TREK-756

Vehicle Mounted Computer
with 12.1" TFT LCD

Features

- 12.1" TFT LCD, 5% ~ 100% dimmable
- Rugged aluminum enclosure and fanless design
- VESA standard for flexible mounting kits
- IP65 dustproof and waterproof seals
- Compatible with Windows® 98/2000/XP and Linux
- Embedded OS support (WinCE. NET 4.2 and XP Embedded)
- Flexible expansion capability for 802.11a/b/g, GPS, GPRS, CDMA, GSM
- Flexible power source: Default 24 V_{DC}; with optional 12 V_{DC}, 48 V_{DC}
- Optional extreme temperature operating capability

Introduction

TREK-756 is a fanless vehicle mounted computer that comes with a VIA® Eden™ low-power CPU for high reliability and performance. It is a dedicated vehicle mounted computing platform designed for applications in warehousing and logistics; delivery and fleet management; and container traffic management.

The rugged die-cast aluminum enclosure replaces the fan as it helps dissipate heat. TREK-756 has a special design without ventilation holes that makes the front bezel, back cover and sides comply with IP65/NEMA4 for protection against dust and water. The more exposed I/O ports have been placed in the bottom to protect against vertically falling water. Adopted with wide-temperature tolerance components and heating mechanism, TREK-756 can operate at -30 ~ 50° C. A rich variety of wireless and wide area network interface modules can be integrated for communication and positioning functions.

Specifications

- **CPU** — Onboard VIA Eden 800 MHz CPU
- **System Memory** — Supports DDR 200/266 SDRAM up to 2 GB
- **SSD** — Supports one internal CompactFlash type II socket
- **HDD** — One IDE interface for 2.5" HDD
- **MiniPCI** — One type III A/B slot
- **Network (LAN)** — 10/100Base-T Ethernet interface; 1000Base-T optional
- **Dimensions (W x H x D)** 310 x 255 x 86 mm
- **Weight** — 4.8 kg (with HDD and DDR)

LCD Display

- **Display Type** — 12.1" TFT LCD
- **Resolution (H x V)** — SVGA 800 x 600
- **Colors** — 262 K
- **Pixel Pitch (H x V)** — 0.264 x 0.264 mm
- **Contrast Ratio** — 500:1 Typical
- **Viewing Angle (H/V)** — 140°/110°
- **Luminance** — 400 nits, 5% ~ 100% dimmable brightness control
- **Lamp Life Time** — 50,000 hours

Touchscreen (Optional)

- **Type** — Analog resistive
- **Controller** — RS-232 interface (COM4)

Power Supply

- **Default 24 V_{DC} Model**
  Input voltage — 19 ~ 36 V_{DC}
- **Optional 12 V_{DC} Model**
  Input voltage — 10 ~ 18 V_{DC}
- **Optional 48 V_{DC} Model**
  Input voltage — 40 ~ 58 V_{DC}

Environmental Specifications

- **Operating Temperature** — 0 ~ 50° C
- **Anti-freeze Operating** — -30 ~ 50° C (-22 ~ 113° F)
- **Relative Humidity** — 10% ~ 95% @ 40° C, non-condensing
- **Shock** — 30 G peak acceleration (11 ms duration)
- **EMC** — CE, FCC Class B
- **Safety** — UL, CUL, CE
- **Vibration** — 1 G (operating with HDD); 3 G (operating with CF card)

ADVANTECH

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Dimensions

Unit: mm

310

90   1.5

255
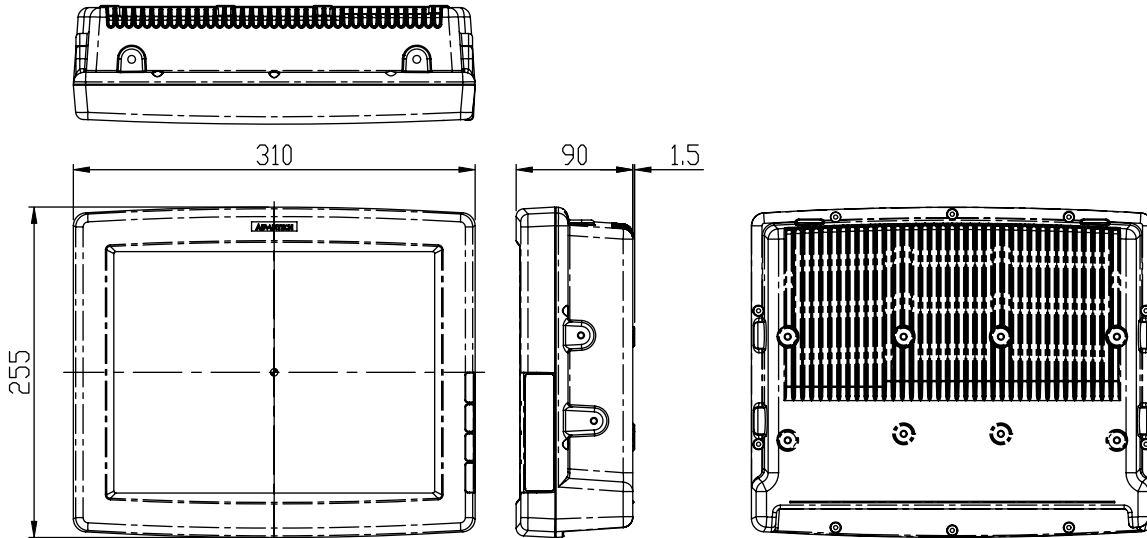
Ordering Information

Basic Models

- **TREK-756R-A0E**   12.1" LCD, 24 V$_{DC}$, Eden 800 MHz, 256 MB RAM, 40 GB HDD, Res. TS
- **TREK-756R-CEA0E**   12.1" LCD, 24 V$_{DC}$, Eden 800 MHz, 128 MB RAM, 128 MB CF card, Res. TS
- **TREK-756R-XPEA0E**   TREK-756R-A0E with XPE

Anti-Freeze Models

- **TREK-756R-FA0E**   TREK-756R-A0E anti-freeze model with 2G CF card
- **TREK-756R-FXPEA0E**   TREK-756R-FA0E with XPE
- **TREK-756R-FCEA0E**   TREK-756R-CEA0E anti-freeze model

Optional Items

- **TREK-UNIARM-01**   Universal arm for TREK
- **I/O-CV-01**   IP53 I/O cover for TREK
- **RAM-MOUNT-03**   VESA plate RAM mount
- **11 Mbps IEEE 802.11b compliant PCMCIA WLAN card**
  WLAN-325HAE   PCMCIA WLAN card for USA (detachable antenna, RoHS compliant)
  WLAN-325HUE   PCMCIA WLAN card for Europe (detachable antenna, RoHS compliant)
- **TREK-756 with AC power, 12 V$_{DC}$ or 48 V$_{DC}$ power (Production upon order)**
- **IEEE 802.11b/g MiniPCI or USB WLAN module**
- **Optional GPS receiver module**
- **Optional quad band GSM/GPRS module**

Fully Integrated I/O

A   B   C   D   E   F   G

H   I   J
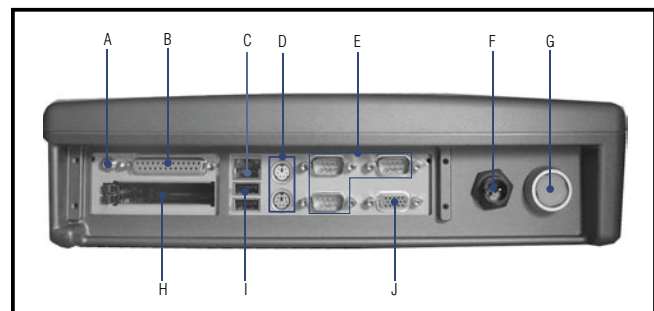
A. Line-out
B. SPP/EPP/ECP parallel port
C. 10/100Base-T Ethernet port
D. PS/2 keyboard and mouse port
E. 3 x serial ports:
   2 x RS-232
   1 x RS-232/422/485

F. DC power inlet (IP66)
G. Power switch (IP65)
H. 2 x PCMCIA Type II / 1 x Type III
I. 2 x USB 2.0 ports
J. VGA port