



DPKM11H00

DevicePort® Dock Mode
Ethernet enabled RS-232 & Printer
Port Replicator



Introduction

SUNIX DevicePort® is the ideal choice to enable your current Legacy I/O devices networking. DPKM11H00 allows users to expand both RS-232 and printer ports over Ethernet connection, and it works as a PCIe add-on card operation on any windows based tiny desktop, laptop, or All-in-one system. With SUNIX DPL2000Q High-Performance Ethernet-UART/Printer controller and exclusive I/O redirection technology, DevicePort® creates physical COM and LPT ports that support real time data communication and Ethernet-COM/LPT port hot-plug capability; user can expand legacy port easily without complex software configuration that improves deployment efficiency to achieve greater reliability in commercial and industrial automation applications.

Features

- Expands RS-232 COM and Printer LPT ports over Ethernet networking.
- Works as a PCIe add-on card operating experience with Ethernet Hot-Plug capability.
- DevicePort® Dock mode supports secured connection between PC host and DevicePort®.^(*Note 1)
- Built-in SUNIX DevicePort® DPL2000Q High-Performance Ethernet-UART/Printer controller.
- SUNIX DevicePort® proprietary Ethernet I/O Redirection Technology.^(*Note 2)
 - Port auto-mapping with real time data transmit and receive communication.
 - Physical COM and LPT port accessed via device manager.
 - Up to 12 COM and 3 LPT ports working on windows system simultaneously.
- Accesses tradition COM and LPT port by using existing software and AP.^(*Note 3)
- Low power consumption design for Green Environment.
- 15KV ESD protection for all serial signals meets IEC-61000-4-2 standard.
- Certified by CE, FCC, VCCI, C-Tick, BSMI, RoHS, and Microsoft WHQL approval.

Note:

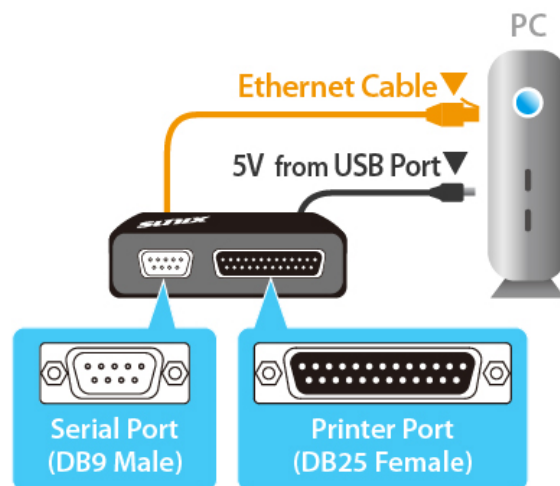
1. To prevent on-line spy recording, DevicePort® **Dock Mode** limits specific Ethernet port connection, and it does not works on router or switch operation.
2. Ethernet I/O Redirection technology is SUNIX proprietary protocol for COM, LPT, and digital IO expansion over category6/5 Ethernet cable.
3. LPT port does not support LPT Key Locker and other Parallel devices, but Printer only. It does not support legacy 278/378/3BC ISA address either.

Applications

With SUNIX DPL2000Q High-Performance Ethernet-UART controller and exclusive I/O redirection technology, user can expand RS-232 COM and Printer LPT Port easily without complex software configuration.



Small PC form factor requirements grow and advance continuously to meet up-and-coming challenges and opportunities. SUNIX DevicePort® products are specifically developed to meet such requirements to replace current add-on card solution. User can expand legacy I/O ports over Ethernet connection that improves deployment efficiency to achieve greater reliability in commercial and industrial automation applications.



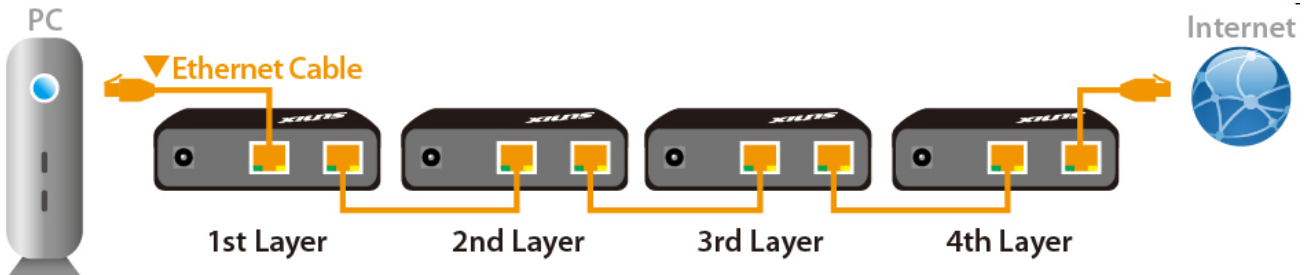
With Ethernet hot-plug and system auto-detect capability, user can expand RS-232 COM and printer LPT port easily without complex software configuration. Just plug RJ45 Ethernet cable between SUNIX DevicePort® and PC host side, system will create physical COM/LPT ports automatically with real time data transmit and receive communication. User can easily access port by using existing software and application, no longer TCP sock protocol compiling.

DevicePort® Auto-Detect & Port-Mapping

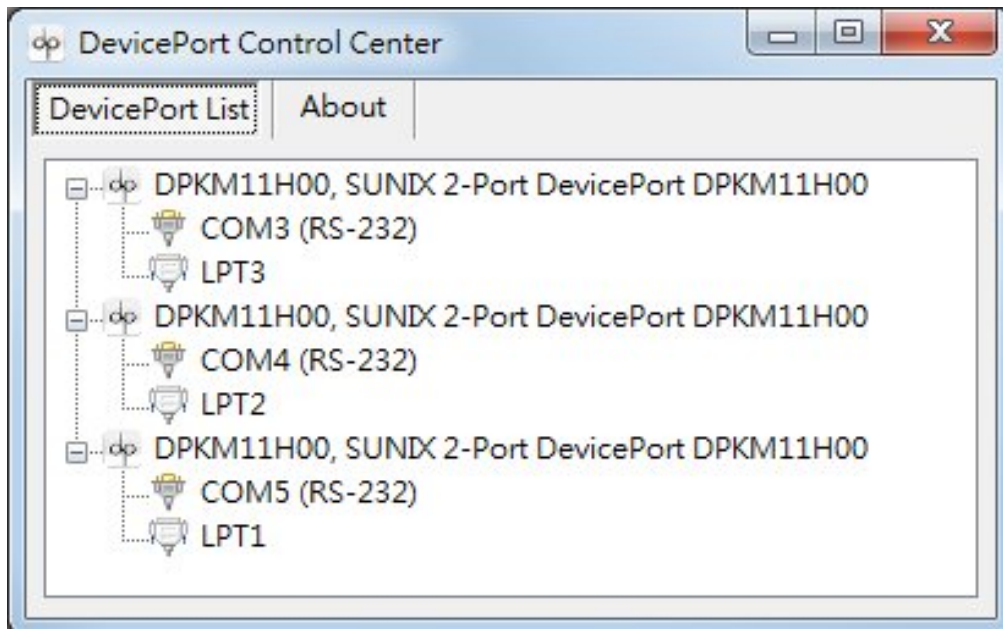
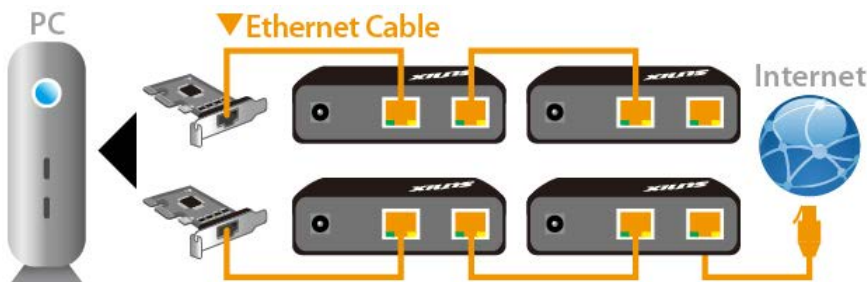


SUNIX DevicePort® product built-in dual 10/100 Ethernet channels, one for data downstream to PC host and the other upstream port for Ethernet switch connecting. With dual Ethernet channels feature, DevicePort® supports daisy chain network topology for multiple boxes connection. (Maximum 4 boxes or 12 COM / 3 LPT ports expansion).

DevicePort® Daisy Chain Topology Type 1



DevicePort® Daisy Chain Topology Type 2



Specifications

Serial Communication

Interface	RS-232	Baud rate	50bps ~115.2Kbps
Controller	SUNIX DPL2000Q	Stop bit	1, 1.5, 2
BUS	Ethernet	Parity	even, odd, none, mark, space
No. of Port	1-port	Flow Control	Xon/Xoff (software)
FIFO	1Kbyte Hardware / per port	Connector	DB9 Male
Signal	DCD, TxD, RxD, RTS, CTS, DTR, DSR, GND, RI		
Protection	±15KV ESD IEC6000-4-2 Air Discharge ±8KV ESD IEC61000-4-2 Contact Discharge ±4KV ESD IEC61000-4-2 Level2 Line-to-Line		

Parallel Communication

Interface	IEEE1284 Printer Support ^(*Note 3)
No. of Port	1-port
FIFO	1Kbyte Hardware / per port
Speed	Maximum 2.7MBps
PCB Connector	DB25 Female

Ethernet Communication

Number of Ports	2-port ^(*Note 1) Upstream to Ethernet Switch Downstream to PC Host
Speed	10/100 Mbps, auto MDI/MDIX
Connector	RJ45
Magnetic Isolation Protection	1.0K Built-in

Power Requirements

Input Voltage	5 to 12VDC
Power Consumption	2.5W @ 5VDC
Connector	DC-Jack

Driver Support

Microsoft Client	XP (X86) / 7 / 8 / 8.1 / 10 (X86/X64)
Microsoft Server	2003 / 2008 / 2012R2 (X64)

Regulatory Approvals

Hardware EMC	<ul style="list-style-type: none"> ● EUR: CE EN55022 Class B, EN55024 ● US: FCC Part 15 Class B ● TAIWAN: BSMI: CNS13438 ● AS/NZS: C-Tick: CISPR22 AS/NZS ● JAPAN: VCCI
Software Driver	Microsoft WHQL Windows <ul style="list-style-type: none"> ● Microsoft Client: XP (X86)/7/8/8.1 (X86/X64) ● Microsoft Server: 2003/2008/2012R2 (X64)

Environment

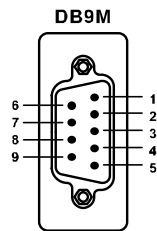
Operation Temperature	0 to 45°C (32 to 113°F)
Operation Humidity	5 to 95% RH (non-condensing)
Storage Temperature	-20 to 85°C (-4 to 185°F)

Physical Characteristics

Housing	ABS, PC, Metal
Weight	150g
Dimensions	121x81.93x27(mm), 4.7x3.2x1.0(inch)

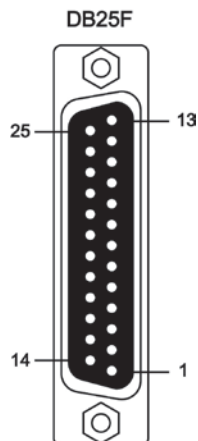
Pin Assignment

■ RS-232



PIN	DB9M
DCD	1
RxD	2
TxD	3
DTR	4
GND	5
DSR	6
RTS	7
CTS	8
RI	9

■ Parallel



DB25F	PIN	DB25F	PIN
1	STROBE	14	AUTO FEED
2	DATA0	15	ERROR
3	DATA1	16	INT
4	DATA2	17	SELECT INPUT
5	DATA3	18	GND
6	DATA4	19	GND
7	DATA5	20	GND
8	DATA6	21	GND
9	DATA7	22	GND
10	ACKNOWLEDGE	23	GND
11	BUSY	24	GND
12	PAPER EMPTY	25	GND
13	SELECT		

Package

- DPKM11H00- DevicePort® Dock Mode, Ethernet enabled RS-232 & Printer Port Replicator
- Quick Installation Guide
- Power Jack to USB TypeA Male Cable, 120cm (4ft.)



Product Family

■ RS-232

Mode	Port	Connector	Baud Rate	ESD Protection	PoweredCOM	Model
Dock	8	DB9M	921.6Kbps	±15KV	-	DPKX08H00
	8	DB9M	115.2Kbps		-	DPKS08H00
	4	DB9M	921.6Kbps		-	DPKX04H00
	4	DB9M	115.2Kbps		-	DPKS04H00
	4	DB44F	115.2Kbps		-	DPKS04HZ0
	4	DB9M	115.2Kbps		5VDC	DPKS04HP0
	4	DB44F	115.2Kbps		5VDC	DPKS04HZP
	2	DB9M	921.6Kbps		-	DPKX02H00
	2	DB9M	115.2Kbps		-	DPKS02H00
	2	DB9M	115.2Kbps		5VDC	DPKS02HP0
Advanced	32	RJ45	921.6Kbps	±15KV	-	DPAS32G00
	16	RJ45	921.6Kbps		-	DPAS16G00
	8	DB9M	921.6Kbps		-	DPAX08H00
	8	DB9M	115.2Kbps		-	DPAS08H00
	4	DB9M	921.6Kbps		-	DPAX04H00
	4	DB9M	115.2Kbps		-	DPAS04H00
	4	DB44F	115.2Kbps		-	DPAS04HZ0
	4	DB44F	115.2Kbps		5VDC	DPAS04HZP
	2	DB9M	921.6Kbps		-	DPAX02H00
	2	DB9M	115.2Kbps		-	DPAS02H00

■ Multi I/O

Mode	Port		Connector		Speed		ESD Protection	Model
	COM	Printer	COM	Printer	COM	Printer		
Dock	2	1	DB9M	DB25F	115.2Kbps	2.7MBps	±15KV	DPKM21H00
	1	1	DB9M	DB25F	115.2Kbps	2.7MBps		DPKM11H00
Advanced	2	1	DB9M	DB25F	115.2Kbps	2.7MBps	±15KV	DPAM21H00
	1	1	DB9M	DB25F	115.2Kbps	2.7MBps		DPAM11H00

■ Printer

Mode	Port	Connector	Speed	ESD Protection	Model
Dock	1	DB25F	2.7MBps	±15KV	DPKP01H00
Advanced	1	DB25F	2.7MBps	±15KV	DPAP01H00

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