

# MPCI-VGA

Mini-PCI Module  
Volari Z9M GPU



## Features

High Performance 2D Accelerator

High Efficient BroadBahn™ Memory Architecture

VGA Interface

LVDS Interface (optional, see note)

High Performance LVDS Interface

MiniPCI Bus Interface

## Specifications

**Board Format** MiniPCI,  
59.75 mm x 50.95 mm

**Processor** Volari Z9M GPU  
Built-in hardware command queue, Direct Draw Accelerator, GDI 2000 Accelerator  
Built-in an 1T pipelined 64-bit BITBLT graphics engine with the following functions:  
- 256 raster operations  
- Rectangle fill  
- Color expansion  
- Enhanced color expansion  
- Line-drawing with styled pattern  
- Built-in bytes pattern registers  
- Built-in 8x8 mask registers  
- Rectangle clipping  
- Transparent BitBlt with source and destination keys  
- Source data in command queue Bitblt  
Supports memory-mapped, zero wait-state, burst engine write  
Built-in 64x64x2 bit-mapped mono hardware cursor  
Maximum 256MB frame buffer with linear addressing  
Built-in source read-buffer to minimize engine wait-state  
Built-in destination read-buffer to minimize engine wait-state

**RAM** Integrated 8 MByte DDR SDRAM memory

**VGA** up to 1600 x 1200 x 16

**LVDS** up to 1600 x 1200  
18 bit display support  
(optional, see note)

**DDC** Supports DDC1, DDC2B and DDC 3.0 specifications

**Operation Temperature** 0°C...+60°C (commercial, all versions)  
-20°C...+60°C (industrial, all versions)  
-40°C...+85°C (extended, optional)

**MTBF** t.b.d.

**Power Supply** +5 V, +3.3 V

**Current Consumption** 50 mA @ 5 V  
550 mA @ 3.3 V

**Display Backlight** Yes

**BIOS Compatibility** Standard VGA

**PCI Bus** Mini PCI bus

**Operating Systems** Drivers for Windows, Linux

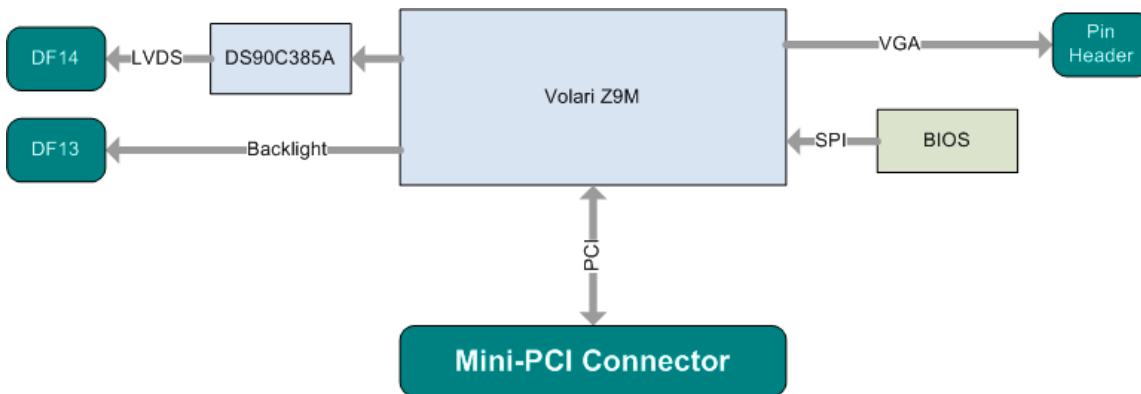
Note: Chip supports only either VGA or LVDS. Concurrent operation is not supported.  
Optional LVDS requires a BIOS change.

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## Block Diagram



## Ordering Information

Ordering Number	Description
706-0017-10	MPCI-VGA MiniPCI VGA board with XGI VOLARI Z9M, 8 MB RAM onboard, VGA output. Includes VGA adapter cable. Operating temp. range: -0°C ... +60°C
806-0017-10	MPCI-VGA MiniPCI VGA board with XGI VOLARI Z9M, 8 MB RAM onboard, VGA output. Includes VGA adapter cable. Operating temp. range: -20°C ... +60°C
906-0017-10	MPCI-VGA MiniPCI VGA board with XGI VOLARI Z9M, 8 MB RAM onboard, VGA output. Includes VGA adapter cable. Operating temp. range: -40°C ... +85°C

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