC-100-T	TCC-100I TCC-100I-T	TCC-80	TCC-80I	TCC-120	TCC-120I	TCC-82
RS-232 Side							
Connector	DB9 female		DB9 female		---	---	---
Signals	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND		TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND (Loop-back wiring: RTS to CTS, DTR to DSR and DCD)		---	---	---
RS-422/485 Side							
Connector	Terminal Block		Terminal Block or DB9 male		---	---	---
Signals	(interface selected by DIP switch) RS-422: TxD+, TxD-, RxD+, RxD-, GND RS-485-4w: TxD+, TxD-, RxD+, RxD-, GND RS-485-2w Signals: Data+, Data-, GND		(interface selected by DIP switch) RS-422: TxD+, TxD-, RxD+, RxD-, GND RS-485-4w: TxD+, TxD-, RxD+, RxD-, GND RS-485-2w Signals: Data+, Data-, GND		---	---	---
RS-485 Data Direction Control	---	---	ADDC®		---	---	---
Serial Communication							
Connectors	---	---	---	---	Terminal Block on both ends		DB9 male/female
Baudrate	50 bps to 921.6 Kbps		50 bps to 921.6 Kbps		50 bps to 921.6 Kbps		50 bps to 921.6 Kbps
Signals	---	---	---	---	RS-422/485-4w: TxD+, TxD-, RxD+, RxD- RS-485-2w: Data+, Data-		RS-232: TxD, RxD, RTS, CTS (Loop-back wiring: DTR to DSR and DCD)
RS-485 Data Direction Control	---	---	---	---	ADDC®		
Pull High Resistance	150K ohm or 1K ohm (default)						
Pull Low Resistance							
ESD Protection	15 KV		15 KV		15 KV for all signals		15 KV for all signals
Optical Isolation	---	2 KV	---	2.5 KV rms for 1 minute	---	2 KV for power and signal	4 KV for 1 minute
Physical Characteristics							
Housing	Aluminum		ABS + PC		Aluminum		ABS
Dimensions (mm)	67 x 100.4 x 22 mm		42 x 80 x 22 mm		67 x 100.4 x 22 mm		42 x 80 x 23.6 mm
Weight	148 ± 5 g		50 ± 5 g		148 ± 5 g		60 ± 5 g
Environmental Limits							
Operating Temperature	-20 to 60°C, or -40 to 85°C		0 to 60°C		-20 to 60°C		0 to 60°C
Operating Humidity	5 to 95% RH		5 to 95% RH		5 to 95% RH		5 to 95% RH
Storage Temperature	-20 to 85°C		-20 to 75°C		-20 to 85°C		-20 to 75°C
Power Requirements							
Source of Input Power	Power input jack		RS-232 port (TxD, RTS, DTR) or power input jack		RS-232 port (TxD signal) or power input jack		RS-232 port (TxD signal) or power input jack
Input Voltage	12 to 48 VDC		5 to 12 VDC		12 to 48 VDC		5 to 12 VDC
Power Consumption	300 mA @ 12 V	400 mA @ 12 V	10 mA @ 5 V (with termination disabled)	20 mA @ 5 V (with termination disabled)	98 mA @ 12 V, 1.18 W	234 mA @ 12 V, 2.81 W	20 mA @ 5 V
Connection	---	---	---	---	---	---	---
Overload Current Protection	---	---	---	---	---	---	---
Reverse Polarity Protection	---	---	---	---	---	---	---
Burst Protection (EFT)	---	---	---	---	---	---	---
Surge Protection	---	---	---	---	---	---	---
Voltage Reversal Protection	Protects against V+/V- reversal		---	---	Protects against V+/V- reversal		---
Over Current Protection	√	√	---	---	√	√	---
Regulatory Approvals							
CE	Class B		Class B		Class B		Class B
FCC	Class B		Class B		Class B		Class B
Reliability							
Warranty	5 years (see www.moxa.com/warranty)						

Ethernet-to-Fiber Media Converters



	IMC-101G INC-101G-T	IMC-101-M-SC/ST IMC-101-M-SC/ST-T	IMC-101-S-SC IMC-101-S-SC-T	IMC-101-S-SC-80 IMC-101-S-SC-80-T	IMC-21-M-SC/ST	IMC-21-S-SC
IEEE Standards						
IEEE 802.3	√	√	√	√	√	√
IEEE 802.3u	√	√	√	√	√	√
IEEE 802.3ab	√	---	---	---	---	---
IEEE 802.3z	√	---	---	---	---	---
IEEE 802.3x	---	---	---	---	√	√
Interface						
RJ45 Ports	10/100/1000BaseT(X)	10/100BaseT(X)			10/100BaseT(X)	
Fiber Ports	Optional 1000BaseSX/LX/LHX/ZX (LC connector)	100BaseFX (SC or ST connectors)			100BaseFX (SC or ST)	
LED Indicators	PWR1, PWR2, FAULT, 10/100M (TP port), 1000M (TP and Fiber port)	PWR1, PWR2, FAULT, 10/100M (TP port), 100M (Fiber port), FDX/COL (Fiber port)			Power, 10/100M (TP port), 100M (fiber port), FDX/COL (fiber port)	
DIP Switches	Port break alarm mask Fault Pass-Through Fiber AN/Force	100BaseFX Full/Half duplex selection, port break alarm mask			TP port's 10/100M, Half/Full modes, and Force/Auto modes, fiber connection's Full/Half mode, Link Fault Pass-Through (LFP)	
Alarm Contact	One relay output with current carrying capacity of 1 A @ 24 VDC	One relay output with current carrying capacity of 1A @ 24 VDC			---	---
Multi-mode Transmission Distance						
1000BaseSX	• 0 to 500 m, 850 nm (50/125 μm, 400 MHz*km) • 0 to 275 m, 850 nm (62.5/125 μm, 200 MHz*km)	---	---	---	---	---
1000BaseLX	• 0 to 1100 m, 1310 nm (50/125 μm, 800 MHz*km) • 0 to 550 m, 1310 nm (62.5/125 μm, 500 MHz*km)	---	---	---	---	---
Single-mode Transmission Distance						
1000BaseLX	0 to 10 km, 1310 nm (9/125 μm, 3.5 PS/(nm*km))				---	---
1000BaseLHX	0 to 40 km, 1310 nm (9/125 μm, 3.5 PS/(nm*km))				---	---
1000BaseZX	0 to 80 km, 1550 nm (9/125 μm, 19 PS/(nm*km))				---	---
Physical Characteristics						
Housing	Metal (IP30)	Metal (IP30)			Plastic (IP30)	
Dimensions (mm)	53.6 x 135 x 105 mm	53.6 x 135 x 105 mm			25 x 109 x 97 mm	
Weight	630 g	630 g			125 g	
Installation	DIN-Rail mounting, wall mounting (with optional kit)			DIN-Rail mounting		
Environmental Limits						
Operating Temperature	0 to 60°C or -40 to 75°C				0 to 60°C	
Operating Humidity	5 to 95% RH				5 to 95% RH	
Storage Temperature	-40 to 85°C				-40 to 70°C	
Power Requirements						
Input Voltage	24 VDC (12 to 45 VDC), redundant inputs				12 to 45 VDC, 18 to 30 VAC (47-63 Hz)	
Input Current	0.11A (@ 24 V)	0.16A (@ 24 V)			0.15 A (@ 24 V)	
Connection	Removable terminal block				Removable 3-contact terminal block	
Overload Current Protection	1.1 A				1.1 A	
Reverse Polarity Protection	√	√	√	√	√	√
Regulatory Approvals						
Safety	UL508	UL508 UL60950-1 CSA C22.2 No. 60950-1 EN60950-1			UL508 UL60950-1 CSA C22.2 No. 60950-1 EN60950-1	
EMI	FCC Part 15, CISPR (EN55022) class A				FCC Part 15, CISPR (EN55022) class A	
EMS	EN61000-4-2 (ESD), level 3 EN61000-4-3 (RS), level 3 EN61000-4-4 (EFT), level 3 EN61000-4-5 (Surge), level 3 EN61000-4-6 (CS), level 3 EN61000-4-8 EN61000-4-11				EN61000-4-2 (ESD) EN61000-4-3 (RS) EN61000-4-4 (EFT) EN61000-4-5 (Surge) EN61000-4-6 (CS)	
Hazardous Location	---	UL/cUL Class1, Division 2, Groups A, B, C, and D, ATEX Class1, Zone 2, Ex nC IIC (IMC-101-M-ST, IMC-101-S-SC-80 pending)			---	---
Freefall	IEC60068-2-32				IEC60068-2-32	
Shock	IEC60068-2-27				IEC60068-2-27	
Vibration	IEC60068-2-6				IEC60068-2-6	
Maritime	---	DNV, GL			---	---
MTBF	500,000 hrs	401,000 hrs			353,000 hrs	
Reliability						
Warranty	5 years (see www.moxa.com/warranty)					

Industrial AP/Bridge/Client Solutions



	AWK-4222-T	AWK-4121-T	AWK-3222 AWK-3222-T	AWK-3121 AWK-3121-T
WLAN				
IEEE Standards	IEEE 802.11a/b/g/i, IEEE 802.3a/u, IEEE 802.3af			
Spread Spectrum and Modulation (typical)	• DSSS with DBPSK, DQPSK, CCK • OFDM with BPSK, QPSK, 16QAM, 64QAM 64QAM @ 54Mbps, 16QAM @ 24/36Mbps, QPSK @ 12/18Mbps CCK @ 11/5.5Mbps, DQPSK @ 2Mbps, DBSK@ 1Mbps			
Operating Channels (central frequency)	US: 2.412 to 2.462 GHz (11 channels); 5.18 to 5.24 GHz (4 channels) EU: 2.412 to 2.472 GHz (13 channels); 5.18 to 5.24 GHz (4 channels) JP: 2.412 to 2.472 GHz (13 channels, OFDM); 2.412 to 2.484 GHz (14 channels, DSSS); 5.18 to 5.24 GHz (4 channels for W52)			
Number of RF modules	2	1	2	1
Interfaces				
Number of Antenna Connectors	4	2	4	2
Antenna Connector Type	N-type (female)	N-type (female)	RP-SMA (female)	RP-SMA (female)
10/100BaseT(X) LAN Port	2	1	2	1
RS-232 Console Port	1, waterproof RJ-45	1, waterproof RJ-45	1, RJ-45	1, RJ-45
LED Indicators	PWR, FAULT, STATE, WLAN1, WLAN2, LAN1, LAN2	PWR, FAULT, STATE, WLAN, LAN	PWR1, PWR2, PoE, FAULT, STATE, WLAN1, WLAN2, 10M, 100M	PWR1, PWR2, PoE, FAULT, STATE, signal strength, CLIENT MODE, BRIDGE MODE, WLAN, 10M, 100M
Alarm Contact (Digital Output)	1	1	1	1
Digital Inputs	2	2	2	2
DI/DO Connector Type	8-pin M12 (A-coding)		10-pin terminal block	
Physical Characteristics				
Housing	Metal (IP67)	Metal (IP67)	Metal (IP30)	Metal (IP30)
Weight	1.22 kg	1.2 kg	880 g	850 g
Dimensions	224 x 147.7 x 66.5 mm		62.05 x 135 x 105 mm	53.6 x 135 x 105 mm
Installation	Wall mounting (standard), DIN-Rail mounting (optional), pole mounting (optional)	Wall mounting (standard), DIN-Rail mounting (optional), pole mounting (optional)	DIN-Rail mounting (standard), Wall mounting (optional)	DIN-Rail mounting (standard), Wall mounting (optional)
Environmental Limits				
Operating Temperature	-40 to 75°C	-40 to 75°C	0 to 60°C or -40 to 75°C	0 to 60°C or -40 to 75°C
Operating Humidity	5% to 95%	5% to 95%	5% to 95%	5% to 95%
Storage Temperature	-40 to 85°C	-40 to 85°C	-40 to 85°C	-40 to 85°C
Power Requirements				
Input Voltage	Redundant dual power inputs (12 to 48 VDC)			
Connector	5-pin M12 (A-coding)		10-pin terminal block	
IEEE 802.3af 48 VDC PoE	√	√	√	√
Reverse Polarity Protection	√	√	√	√
Regulatory Approvals				
Radio	EN300 328, EN301 893, ARIB STD-33/T66/T71 (Japan)			
EMC	EN301 489-1/-17, FCC Part 15, EN55022, EN55024	EN301 489-1/-17, FCC Part 15, EN55022, EN55024, IEC61000-6-2/-4	EN301 489-1/-17, FCC Part 15, EN55022, EN55024	EN301 489-1/-17, FCC Part 15, EN55022, EN55024, IEC61000-6-2/-4
Safety	---	EN60950-1, UL60950-1	---	EN60950-1, UL60950-1
Environment/EMC compliance	---	EN50155, EN50121-4	---	EN50155, EN50121-4
Reliability				
Warranty	5 years (see www.moxa.com/warranty)			

Wireless Serial Device Servers



	NPort® W2004	NPort® W2150 Plus NPort® W2150 Plus-T	NPort® 2250 Plus NPort® 2250 Plus-T
WLAN Interface			
IEEE 802.11b/g	√	---	---
IEEE 802.11a/g/b	---	√	√
Radio Frequency Type	DSSS/OFDM	DSSS/OFDM	DSSS/OFDM
WEP	64/128-bit data encryption		
WPA, WPA2, 802.11i	Enterprise mode and Pre-Share Key (PSK) mode		
Encryption	---	128-bit TKIP/AES-CCMP EAP-TLS, PEAP/GTC, PEAP/MD5, PEAP/MSCHAPV2, EAP-TTLS/PAP, EAP-TTLS/CHAP, EAP-TTLS/MSCHAP, EAP-TTLS/MSCHAPV2, EAP-TTLS/EAP-MSCHAPV2, EAP-TTLS/EAP-GTC, EAP-TTLS/EAP-MD5, LEAP	
Max. Transmission Rate	54 Mbps	54 Mbps	54 Mbps
Max. Transmission Distance	300 m	100 m	100 m
LAN Interface			
Ethernet Ports	1 x 10/100 Mbps (RJ45)	1 x 10/100 Mbps (RJ45)	1 x 10/100 Mbps (RJ45)
1.5 KV Magnetic Isolation Protection	√	√	√
Serial Interface			
Number of Ports	4	1	2
Serial Standards	RS-232/422/485	RS-232/422/485	RS-232/422/485
Connector	RJ45	DB9-M	DB9-M
Console Port	√	---	---
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark
Flow Control	RTS/CTS, XON/XOFF, DTR/DSR	RTS/CTS, XON/XOFF	RTS/CTS, XON/XOFF
Baudrate	50 bps to 460.8 Kbps	50 bps to 921.6 Kbps	50 bps to 921.6 Kbps
Serial Data Log	64 KB	64 KB	64 KB
Software			
Network Protocols	ICMP, IP, TCP, UDP, DHCP, Telnet, DNS, SNMP V1/V2c, HTTP, SMTP, SNTP, SSH, HTTPS		
Configuration Options	Web Console, Serial Console, Telnet Console, Windows Utility		
Management	---	SNMP MIB-II	SNMP MIB-II
Secure Configuration Options	HTTPS, SSH	HTTPS, SSH	HTTPS, SSH
Utilities	NPort® Search Utility and NPort® Windows Driver manager		
Windows Real COM Drivers	Windows 95, 98, ME, NT, 2000, XP x86/x64, 2003 x86/x64, Vista x86/x64, 2008 x86/x64, Embedded CE 5.0/6.0, XP Embedded		
Fixed TTY Drivers	SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i		
Linux Real TTY Drivers	Linux 2.4.x/2.6.x		
Physical Characteristics			
Housing	Metal (IP30)	Aluminum	
Weight	1730 g	780 g	
Dimensions	45.8 x 135 x 105 mm	77 x 111 x 26 mm	
Environmental Limits			
Operating Temperature	0 to 60°C	0 to 55°C or -40 to 75°C	
Operating Humidity	5% to 95%	5% to 95%	
Storage Temperature	-20 to 85°C	-40 to 85°C	
Power Requirements			
Input Voltage	12 to 48 VDC	12 to 48 VDC	
Power Consumption	685 mA @ 12 V, 340 mA @ 24 V, 185 mA @ 48 V	560 mA @ 12 V, 294 mA @ 24 V, 162 mA @ 48 V	
Regulatory Approvals			
Safety	UL (UL60950-1), TÜV (EN60950-1)	UL (UL60950-1), TUV (EN60950-1)	
Radio	CE (ETSI EN 300 328)	CE (ETSI EN 301 893, ETSI EN 300 328), ARIB RCR STD-33, ARIB STD-66	
EMC	CE (EN55022 and EN55024 Class A, ETSI EN 301 489-17, ETSI EN 301 489-1)	CE (EN55022 and EN55024 Class A, ETSI EN 301 489-17, ETSI EN 301 489-1)	
EMI	FCC (Part 15 Subpart B Class A, Subpart C)	FCC Part 15 (Subpart B Class A, Subpart C, Subpart E), VCCI	
Reliability			
MTBF	81,501 hrs	352,547 hrs	352,034 hrs
Warranty	5 years (see www.moxa.com/warranty)		

3

Cellular Routers and IP Gateways



	OnCell 5004-HSDPA	OnCell 5104-HSDPA	OnCell 5004	OnCell 5104	OnCell G3110-HSDPA	OnCell G3150-HSDPA	OnCell G3110	OnCell G3150
Cellular Interface								
Standards	UMTS/HSDPA		GSM/GPRS		UMTS/HSDPA		GSM/GPRS/EDGE	
Tri-band Options	850/1900/2100 MHz		---	---	850/1900/2100 MHz		---	---
Quad-band Options	850/900/1800/1900 MHz		850/900/1800/1900 Mhz		850/900/1800/1900 MHz			
EDGE Multi-slot	Class 10	Class 10	---	---	Class 10	Class 10	Class 12	Class 12
EDGE Terminal Device	Class B	Class B	---	---	Class B	Class B	Class B	Class B
GPRS Multi-slot	Class 10	Class 10	Class 10	Class 10	Class 10	Class 10	Class 12	Class 12
GPRS Terminal Device	Class B	Class B	Class B	Class B	Class B	Class B	Class B	Class B
GPRS Coding Schemes	CS1 to CS4	CS1 to CS4	CS1 to CS4	CS1 to CS4	CS1 to CS4	CS1 to CS4	CS1 to CS4	CS1 to CS4
WAN Interface								
Number of Ports	1	1	1	1	---	---	---	---
Ethernet	10/100M (RJ45)	10/100M (RJ45)	10/100M (RJ45)	10/100M (RJ45)	---	---	---	---
Isolation	1.5 KV Magnetic Isolation Protection				---	---	---	---
LAN Interface								
Number of Ports	4	4	4	4	1	1	1	1
Ethernet	10/100M (RJ45)	10/100M (RJ45)	10/100M (RJ45)	10/100M (RJ45)	10/100M (RJ45)	10/100M (RJ45)	10/100M (RJ45)	10/100M (RJ45)
Isolation	1.5 KV Magnetic Isolation Protection							
SIM Interface								
Number of SIMs	2	2	2	2	1	1	1	1
SIM Control	3 V	3 V	3 V	3 V	3 V	3 V	3 V	3 V
Serial Interface								
Number of Ports	---	---	---	---	1	1	1	1
Serial Standards	---	---	---	---	RS-232	RS-232/422/485	RS-232	RS-232/422/485
Connector	---	---	---	---	DB9-M	DB9-M and TB	DB9-M	DB9-M and TB
15 KV ESD Protection	---	---	---	---	√	√	√	√
2 KV Power EFT/Surge	---	---	---	---	√	√	√	√
Serial Parameters	---	---	---	---	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark			
Flow Control	---	---	---	---	RTS/CTS, XON/XOFF			
Baudrate	---	---	---	---	50 bps to 921.6 Kbps			
I/O Interface								
Alarm Contacts	---	1	---	1	1	1	1	1
Digital Inputs	---	2	---	2	2	2	2	2
Software								
Network Protocols	UDP/TCP, SNTP, ICMP, DDNS, DHCP/BOOTP, PPPoE, PPP, DNS Relay, HTTPS, Telnet				ICMP, TCP/IP, UDP, DHCP, Telnet, DNS, SNMP, HTTP, SMTP, HTTPS, SNTP, ARP, SSL			
Router/Firewall	NAT, port forwarding, routing				NAT, port forwarding			
Authentication	Local user-name and password				Local user-name and password			
Security	IP filtering				Accessible IP list			
Operation Modes	---	---	---	---	Real COM, Secure Real COM, TCP Server, Secure TCP Server, TCP Client, Secure TCP Client, UDP, RFC2217, Ethernet Modem, Virtual Modem, SMS Tunnel			
Configuration and Management Options	---	---	---	---	SNMP MIB-II, SNMP Private MIB, SNMPv1/v2c/v3, DDNS, IP Report, Web/Telnet/Serial-Console/SSH			
Utilities	---	---	---	---	Provided for Windows 95/98/ME, Windows NT, Windows 2000/XP/2003/Vista/Server-2008, Windows XP/2003/Vista/Server-2008 x64 Edition			
Windows Real COM Drivers	---	---	---	---	Windows 95/98/ME, Windows NT, Windows 2000/XP/2003/Vista/Server 2008, Windows XP/2003/Vista/Server 2008 x64 Edition			
Fixed TTY Drivers	---	---	---	---	SCO Unix, SCO OpenServer 5, SCO OpenServer 6, UnixWare 7, SVR4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD 5, FreeBSD 6			
Linux Real TTY Drivers	---	---	---	---	Linux kernels 2.2.x, 2.4.x, 2.6.x			
OnCell Central	---	---	---	---	Centralized management solution for accessing private IPs from the Internet			
Physical Characteristics								
Housing	Aluminum (IP30)	Aluminum (IP30)	Aluminum (IP30)	Aluminum (IP30)	Aluminum (IP30)			
Weight	505±5 g	645±5 g	505±5 g	645±5 g	440±5 g			
Dimensions (mm)	158 x 103 x 34	160 x 103 x 50	158 x 103 x 34	160 x 103 x 50	28 x 126 x 93			
Environmental Limits								
Operating Temperature	-30 to 55°C	-30 to 55°C	-30 to 55°C	-30 to 55°C	-30 to 55°C	-30 to 55°C	-30 to 55°C	-30 to 55°C
Operating Humidity	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%
Storage Temperature	-40 to 75°C	-40 to 75°C	-40 to 75°C	-40 to 75°C	-40 to 75°C	-40 to 75°C	-40 to 75°C	-40 to 75°C
Power Requirements								
Input Voltage	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC
Connector	1 TB, 1 power jack	2 TBs	1 TB, 1 power jack	2 TBs	2 TBs	2 TBs	2 TBs	2 TBs
Regulatory Approvals								
Safety	UL (UL60950-1)							
RF	FCC part22H, FCC PART24F, EN301 489-1, EN301 489-7, EN301 511							
PTCRB	---	---	---	---	---	V	---	V
EMC	CE: EN55022 Class A / EN55024. FCC: FCC part 15 subpart B. Class A, EN61000-4-2 (ESD) Level 4, EN61000-4-3 (RS) Level 3, EN61000-4-4 (EFT) Level 4, EN61000-4-5 (Surge) Level 3, EN61000-4-8 Level 3, EN61000-4-12 Level 3							
Reliability								
Warranty	5 years (see www.moxa.com/warranty)							

Cellular IP and GSM/GPRS Modems



	OnCell G3111	OnCell 3151	OnCell 3211	OnCell 3251	OnCell G2100 OnCell G2100-T	OnCell G2150I
Cellular Interface						
Standards	GSM/GPRS	GSM/GPRS	GSM/GPRS	GSM/GPRS	GSM/GPRS	GSM/GPRS
Quad-band Options	850/900/1800/1900 MHz					
GPRS Multi-slot Class	Class 10	Class 10	Class 10	Class 10	Class 10	Class 10
GPRS Terminal Device Class	Class B	Class B	Class B	Class B	Class B	Class B
GPRS Coding Schemes	CS1 to CS4	CS1 to CS4	CS1 to CS4	CS1 to CS4	CS1 to CS4	CS1 to CS4
LAN Interface						
Number of Ports	1	1	1	1	---	---
Ethernet	10/100 Mbps (RJ45)	10/100 Mbps (RJ45)	10/100 Mbps (RJ45)	10/100 Mbps (RJ45)	---	---
1.5 KV Magnetic Isolation Protection	√	√	√	√	---	---
SIM Interface						
Number of SIMs	1	1	1	1	1	1
SIM Control	3 V	3 V	3 V	3 V	3 V	3 V
Serial Interface						
Number of Ports	1	1	2	2	1	1
Serial Standards	RS-232	RS-232/422/485	RS-232	RS-232/422/485	RS-232	RS-232/422/485
Connector	DB9-M	DB9-M	DB9-M	DB9-M	DB9-F	DB9-F and 5-pin TB
15 KV ESD Protection	√	√	√	√	√	√
2.5 KV Optical Isolation	---	---	---	---	---	√
2 KV Power EFT/Surge	√	√	√	√	---	---
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark				Data Bits: 7, 8; Stop Bits: 1, 2; Parity: None, Even, Odd, Space, Mark	
Flow Control	RTS/CTS, XON/XOFF				RTS/CTS	
Baudrate	50 bps to 921.6 Kbps				300 bps to 115.2 Kbps	
Software						
Network Protocols	ICMP, TCP/IP, UDP, DHCP, Telnet, DNS, SNMP, HTTP, HTTPS, SMTP, SNTP, ARP				---	
Authentication	Local user-name and password				---	
Security	Accessible IP list				---	
Operation Modes	Real COM, TCP Server, TCP Client, UDP, SMS Tunnel, Reverse Real COM				---	
Configuration and Management Options	SNMP MIB-II, v3, DDNS, IP Report, Web/Telnet/Serial Console, Serial Logging				---	
Utilities	Provided for Windows 95/98/ME, Windows NT, Windows 2000/XP/2003/Vista/Server-2008, Windows XP/2003/Vista/Server-2008 x64				---	
Windows Real COM Drivers	Windows 95/98/ME, Windows NT, Windows 2000/XP/2003/Vista/Server-2008, Windows XP/2003/Vista/Server-2008 x64				---	
Management Software						
OnCell Central	Centralized management solution for accessing private IPs from the Internet				---	
Physical Characteristics						
Housing	Aluminum (IP30)				ABS + PC (IP30)	
Weight	165±5 g		185±5 g		150 ± 5 g	
Dimensions	111 x 77 x 26 mm				27 x 123 x 79 mm	
Environmental Limits						
Operating Temperature	-30 to 55°C	-30 to 55°C	-30 to 55°C	-30 to 55°C	0 to 55°C or -30 to 75°C	0 to 55°C
Operating Humidity	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%
Storage Temperature	-40 to 75°C	-40 to 75°C	-40 to 75°C	-40 to 75°C	-40 to 75°C	-40 to 75°C
Power Requirements						
Input Voltage	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC	12 to 48 VDC
Connector	1 power jack	1 power jack	1 power jack	1 power jack	1 power jack	1 power jack
Regulatory Approvals						
Safety	UL (UL60950-1)					
RF	FCC part22H, FCC PART24F, EN301 489-1, EN301 489-7, EN301 511					
EMC	CE: EN55022 Class A / EN55024 FCC: FCC part 15 subpart B, Class A EN61000-4-2 (ESD) EN61000-4-3 (RS) EN61000-4-4 (EFT) EN61000-4-5 (Surge) EN61000-4-8 EN61000-4-12				CE (EN55022 Class A, EN55024) FCC part 15 subpart B Class A	
Reliability						
Warranty	5 years (see www.moxa.com/warranty)					

Wallmount Computers



	V462-CE V462-T-CE	V462-XPE V462-T-XPE	V464-CE V464-T-CE	V464-XPE V464-T-XPE	V466-CE V466-T-CE	V466-XPE V466-T-XPE	V468-CE V468-T-CE	V468-XPE V468-T-XPE	V481-CE V481-T-CE	V481-XPE V481-T-XPE
Computer										
CPU Speed	500 MHz	500 MHz	500 MHz	500 MHz	500 MHz	500 MHz	500 MHz	500 MHz	1 GHz	1 GHz
OS (pre-installed)	WinCE 6.0	WinXP Emb.	WinCE 6.0	WinXP Emb.	WinCE 6.0	WinXP Emb.	WinCE 6.0	WinXP Emb.	WinCE 5.0	WinXP Emb.
DRAM	---	---	---	---	---	---	---	---	---	---
SRAM	256 KB	256 KB	256 KB	256 KB	256 KB	256 KB	256 KB	256 KB	---	---
FSB	400 MHz	400 MHz	400 MHz	400 MHz	400 MHz	400 MHz	400 MHz	400 MHz	400 MHz	400 MHz
Flash	---	---	---	---	---	---	---	---	---	---
System Memory	256 MB (1 GB max.)	512 MB (1 GB max.)	256 MB (1 GB max.)	512 MB (1 GB max.)	256 MB (1 GB max.)	512 MB (1 GB max.)	256 MB (1 GB max.)	512 MB (1 GB max.)	256 MB (1 GB max.)	512 MB (1 GB max.)
PCMCIA	√	√	---	---	---	---	---	---	---	---
Expansion Bus	PC/104-Plus onboard									
USB Ports	4 (USB 2.0)	4 (USB 2.0)	4 (USB 2.0)	4 (USB 2.0)	4 (USB 2.0)	4 (USB 2.0)	4 (USB 2.0)	4 (USB 2.0)	2 (USB 2.0)	2 (USB 2.0)
Digital I/O	---	---	---	---	---	---	8 Dis, 8 DOs	8 Dis, 8 DOs	---	---
Storage										
Built-in	256 MB	1 GB	256 MB	1 GB	256 MB	1 GB	256 MB	1 GB	256 MB	1 GB
CompactFlash Socket	√	√	√	√	√	√	√	√	√	√
SD Slot	---	---	---	---	---	---	---	---	---	---
Other Peripherals										
KB/MS	1 PS/2 interface supporting standard PS/2 keyboard and mouse through Y-type cable									
Audio	AC97 audio, with speaker-out interface									
Display										
Graphics Controller	√	√	√	√	√	√	√	√	√	√
Mini Screen with Push Buttons	---	---	---	---	---	---	---	---	---	---
LAN Interface										
10/100 Mbps Ethernet Ports	2	2	4	4	4	4	4	4	1	1
10/100/1000 Mbps Ethernet Ports	---	---	---	---	---	---	---	---	1	1
Switch Ports	---	---	---	---	8	8	---	---	---	---
Controller	Realtek RTL8100CL								---	---
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface										
RS-232 Ports	2 (DB9 male)	2 (DB9 male)	2 (DB9 male)	2 (DB9 male)	2 (DB9 male)	2 (DB9 male)	2 (DB9 male)	2 (DB9 male)	---	---
RS-485	---	---	---	---	---	---	---	---	---	---
RS-232/422/485 Ports	2 (DB9-M)	2 (DB9-M)	2 (DB9-M)	2 (DB9-M)	2 (DB9-M)	2 (DB9-M)	2 (DB9-M)	2 (DB9-M)	8 (DB9-M)	8 (DB9-M)
ESD Protection	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV
Digital Isolation	---	---	---	---	---	---	---	---	---	---
Console Port	---	---	---	---	---	---	---	---	---	---
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark									
Flow Control	RTS/CTS, XON/XOFF, ADDC®									
Baudrate	50 bps to 921.6 Kbps (non-standard baudrates supported)									
CANbus	---	---	---	---	---	---	---	---	---	---
LEDs										
System	Power, Battery, Storage								Power, Storage	
LAN	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M, Switch		10M, 100M	10M, 100M	10M, 100M	10M, 100M
Serial	---	---	---	---	---	---	---	---	---	---
Physical Characteristics										
Housing	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Weight	1.32 kg	1.32 kg	1.32 kg	1.32 kg	1.32 kg	1.32 kg	1.32 kg	1.32 kg	2.2 kg	2.2 kg
Dimensions	223 x 120.5 x 57 mm								225 x 140 x 70 mm	
Mounting	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall
Environmental Limits										
Operating Temperature	-10 to 60°C or -40 to 75°C								-10 to 60°C or -35 to 75°C	
Operating Humidity	5 to 95% RH									
Storage Temperature	-20 to 80°C or -40 to 85°C									
Anti Vibration/Shock	---	---	---	---	---	---	---	---	---	---
Regulatory Approvals										
EMC	CE (EN55022 Class A, EN61000-3-2 Class A, EN61000-3-3, EN55024), FCC (Part 15 Subpart B, CISPR 22 Class A), CCC (GB9254, GB 17625.1)									
Safety	UL/cUL (UL60950-1, CSA C22.2 No. 60950-1-03), LVD, CCC (GB4943)								UL/cUL (UL60950-1, CSA C22.2 No. 60950-1-03), LVD (EN60950-1), CCC (GB4943)	
Green Product	---	---	RoHS, WEEE							
Reliability										
Buzzer, RTC, WDT	√	√	√	√	√	√	√	√	√	√
Warranty	5 years (see www.moxa.com/warranty)									

Wallmount Computers



	UC-8410-LX UC-8410-T-LX	UC-8416-LX UC-8416-T-LX	UC-8418-LX UC-8418-T-LX	UC-7402-LX	UC-7402-LX Plus	UC-7408-LX UC-7408-T-LX	UC-7408-LX Plus UC-7408-T-LX Plus	UC-7408-OE UC-7408-T-CE	UC-7410-LX	UC-7410- LX Plus
Computer										
CPU Speed	533 MHz	533 MHz	533 MHz	266 MHz	533 MHz	266 MHz	533 MHz	266 MHz	266 MHz	533 MHz
OS (pre-installed)	Linux			Embedded Linux				WinCE 5.0	Embedded Linux	
DRAM	256 MB	256 MB	256 MB	256 MB	256 MB	256 MB	256 MB	256 MB	256 MB	256 MB
SRAM	---	---	---	---	---	---	---	---	---	---
FSB	---	---	---	---	---	---	---	---	---	---
Flash	16 MB (OS); 32 MB (data)	16 MB (OS); 32 MB (data)	16 MB (OS); 32 MB (data)	32 MB	32 MB	32 MB	32 MB	32 MB	32 MB	32 MB
System Memory	---	---	---	---	---	---	---	---	---	---
PCMCIA	---	---	---	√	√	√	√	√	---	---
Expansion Bus	---	---	---	---	---	---	---	---	---	---
USB Ports	---	---	---	---	---	---	---	---	---	---
Digital I/O	4 DIs, 4 DOs	4 DIs, 4 DOs	12 DIs, 12 DOs	---	---	8 DIs, 8 DOs	8 DIs, 8 DOs	8 DIs, 8 DOs	---	---
Storage										
Built-in	---	---	---	---	---	---	---	---	---	---
CompactFlash Socket	√	√	√	√	√	√	√	√	---	---
SD Slot	---	---	---	---	---	---	---	---	---	---
Other Peripherals										
KB/MS	---	---	---	---	---	---	---	---	---	---
Audio	---	---	---	---	---	---	---	---	---	---
Display										
Graphics Controller	---	---	---	---	---	---	---	---	---	---
Mini Screen with Push Buttons	---	---	---	---	---	---	---	---	√	√
LAN Interface										
10/100 Mbps Ethernet Ports	3	3	3	2	2	2	2	2	2	2
10/100/1000 Mbps Ethernet Ports	---	---	---	---	---	---	---	---	---	---
Switch Ports	---	8	---	---	---	---	---	---	---	---
Controller	---	---	---	---	---	---	---	---	---	---
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface										
RS-232 Ports	---	---	---	---	---	---	---	---	---	---
RS-485	---	---	---	---	---	---	---	---	---	---
RS-232/422/485 Ports	8 (RJ45)	8 (RJ45)	8 (RJ45)	---	---	8 (RJ45)	8 (RJ45)	8 (RJ45)	8 (RJ45)	8 (RJ45)
ESD Protection	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV
Digital Isolation	---	---	---	---	---	---	---	---	---	---
Console Port	√	√	√	√	√	√	√	√	√	√
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark			---		Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark				
Flow Control	RTS/CTS, XON/XOFF, ADDC®			---		RTS/CTS, XON/XOFF, ADDC®				
Baudrate	50 bps to 921.6 Kbps (non-standard baudrates supported)			---		50 bps to 921.6 Kbps (non-standard baudrates supported)				
CANbus	---	---	2 (DB9-M)	---	---	---	---	---	---	---
LEDs										
System	Power, Ready, Storage, Battery			OS Ready						
LAN	10M, 100M			10M, 100M						
Serial	Tx/D, Rx/D			Tx/D, Rx/D						
Physical Characteristics										
Housing	SECC sheet metal (1 mm)									
Weight	850 g	930 g	1 kg	830 g	830 g	870 g	870 g	870 g	810 g	810 g
Dimensions	200 x 36.5 x 120 mm	200 x 56 x 120 mm		197 x 44 x 125 mm						
Mounting	DIN-Rail, wall			DIN-Rail, wall						
Environmental Limits										
Operating Temperature	-10 to 60°C or -40 to 75°C			-10 to 60°C		-10 to 60°C or -40 to 75°C			-10 to 60°C	
Operating Humidity	5 to 95% RH			5 to 95% RH		5 to 95% RH			5 to 95% RH	
Storage Temperature	-20 to 80°C or -40 to 85°C			-20 to 80°C		-20 to 80°C			-20 to 80°C	
Anti Vibration/Shock	1g/5g	1g/5g	1g/5g	1g/5g	1g/5g	1g/5g	1g/5g	1g/5g	1g/5g	1g/5g
Regulatory Approvals										
EMC	CE (EN55022 Class B, EN55024-4-2, EN55024-4-3, EN55024-4-4), FCC (Part 15 Subpart B, Class B)			CE (EN55022 Class A, EN61000-3-2 Class A, EN61000-3-3, EN55024), FCC (Part 15 Subpart B, CISPR 22 Class A)						
Safety	UL/cUL (UL60950-1), CCC, LVD			UL/cUL (UL60950-1, CSA C22.2 No. 60950-1-03), TÜV (EN60950-1)						
Green Product	RoHS, CRoHS, WEEE									
Reliability										
Buzzer, RTC, WDT	√	√	√	√	√	√	√	√	√	√
Warranty	5 years (see www.moxa.com/warranty)									

3

Embedded Computers for Communication > Wallmount Computers

Wallmount Computers



	UC-7420-LX	UC-7420-LX Plus	UC-7410-CE	UC-7420-CE	UC-7122-CE UC-7122-T-CE	UC-7124-CE UC-7124-T-CE	UC-7110-LX UC-7110-T-LX	UC-7112-LX	UC-7112-LX Plus	UC-7101-LX UC-7101-T-LX
Computer										
CPU Speed	266 MHz	533 MHz	266 MHz	533 MHz	200 MHz	200 MHz	192 MHz	192 MHz	192 MHz	192 MHz
OS (pre-installed)	Embedded Linux		WinCE 5.0				µClinux		Linux	µClinux
DRAM	128 MB	128 MB	128 MB	128 MB	32 MB	32 MB	16 MB	16 MB	32 MB	16 MB
SRAM	---	---	---	---	---	---	---	---	---	---
FSB	---	---	---	---	---	---	---	---	---	---
Flash	32 MB	32 MB	32 MB	32 MB	16 MB	16 MB	8 MB	8 MB	16 MB	8 MB
System Memory	---	---	---	---	---	---	---	---	---	---
PCMCIA	√	√	---	√	---	---	---	---	---	---
Expansion Bus	---	---	---	---	---	---	---	---	---	---
USB Ports	---	---	---	---	---	---	---	---	---	---
Digital I/O	---	---	---	---	---	---	---	---	---	---
Storage										
Built-in	---	---	---	---	---	---	---	---	---	---
CompactFlash Socket	√	√	---	√	---	---	---	---	---	---
SD Slot	---	---	---	---	√	√	---	√	√	√
Other Peripherals										
KB/MS	---	---	---	---	---	---	---	---	---	---
Audio	---	---	---	---	---	---	---	---	---	---
Display										
Graphics Controller	---	---	---	---	---	---	---	---	---	---
Mini Screen with Push Buttons	√	√	√	√	---	---	---	---	---	---
LAN Interface										
10/100 Mbps Ethernet Ports	2	2	2	2	2	2	2	2	2	1
10/100/1000 Mbps Ethernet Ports	---	---	---	---	---	---	---	---	---	---
Switch Ports	---	---	---	---	---	---	---	---	---	---
Controller	---	---	---	---	---	---	---	---	---	---
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface										
RS-232 Ports	---	---	---	---	---	---	---	---	---	---
RS-485	---	---	---	---	---	---	---	---	---	---
RS-232/422/485 Ports	8 (RJ45)	8 (RJ45)	8 (RJ45)	8 (RJ45)	2 (RJ45)	4 (RJ45)	2 (DB9-M)	2 (DB9-M)	2 (DB9-M)	2 (DB9-M)
ESD Protection	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV
Optical Isolation	---	---	---	---	---	---	---	---	---	---
Console Port	√	√	√	√	√	√	√	√	√	√
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark									
Flow Control	RTS/CTS, XON/XOFF, ADDC®									
Baudrate	50 bps to 921.6 Kbps (non-standard baudrates supported; see user's manual for details)									
CANbus	---	---	---	---	---	---	---	---	---	---
LEDs										
System	OS Ready				Ready, SD		OS Ready			Ready
LAN	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M
Serial	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD
Physical Characteristics										
Housing	SECC sheet metal (1 mm)				Aluminum (1 mm)					
Weight	875 g	875 g	875 g	875 g	190 g	200 g	190 g	190 g	190 g	130 g
Dimensions	197 x 44 x 125 mm				77 x 111 x 26 mm					67 x 22 x 100.4 mm
Mounting	DIN-Rail, wall				DIN-Rail, wall					DIN-Rail, wall
Environmental Limits										
Operating Temperature	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C or -40 to 75°C					
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 80°C	-20 to 80°C	-20 to 80°C	-20 to 80°C	-20 to 80°C		-20 to 80°C or -40 to 85°C			
Anti Vibration/Shock	1g/5g	1g/5g	1g/5g	1g/5g	---	---	---	---	---	---
Regulatory Approvals										
EMC	CE (EN55022 Class A, EN61000-3-2 Class A, EN61000-3-3, EN55024), FCC (Part 15 Subpart B, CISPR 22 Class A)									
Safety	UL/cUL (UL60950-1, CSA C22.2 No. 60950-1-03), TÜV (EN60950-1)				LVD (EN60950-1), UL/cUL (UL60950-1, CSA C22.2 No. 60950-1-03)		UL/cUL (UL60950-1, CSA C22.2 No. 60950-1-03), TÜV (EN60950-1)			LVD (EN60950-1), UL/cUL (UL60950, CAN/CSA-C22.2 No. 60950-00)
Green Product	RoHS, CRoHS, WEEE									
Reliability										
Buzzer, RTC, WDT	√	√	√	√	√	√	√	√	√	√
Warranty	5 years (see www.moxa.com/warranty)									

Rackmount Computers



	DA-681-I-SP-CE	DA-681-I-SP-XPE	DA-681-I-SP-LX	DA-681-I-DP-CE	DA-681-I-DP-XPE	DA-681-I-DP-LX	DA-682-CE	DA-682-XPE	DA-682-LX
Computer									
CPU Speed	1 GHz	1 GHz	1 GHz	1 GHz	1 GHz	1 GHz	1 GHz	1 GHz	1 GHz
OS (pre-installed)	WinCE 6.0	WinXP Emb. SP2	Linux	WinCE 6.0	WinXP Emb. SP2	Linux	WinCE 6.0	WinXP Emb. SP2	Linux
DRAM	---	---	---	---	---	---	---	---	---
FSB	400 MHz	400 MHz	400 MHz	400 MHz	400 MHz	400 MHz	400 MHz	400 MHz	400 MHz
Flash	---	---	---	---	---	---	---	---	---
System Memory	512 MB (1 GB max.)	512 MB (1 GB max.)	512 MB (1 GB max.)	512 MB (1 GB max.)	512 MB (1 GB max.)	512 MB (1 GB max.)	256 MB (1 GB max.)	512 MB (1 GB max.)	512 MB (1 GB max.)
PCMCIA	---	---	---	---	---	---	---	---	---
Expansion Bus	PC/104-Plus onboard								
USB Ports	2 (USB 2.0)	2 (USB 2.0)	2 (USB 2.0)	2 (USB 2.0)	2 (USB 2.0)	2 (USB 2.0)	4 (USB 2.0)	4 (USB 2.0)	4 (USB 2.0)
Storage									
Built-in	1 GB	1 GB	1 GB	1 GB	1 GB	1 GB	256 MB	1 GB	1 GB
CompactFlash Socket	√	√	√	√	√	√	√	√	√
HDD Support	√	√	√	√	√	√	√	√	√
Other Peripherals									
KB/MS	1 PS/2 interface, supports standard PS/2 keyboard and PS/2 mouse via Y-type cable (Optional)								
Display									
Graphics Controller	√	√	√	√	√	√	√	√	√
Mini Screen with Push Buttons	---	---	---	---	---	---	---	---	---
LAN Interface									
10/100 Mbps Ethernet Ports	6	6	6	6	6	6			
10/100/1000 Mbps Ethernet Ports	---	---	---	---	---	---	4	4	4
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
100BaseFX Fiber Ports (multi-mode)	---	---	---	---	---	---	---	---	---
Serial Interface									
RS-232 Ports	4 (DB9-M)	4 (DB9-M)	4 (DB9-M)	4 (DB9-M)	4 (DB9-M)	4 (DB9-M)	---	---	---
RS-485	8 (TB)	8 (TB)	8 (TB)	8 (TB)	8 (TB)	8 (TB)	---	---	---
RS-232/422/485 Ports	---	---	---	---	---	---	---	---	---
ESD Protection	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	---	---	---
Digital Isolation	2 KV	2 KV	2 KV	2 KV	2 KV	2 KV	---	---	---
Console Port	---	---	---	---	---	---	---	---	---
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark						---	---	---
Flow Control	RTS/CTS, XON/XOFF, ADDC®						---	---	---
Baudrate	50 bps to 921.6 Kbps (non-standard baudrates supported; see user's manual for details)						---	---	---
LEDs									
System	Ready, Storage, Power Failure (for dual power models only)						Ready, Power, Storage		
LAN	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	100M, 1000M	100M, 1000M	100M, 1000M
Serial	TX, RX	TX, RX	TX, RX	TX, RX	TX, RX	TX, RX	TX, RX	TX, RX	TX, RX
Physical Characteristics									
Housing	SECC sheet metal (1 mm)								
Weight	4.5 kg	4.5 kg	4.5 kg	4.5 kg	4.5 kg	4.5 kg	7 kg	7 kg	7 kg
Dimensions	440 x 253 x 45 mm						440 x 253 x 90 mm		
Mounting	Standard 19-inch rackmount								
Environmental Limits									
Operating Temperature	0 to 60°C	0 to 60°C	0 to 60°C	0 to 60°C	0 to 60°C	0 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 75°C	-20 to 75°C	-20 to 75°C	-20 to 75°C	-20 to 75°C	-20 to 75°C	-20 to 80°C	-20 to 80°C	-20 to 80°C
Regulatory Approvals									
EMC	CE (EN61000-3-2, EN61000-3-3, EN55024), FCC (Part 15 Subpart B, CISPR 22 Class A), CCC (GB9254, GB 17625.1)						CE (EN61000-6-4)		
Safety	UL/cUL (UL60950-1, CSA C22.2 No. 60950-1-03), LVD (EN60950-1), CCC (GB4943)								
Green Product	RoHS, CRoHS, WEEE								
Reliability									
Buzzer, RTC, WDT	√	√	√	√	√	√	√	√	√
Warranty	5 years (see www.moxa.com/warranty)								

3

Embedded Computers for Communication > Rackmount Computers

Rackmount Computers



	DA-660-8-LX	DA-660-8-CE	DA-660-16-LX	DA-660-16-CE	DA-661-16-LX	DA-661-16-CE	DA-662-16-LX	DA-662-16-CE	DA-662-1-16-LX	DA-662-1-16-CE
Computer										
CPU Speed	266 MHz	266 MHz	266 MHz	266 MHz	533 MHz	533 MHz	533 MHz	533 MHz	533 MHz	533 MHz
OS (pre-installed)	Emb. Linux	WinCE 5.0	Emb. Linux	WinCE 5.0	Emb. Linux	WinCE 5.0	Emb. Linux	WinCE 5.0	Emb. Linux	WinCE 5.0
DRAM	128 MB	128 MB	128 MB	128 MB	128 MB	128 MB	128 MB	128 MB	128 MB	128 MB
FSB	---	---	---	---	---	---	---	---	---	---
Flash	32 MB	32 MB	32 MB	32 MB	32 MB	32 MB	32 MB	32 MB	32 MB	32 MB
System Memory	---	---	---	---	---	---	---	---	---	---
PCMCIA	---	---	---	---	√	√	√	√	√	√
Expansion Bus	---	---	---	---	---	---	---	---	---	---
USB Ports	---	---	---	---	2	2	2	2	2	2
Storage										
Built-in	---	---	---	---	---	---	---	---	---	---
CompactFlash Socket	---	---	---	---	√	√	√	√	√	√
HDD Support	---	---	---	---	---	---	---	---	---	---
Other Peripherals										
KB/MS	---	---	---	---	---	---	---	---	---	---
Display										
Graphics Controller	---	---	---	---	---	---	---	---	---	---
Mini Screen with Push Buttons	√	√	√	√	√	√	√	√	√	√
LAN Interface										
10/100 Mbps Ethernet Ports	2	2	2	2	2	2	4	4	4	4
10/100/1000 Mbps Ethernet Ports	---	---	---	---	---	---	---	---	---	---
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
100BaseFX Fiber Ports (multi-mode)	---	---	---	---	---	---	---	---	---	---
Serial Interface										
RS-232 Ports	---	---	---	---	---	---	---	---	---	---
RS-485	---	---	---	---	---	---	---	---	---	---
RS-232/422/485 Ports	8 (RJ45)	8 (RJ45)	16 (RJ45)	16 (RJ45)	16 (RJ45)	16 (RJ45)	16 (RJ45)	16 (RJ45)	16 (RJ45)	16 (RJ45)
ESD Protection	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV
Digital Isolation	---	---	---	---	---	---	---	---	2 KV	2 KV
Console Port	√	√	√	√	√	√	√	√	√	√
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark									
Flow Control	RTS/CTS, XON/XOFF, ADDC®									
Baudrate	50 bps to 921.6 Kbps (non-standard baudrates supported; see user's manual for details)									
LEDs										
System	OS Ready	OS Ready	OS Ready	OS Ready	OS Ready	OS Ready	OS Ready	OS Ready	OS Ready	OS Ready
LAN	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M
Serial	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD
Physical Characteristics										
Housing	SECC sheet metal (1 mm)									
Weight	2600 g	2600 g	2600 g	2600 g	2600 g	2600 g	2600 g	2600 g	2940 g	2940 g
Dimensions	440 x 45 x 198 mm								440 x 45 x 228 mm	
Mounting	Standard 19-inch rackmount									
Environmental Limits										
Operating Temperature	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C	-10 to 60°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 80°C	-20 to 80°C	-20 to 80°C	-20 to 80°C	-20 to 80°C	-20 to 80°C	-20 to 80°C	-20 to 80°C	-20 to 80°C	-20 to 80°C
Regulatory Approvals										
EMC	CE (EN55022 Class A, EN61000-3-2 Class A, EN61000-3-3, EN55024), FCC (Part 15 Subpart B, CISPR 22 Class A)									
Safety	UL/cUL (UL60950-1, CSA C22.2 No. 60950-1-03), TÜV (EN60950-1)									
Green Product	RoHS, CrRoHS, WEEE									
Reliability										
Buzzer, RTC, WDT	√	√	√	√	√	√	√	√	√	√
Warranty	5 years (see www.moxa.com/warranty)									

3

Embedded Computers for Communication > Rackmount Computers

Module/Board Computers



	EM-2260-CE	EM-2260-LX	EM-1240-LX EM-1240-T-LX	EM-1220-LX EM-1220-T-LX
Computer				
CPU Speed	200 MHz	200 MHz	192 MHz	192 MHz
OS (pre-installed)	WinCE 6.0	Linux	Embedded µClinux	
DRAM	128 MB	128 MB	16 MB	16 MB
Flash	32 MB	32 MB	8 MB	8 MB
Digital I/O	8 DIs, 8 DOs	8 DIs, 8 DOs	---	---
Storage				
SD Slot	---	---	√	√
EIDE Interface	√	√	---	---
Display				
Graphics Controller	√	√	---	---
LAN Interface				
10/100 Mbps Ethernet Ports	2	2	2	2
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface				
RS-232/422/485 Ports	4	4	4	2
ESD Protection	15 KV	15 KV	15 KV	15 KV
Console Port	√	√	√	√
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark			
Flow Control	RTS/CTS, XON/XOFF, ADDC®			
Baudrate	50 bps to 921.6 Kbps (non-standard baudrates supported; see user's manual for details)			
Physical Characteristics				
Weight	70 g	70 g	50 g	40 g
Dimensions	106 x 87 mm	106 x 87 mm	90 x 80 mm	80 x 50 mm
Module Interface	---	---	Two 2 x 28 pin-headers (1.27 x 1.27 mm pitch)	
Environmental Limits				
Operating Temperature	-10 to 60°C	-10 to 60°C	-10 to 60°C or -40 to 75°C	
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 80°C	-20 to 80°C	-20 to 80°C or -40 to 85°C	
Regulatory Approvals				
EMC	CE (Class A), FCC		CE (EN55022 Class A, EN61000-3-2 Class A, EN61000-3-3, EN55024), FCC (Part 15 Subpart B, CISPR 22 Class A)	
Green Product	RoHS, CRoHS, WEEE			
Reliability				
Buzzer, RTC, WDT	√	√	√	√
Warranty	5 years (see www.moxa.com/warranty)			

3

DIN-Rail Computers



	IA260-CE IA260-T-CE	IA260-LX IA260-T-LX	IA261-I-LX IA261-I-T-LX	IA261-I-CE IA261-I-T-CE	IA262-I-LX IA262-I-T-LX	IA262-I-CE IA262-I-T-CE	IA240-LX IA240-T-LX	IA241-LX IA241-T-LX
Computer								
CPU Speed	200 MHz	200 MHz	200 MHz	200 MHz	200 MHz	200 MHz	192 MHz	192 MHz
OS (pre-installed)	WinCE 6.0	Linux	Linux	WinCE 6.0	Linux	WinCE 6.0	Embedded Linux	
DRAM	128 MB (256 MB max.)						64 MB	64 MB
Flash	32 MB (64 MB max.)		32 MB	32 MB	32 MB	32 MB	32 MB	32 MB
PCMCIA	---	---	---	---	---	---	---	√
USB Ports	2 (USB 2.0)	2 (USB 2.0)	2 (USB 2.0)	2 (USB 2.0)	2 (USB 2.0)	2 (USB 2.0)	1 (USB 2.0)	1 (USB 2.0)
Digital I/O	8 Dis, 8 DOs	8 Dis, 8 DOs	8 Dis, 8 DOs	8 Dis, 8 DOs	8 Dis, 8 DOs	8 Dis, 8 DOs	4 Dis, 4 DOs	4 Dis, 4 DOs
Storage								
CompactFlash Socket	√	√	√	√	√	√	---	---
SD Slot	---	---	---	---	---	---	√	√
Display								
Graphics Controller	√	√	√	√	√	√	---	---
LAN Interface								
10/100 Mbps Ethernet Ports	2	2	2	2	2	2	2	2
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV	1.5 KV
Serial Interface								
RS-232/422/485 Ports	4 (DB9-M)	4 (DB9-M)	4 (DB9-M)	4 (DB9-M)	2 (DB9-M)	2 (DB9-M)	4 (RJ45)	4 (RJ45)
ESD Protection	---	---	15 KV	15 KV	15 KV	15 KV	15 KV	15 KV
Digital Isolation	---	---	2 KV	2 KV	2 KV	2 KV	---	---
Console Port	√	√	√	√	√	√	√	√
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark							
Flow Control	RTS/CTS, XON/XOFF, ADDC®							
Baudrate	50 bps to 921.6 Kbps (non-standard baudrates supported)							
CANbus	---	---	---	---	2 (DB9-M)	2 (DB9-M)	---	---
LEDs								
System	Power, Ready, Storage							
LAN	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M	10M, 100M
Serial	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD	TxD, RxD
Physical Characteristics								
Housing	Aluminum, industrial vertical form factor						Aluminum (1 mm)	
Weight	1 kg	1 kg	950 g	950 g	950 g	950 g	430 g	500 g
Dimensions	52 x 112.6 x 162 mm	52 x 112.6 x 162 mm	60 x 115 x 152 mm	60 x 115 x 152 mm	60 x 115 x 152 mm	60 x 115 x 152 mm	60 x 137 x 100 mm	60 x 137 x 100 mm
Mounting	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall
Environmental Limits								
Operating Temperature	-10 to 60°C or -40 to 75°C							
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 80°C or -40 to 85°C							
Regulatory Approvals								
EMC	CE (EN55022 Class A, EN61000-3-2 Class A, EN61000-3-3, EN55024), FCC (Part 15 Subpart B, CISPR 22 Class A), CCC (GB9254, GB 17625.1)						CE (EN55022 Class A, EN61000-3-2 Class A, EN61000-3-3, EN55024), FCC (Part 15 Subpart B, CISPR 22 Class A)	
Safety	UL/cUL (UL60950-1, CSA C22.2 No. 60950-1-03), LVD (EN60950-1), CCC (GB4943)						UL/cUL (UL60950-1, CSA C22.2 No. 60950-1-03), TUV (EN60950-1)	
Green Product	RoHS, CRoHS, WEEE							
Reliability								
Buzzer, RTC, WDT	√	√	√	√	√	√	√	√
Warranty	5 years (see www.moxa.com/warranty)							

RISC-based WLAN Computers



	W311-LX	W321-LX	W341-LX
Computer			
CPU Speed	192 MHz	192 MHz	192 MHz
OS (pre-installed)	Embedded Linux with MMU support		
DRAM	32 MB	32 MB	64 MB
Flash	16 MB	16 MB	16 MB
USB Ports	---	---	2 (USB 2.0)
Relay Output	---	---	√
Storage			
SD Slot	√	√	√
LAN Interface			
10/100 Mbps Ethernet Ports	1	1	1
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV
100BaseFX Fiber Ports (multi-mode)	---	---	---
WLAN Interface			
Standard Compliance	802.11a/b/g		
Radio Frequency Type	DSSS, CCK, OFDM		
Transmission Rate	54 Mbps (max.) with auto fallback (54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps) • 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11b: 1, 2, 5.5, 11 Mbps		
Transmission Distance	Up to 100 meters (@ 11 Mbps in open areas)		
Wireless Security	WEP: 64-bit/128-bit, WPA, WPA2 data encryption		
WLAN Modes	Ad-hoc (802.11b/g), Infrastructure		
Serial Interface			
RS-232/422/485 Ports	1 (DB9-M)	2 (DB9-M)	4 (DB9-M)
ESD Protection	15 KV	15 KV	15 KV
Console Port	√	√	√
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark		
Flow Control	RTS/CTS, XON/XOFF, ADDC™		
Baudrate	50 bps to 921.6 Kbps (non-standard baudrates supported)		
LEDs			
System	Ready, SD	Ready, SD	Ready, SD
LAN	10M, 100M	10M, 100M	10M, 100M
WLAN	Enable, Signal Strength		
Serial	TxD, RxD	TxD, RxD	TxD, RxD
Physical Characteristics			
Housing	Aluminum (1 mm)		
Weight	170 g	185 g	390 g
Dimensions	77 x 111 x 26 mm	77 x 111 x 26 mm	150 x 100 x 38 mm
Mounting	DIN-Rail, wall		
Environmental Limits			
Operating Temperature	-10 to 60°C	-10 to 60°C	-10 to 60°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 80°C	-20 to 80°C	-20 to 80°C
Anti Vibration/Shock	5g/50g	5g/50g	5g/50g
Regulatory Approvals			
EMC	CE (ETSI EN 301 489-1/-17, ETSI EN 301 893, ETSI EN 300 328, EN50392), FCC Part 15C & Part 15E		
Safety	UL/cUL (UL60950-1), TÜV (EN60950-1)		
Green Product	RoHS, CrRoHS, WEEE		
Reliability			
Buzzer, RTC, WDT	√	√	√
Warranty	5 years (see www.moxa.com/warranty)		

Cellular Computers



	W315-LX	W325-LX	W345-LX
Computer			
CPU Speed	192 MHz	192 MHz	192 MHz
OS (pre-installed)	Embedded Linux with MMU support		
DRAM	32 MB	32 MB	64 MB
Flash	16 MB	16 MB	16 MB
USB Ports	---	---	2 (USB 2.0)
Relay Output	---	---	√
Storage			
SD Slot	√	√	√
LAN Interface			
10/100 Mbps Ethernet Ports	1	1	1
Magnetic Isolation Protection	1.5 KV	1.5 KV	1.5 KV
100BaseFX Fiber Ports (multi-mode)	---	---	---
Cellular Interface			
Cellular Modes	GSM, GPRS		
Radio Frequency Bands	850/900/1800/1900 MHz		
GPRS Class	10		
Coding Schemes	CS1 to CS4		
Serial Interface			
RS-232/422/485 Ports	1 (DB9-M)	2 (DB9-M)	4 (DB9-M)
ESD Protection	15 KV	15 KV	15 KV
Console Port	√	√	√
Serial Communication Parameters	Data Bits: 5, 6, 7, 8; Stop Bits: 1, 1.5, 2; Parity: None, Even, Odd, Space, Mark		
Flow Control	RTS/CTS, XON/XOFF, ADDC™		
Baudrate	50 bps to 921.6 Kbps (non-standard baudrates supported)		
LEDs			
System	Ready, SD	Ready, SD	Ready, SD
LAN	10M, 100M	10M, 100M	10M, 100M
Cellular	GPRS Enabled, GSM Signal Strength		
Serial	TxD, RxD	TxD, RxD	TxD, RxD
Physical Characteristics			
Housing	Aluminum (1 mm)		
Weight	195 g	195 g	400 g
Dimensions	77 x 111 x 26 mm	77 x 111 x 26 mm	150 x 100 x 38 mm
Mounting	DIN-Rail, wall	DIN-Rail, wall	DIN-Rail, wall
Antenna Length	110 mm	110 mm	110 mm
Environmental Limits			
Operating Temperature	-10 to 60°C	-10 to 60°C	-10 to 60°C
Operating Humidity	5 to 95% RH	5 to 95% RH	5 to 95% RH
Storage Temperature	-20 to 80°C	-20 to 80°C	-20 to 80°C
Anti Vibration/Shock	5g/50g	5g/50g	5g/50g
Regulatory Approvals			
EMC	FCC: Part 15, Part 24/24		
CE	EN55022, EN61000		
R&TTE	EN301 489-1, EN301 489-7, EN301 511		
Safety	LVD: EN60950-1 UL/cUL: UL60950-1, CSA C22.2 No. 60950-1-03		
Green Product	GCF-CC, RoHS, CRoHS, WEEE		
Reliability			
Buzzer, RTC, WDT	√	√	√
Warranty	5 years (see www.moxa.com/warranty)		