

# DVS-350F

## Large Capacity Embedded/Mobile Digital Video Platform with 3.5" HDD



### Features

- Up to 16 channel composite inputs that can share a total frame rate of 120/100 fps
- Anti-vibration, anti-shock and fanless design to ensure maximum reliability
- x86 architecture for easy application development & integration
- TV-OUT and WLAN module support
- Wide power source (9 ~ 30 V DC)
- CardBus interface for optional mobile communication module
- Swappable HDD for easy integration and data transfer
- Supports Windows 2000/XP with driver and SDK



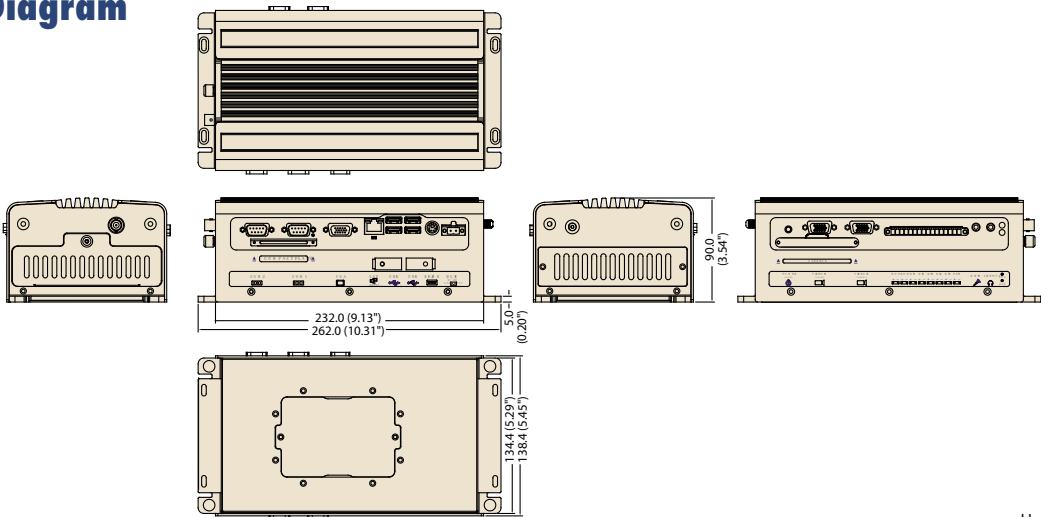
### Introduction

The DVS-350 series provide the digital video market with a perfect solution for applications in harsh environments. The DVS-350 is the smallest industrial grade PC-based system that supports 4-16 camera inputs. The x86 open platform eases application software integration. It is designed for installation in any mission-critical environment with its fanless, anti-vibration and anti-shock protection. A wide power range of 9 to 30 V DC can protect the system from power surges while used on vehicles. Among the whole series, the DVS-350F contains a swappable HDD which offers easy video data transferring and capacity integration. These features combined with TV-OUT, WLAN, isolated DI and relay DO, make the DVS-350 the best solution for embedded/mobile applications.

### Specifications

|                          | Part Number                         | DVS-350-35S4E   | DVS-350-35M0E                        |
|--------------------------|-------------------------------------|---|--------------------------------------|
| Video System             | Video Standard                      | Composite for NTSC/PAL  |                                      |
|                          | Video Input                         | 4 ~ 16 channels share a total of 120 fps  |                                      |
|                          | Encoding                            | Up to 120 fps @ CIF resolution with software encoding                             |                                      |
|                          | Capture Resolution                  | Up to D1 resolution: 720 x 480 (NTSC) / 768 x 576 (Full PAL)                      |                                      |
|                          | Total Capture Frame Rate (NTSC/PAL) | 120/100 fps   |                                      |
|                          | Image Processing                    | Hardware adjustment of hue, contrast, saturation, and brightness                  |                                      |
|                          | Data Output Format                  | YUY2 planar formats supported   |                                      |
| Software Development Kit | Operating System                    | Supports Microsoft Windows® XP with SP2, Windows XP Embedded and Win2000 with SP4 |                                      |
|                          | DirectX Support                     | Version 9 or above  |                                      |
|                          | Demo Program                        | Complete demo program with VC++ sample code for reference                         |                                      |
|                          | Function                            | Video capture, preview, DIO control, encoding and decoding                        |                                      |
| Processor System         | CPU                                 | Intel® Pentium® M LV 1.4 GHz  | Intel Celeron M ULV 600 MHz          |
|                          | Chipset                             | Intel 852GME / ICH4   |                                      |
|                          | L2 Cache                            | 2 MB  | 512 KB                               |
|                          | BIOS                                | AWARD 4 Mbit BIOS   |                                      |
|                          | Memory                              | Technology  | DDR 200/266/333 modules, ECC support |
| Max. Capacity            |                                     | 1 GB  |                                      |
| Socket                   |                                     | 200-pin SODIMM  |                                      |
| Graphic                  | Chipset                             | Chipset integrated VGA controller   |                                      |
|                          | Memory Size                         | Shared system memory up to 64 MB  |                                      |
|                          | Resolution                          | Up to 1600 x 1200 @ 85 Hz and 2048 x 536 @ 75 Hz                                  |                                      |
|                          | TV-OUT                              | Composite out (BNC type)  |                                      |
| Ethernet                 | Interface                           | 10/100Base-T  |                                      |
|                          | Controller                          | Intel 82551QM   |                                      |
|                          | Connector                           | RJ-45   |                                      |
| Storage                  | WLAN                                | 802.11b/g   |                                      |
|                          | IDE-0                               | Swappable 3.5" HDD Tray with integrated fan                                       |                                      |
|                          | IDE-1                               | Type I/II CompactFlash socket   |                                      |
| I/O Interface            | TV-OUT                              | 1 Composite Out with BNC connector  |                                      |
|                          | VGA                                 | 1 (D-sub 15-pin)  |                                      |
|                          | LAN                                 | 1 (RJ-45)   |                                      |
|                          | USB                                 | 4 (USB 2.0, 480 Mbps)   |                                      |
|                          | Audio                               | AC97: LINE-OUT, MIC-IN  |                                      |
|                          | Serial                              | COM1: RS-232; COM2: RS-485/RS-422   |                                      |
|                          | PS/2                                | 1 (keyboard and mouse with Y cable)   |                                      |
|                          | DIO                                 | 5 Isolated DI, 2 Relay DO, 1 Remote SW control                                    |                                      |
|                          | MiniPCI                             | 1 (for integrated WLAN module)  |                                      |
|                          | CardBus                             | 1 slot  |                                      |
|                          | Power Switch                        | External Power Switch Connector   |                                      |

### Block Diagram



Unit: mm (inch)

|                          |                        |   |
|--------------------------|------------------------|---|
| Power Requirement        | Management             | APM 1.2, ACPI supported   |
|                          | Power Consumption      | Average 36 W  |
|                          | Power Adapter          | 9 ~ 30 V DC, Typical 9 V DC @ 5.4 A, 19 V DC @ 2.9 A                        |
| Watchdog Timer           | Output                 | Interrupt, system reset   |
|                          | Interval               | Programmable 1 ~ 255 sec.   |
| Physical Characteristics | Construction           | Aluminum housing  |
|                          | Mounting               | Din-Rail mounting and desk / wall mounting                                  |
|                          | Dimensions (W x H x D) | 232.0 x 90.0 x 138.4 mm (9.1" x 3.5" x 5.4")                                |
|                          | Weight                 | 2.9 kg (6.38 lb)  |
| Environment              | Temperature            | Operating: -10 ~ 45° C  |
|                          | Relative Humidity      | Operating: 95% @ 40° C (non-condensing)                                     |
|                          | Vibration Resistance   | Operating: 1 Grms, IEC 60068-2-64, Random, 5 ~ 500 Hz, 1 Oct/min, 1 hr/axis |
|                          | Shock Resistance       | Operating: 20 G, IEC 60068-2-27, half sine, 11 ms                           |

### Ordering Information

| Part Number   | HDD Support         | Video Inputs    | CPU                        | Memory | L2 Cache |
|---------------|---------------------|-----------------|----------------------------|--------|----------|
| DVS-350-35S4E | 3.5" Swappable Tray | 4 ~ 16 channels | Intel Pentium M LV 1.4 GHz | N/A    | 2 MB     |

\* DVS-350-35M0E; Intel Celeron M ULV 600 MHz with 512 MB L2 cache is available upon request

### Optional Items

#### 3.5" Hard Drive Options

| Part Number      | RPM  | Type             | Capacity |
|------------------|------|------------------|----------|
| 96HD80G-I-SG7K3  | 7200 | IDE Parallel-ATA | 80 GB    |
| 96HD120G-I-SG7K1 | 7200 | IDE Parallel-ATA | 120 GB   |
| 96HD160G-I-SG7K1 | 7200 | IDE Parallel-ATA | 160 GB   |
| 96HD200G-I-SG7K1 | 7200 | IDE Parallel-ATA | 200 GB   |

#### Power Adapter

| Part Number | Description  |
|-------------|--|
| 1757000222  | AC-to-DC Adapter DC 19V / 3.42 A / 65 W, with Phoenix Power Plug |

#### Power Cord Options

| Part Number | Description       |
|-------------|-------------------|
| 1700001947  | 2P 180 cm, USA    |
| 1700001948  | 2P 180 cm, Europe |
| 1700001949  | 2P 180 cm, UK     |

#### HDD Upload Station Options

| Part Number | Description                              |
|-------------|--|
| DVA-222     | HDD Upload Station for DVS-350-35M0E/S4E |

#### Industry-grade Compact Flash Card Options

| Part Number        | Capacity | Operation Temperature            |
|--------------------|----------|----------------------------------|
| 96FMCFI-512M-ET-TR | 512 MB   | -40° C (-40° F) ~ 85° C (185° F) |
| 96FMCFI-1G-ET-TR   | 1 GB     | -40° C (-40° F) ~ 85° C (185° F) |

### Packing List

| Part Number | Description                                 | Qty |
|-------------|---|-----|
| 2013000000  | 1 year warranty card                        | X 1 |
| 2062S35000  | Driver CD                                   | X 1 |
| 1700001394  | DC Jack with 2-pin pluggable terminal block | X 1 |
| 1652000209  | Pluggable terminal block for DI and DO      | X 1 |
| 1700060202  | Y cable of KB and PS/2 Mouse                | X 1 |
| 1700001618  | Video Cable (D-sub 15P to BNC)              | X 2 |

