



Amphus VG-PD6722 and Amphus VG-PD6729 PC Card Host Controllers

PRODUCT LINE OVERVIEW

The Amphus PC Card controller is highly integrated, small form factor, power-efficient devices that support industry standards, including PCMCIA 2.1 and JEIDA 4.1, with ExCA* compatibility and ATA disk interface support. It provides an efficient way to install software in a wide variety of products, including routers, bridges, network switches, servers, digital subscriber line access multiplexers (DSLAM), customer premises equipment (CPE) multi-service access devices, portable and wireless equipment, navigation systems, printers, and test equipment. Amphus dual-slot controllers feature ZV (Zoom Video) support for video and multimedia applications.

The Amphus family of single-chip PC Card controllers is pin compatible and functionally equivalent to the Intel PD-6722 and PD-6799 PC Card Controllers. They both support dual-slot (Amphus VG-PD6722) ISA-to-PC Card interfaces and a dual-slot PCI-to-PC Card interface (Amphus VG-PD6729). All include programmable features, including suspend mode, memory and I/O windows, and card access cycle timing. In addition, Amphus PC card controllers are designed with sophisticated power saving features, including support for mixed voltage and automatic low-power dynamic mode. Energy-efficient mixed voltage technology can reduce system power consumption by 50 percent or more compared to conventional designs.

PC Card controllers provide a flexible, compact, and cost-effective software transport solution for communications devices and embedded systems that require a combination of field upgradeability, small form factor, and power savings.

Amphus VG-PD6722 ISA-to-PC Card Host Controller

PRODUCT HIGHLIGHTS

- Single-chip PC Card controllers
- Supports single or dual PC Card sockets
- Compliant with PCMCIA 2.1, JEIDA 4.1
- 82365SL-compatible register set
- Automatic low-power mode

Amphus VG-PD6722 and VG-PD6729 PC Card Host Controllers



- Programmable suspend mode
- Hardware-enabled super-suspend mode
- 5 programmable memory windows per socket
- 2 programmable I/O windows per socket
- Programmable card access cycle timing
- Supports 8- or 16-bit system bus interface
- Supports 8- and 16-bit PC Card interface
- Supports ATA disk interface
- DMA support (Amphus VG- PD6722)
- Card-voltage sensing
- PC Card activity indicator
- 3.3/5.0 V mixed-voltage operation
- Dual socket: 208-pin MQFP and LQFP

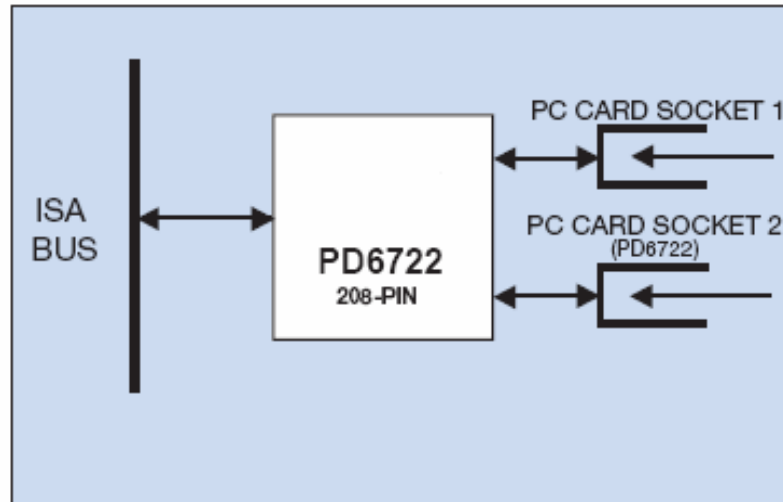
PRODUCT OVERVIEW

The Amphus VG- PD6722 PC Card controller is a single-chip solution that provides direct connection to the ISA (PC-AT) bus with two PC Card sockets. PC Card interfaces are useful for supporting software updates, memory expansion, configuration storage and event logs, and both wireless and wire-line communications in applications including customer premises equipment (CPE), routers, network switches, remote access servers, DSL access multiplexers (DSLAMs), and intelligent hand-held devices. The controller is optimized for embedded applications where reduced form factor and low-power consumption are important design considerations. The Amphus VG-PD6722 controller with power control logic occupies less than two square inches.

The Amphus VG-PD6722 accommodates various PC Card functions including wireless, flash, and 10/100 Ethernet. It is fully compatible with PCMCIA 2.1 and JEIDA 4.1 standards. The controller feature mixed voltage technology that can significantly reduce system power consumption. Suspend mode stops the internal clock. Automatic low-power dynamic mode stops transactions on the PCMCIA bus, stops internal clock distribution, and turns off internal circuitry. Fully buffered PCMCIA signals allow hot insertion and removal without requiring external logic to buffer incoming and outgoing signals, and allow- power consumption to be controlled by limiting signal transitions on the PCMCIA bus.



Amphus VG-PD6722 and VG-PD6729 PC Card Host Controllers



Amphus VG-PD6722 System Block Diagram

Amphus VG-PD6729 PCI-to-PC Card Host Controller

PRODUCT HIGHLIGHTS

- Single-chip PC Card controllers
- Supports dual PC Card sockets
- Compliant with PCI 2.1
- Compliant with PCMCIA 2.1, JEIDA 4.1
- 82365SL-compatible register set
- Automatic low-power mode
- Programmable suspend mode
- 5 programmable memory windows per socket
- 2 programmable I/O windows per socket
- Programmable card access cycle timing
- Supports 8- and 16-bit PC Card interface
- Supports ATA disk interface
- Automatic flash timing support
- Multimedia capability with Zoom Video Port
- Card-voltage sense support
- PC Card activity indicator

Amplus VG-PD6722 and VG-PD6729 PC Card Host Controllers

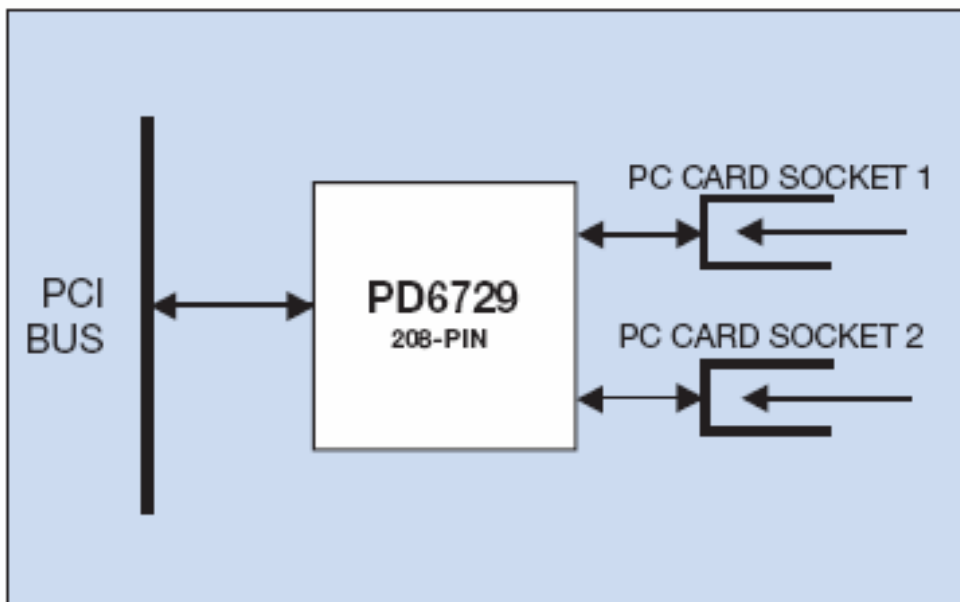


- +3.3V, +5.0V, or 3.3V/5.0V mixed-voltage operation
- Supports PC Card low-voltage card specification
- 208-pin MQFP and LQFP

PRODUCT OVERVIEW

The Amplus VG- PD6729 PCI-to-PC Card controller is a single- chip solution that provides direct connection to the PCI bus. It is optimized for embedded applications where reduced form factor and low-power consumption are important design objectives. Applications include customer premises equipment (CPE), routers, network switches, remote access servers, DSL access multiplexers (DSLAMs), and intelligent hand-held devices. The PC Card interface can be used to support software updates, memory expansion, configuration storage and event logs, and both wireless and wire-line communications.

The Amplus VG-PD6729 accommodates various PC Card functions, including wireless, flash memory, and 10/100 Ethernet. It is capable of controlling two fully independent PC Card sockets and is fully compatible with PCMCIA 2.1 and JEIDA 4.1. Fully buffered PCMCIA signals require no external logic to buffer incoming and outgoing signals, and allow power consumption to be controlled by limiting signal transitions on the PCMCIA bus. The controller features energy efficient mixed voltage technology that can significantly reduce system power consumption. Suspend mode stops the internal clock, and automatic low-power dynamic mode stops transactions on the PCMCIA bus, stops internal clock distribution, and turns off internal circuitry.



Amplus VG-PD6729 System Block Diagram



Amplus VG-PD6722 and VG-PD6729 PC Card Host Controllers

ORDERING INFORMATION:

Contact an authorized Amplus distributors or Amplus for complete ordering details.

PRODUCT ORDERING CODES:

Amplus VG-CD1400 Serial Communication Controller	VG-CD1400-QCJ
Amplus VG-CD1400 Serial Communication Controller — lead free version (RoHS compliant)	VG-CD1400-LF-QCJ
Amplus VG-CD1865 Serial Communication Controller	VG-CD1865-QCB
Amplus VG-CD1865 Serial Communication Controller — lead free version (RoHS compliant)	VG-CD1865-LF-QCB
Amplus VG-PD6722 ISA-to-PC Card Host Controller (MQFP)	VG-PD6722-QCCE
Amplus VG-PD6722-LF ISA-to-PC Card Host Controller (MQFP) — lead free version (RoHS compliant)	VG-PD6722-LF-QCCE
Amplus VG-PD6729 PCI-to-PC Card Host Controller (MQFP) E-stepping	VG-PD6729-QCE
Amplus VG-PD6729 PCI-to-PC Card Host Controller (LQFP) E-stepping — lead free version (RoHS compliant)	VG-PD6729-LF-QCE

LITERATURE INFORMATION:

- Amplus Serial Communication Controllers Product Line
- Amplus CD1400 Serial Communication Controllers Product Brief
- Amplus CD1400 Serial Communication Controllers Product Data Sheet
- Amplus CD1865 Serial Communication Controllers Product Brief
- Amplus CD1865 Serial Communication Controllers Product Data Sheet
- Amplus PC Card Host Controllers Product Line
- Amplus PD6722 ISA-TO-PC Card Host Controllers Product Brief
- Amplus PD6722 ISA-TO-PC Card Host Controllers Product Data Sheet
- Amplus PD6729 PCI-TO-PC Card Host Controllers Product Brief
- Amplus PD6729 PCI-TO-PC Card Host Controllers Product Data Sheet

PRODUCT CROSS REFERENCE TABLE:

<u>Amplus</u>	<u>Intel</u>
VG-CD1400-QCJ	CD1400-10QCJ
VG-CD1400-LF-QCJ (RoHS compliant)	NA
VG-CD1865-QCB	CD1865-10QCB
VG-CD1865-LF-QCB (RoHS compliant)	NA
VG-PD6722-QCCE	SPD6722-QCCE
VG-PD6722-LF-QCCE (RoHS compliant)	NA
VG-PD6729-QCE	SPD6729-QCE
VG-PD6729-LF-QCE (RoHS compliant)	NA