



## The Inveneo Communications Station

### The low-power, easy-to-use voice and data solution for rural and remote installations

The Inveneo Communications Station is designed for use by organizations in rural locations such as field offices or clinics. It provides end-users with computing, telephony, and networking capabilities when deployed as a part of the Inveneo Communications System.

The Communications Station includes the following components:

- Ultra-low-power computer with keyboard and mouse
- VoIP Analog Telephone Adapter (ATA) with analog telephone
- LCD monitor with mounted case for computer and ATA
- 12-Volt DC operation or 100-240 VAC (AC adapter included)
- 2GB Flash memory (standard) or 40GB hard drive option
- Inveneo Desktop 2.0 Open source software; Open Office, instant messaging, and other applications

(Xubuntu Linux or Windows XP optional)

The Inveneo Communications Station is designed for use in challenging environments. Existing off-the-shelf products from leading manufacturers have been carefully selected and integrated into a single compact unit designed to meet the requirements of organizations operating in rural areas anywhere in the world.

Key design features include:

- Solid-state design eliminates fans, hard disks, or moving parts of any kind, making it ideal for use in extreme environments (2GB flash unit)
- Very low power consumption allows the units to operate efficiently on 12 volts DC, with renewable power from solar panels or other sources
- Simple interface design enables novice users to be productive with a minimum of training

- Built-in flexibility allows partners and customers to add and localize applications
- Affordable and sustainable cost model combines a low purchase price with low ongoing operating expenses

The Inveneo Communications Station can be used for a variety of applications, such as community development, health care, microfinance, and small business entrepreneurship.

Since the Inveneo Communications Station is an open hardware design that operates using Open Source software (such as Linux, OpenOffice and more), all plans and software are published through Inveneo's website. Developers are encouraged to improve and customize solutions for their own needs.

Inveneo can provide customization services for organizations that need specialized configurations of hardware or software for classrooms and such.

# Inveneo Communications Station Specifications

## Hardware Computing Unit

### Processor

AMD Geode LX800 (500Mhz)

### I/O Peripheral Support

Four USB 2.0 ports

Keyboard: enhanced USB with Window keys (104 keys) included

Mouse: USB optical wheel mouse

VGA-type video output (DB-15)

Local printers via USB or LAN

Built-in Kensington security slot (cable lock sold separately)

### Networking

10/100Base-T Fast Ethernet, twisted pair (RJ-45)

USB WiFi adaptor 802.11b/g (optional)

### Display support

VESA monitor support, with Display Data Control for automatic setting and resolution and refresh rate

Max. resolution and refresh rates (Hz)

64k colors: 1280x1024 @ 100Hz

1600x1200 @ 90 Hz

16.7M colors: 1280x1024 @ 85 Hz

### Audio

Output: 1/8 inch mini connector, full 16-bit stereo, 48 KHz sample rate

Input: 1/8 inch 8-bit mini microphone

### Environmental

Powered on: 32° to 104°F (0° to 40°C)

Powered off: -14° to 140°F (-10° to 60°C)

Convection cooling, fanless design

Humidity 20% to 80% non-condensing

Altitude range 0 to 10,000 feet

(0 to 3,050 meters) operating

### Power Auto sensing

100-240v Volt AC, 50/60 Hz with included power adaptor or 12-volt DC direct to unit

Average power usage: 8 Watt (set-up: device connected with 1 USB keyboard, 1 USB optical mouse, 40 GB harddisk)

### Memory

256 MB Ram (DDR SO-DIMM)

40 GB 2.5" 4200 RPM harddisk

2 GB flash memory

### Operating system

Inveneo's Linux distribution based on Xubuntu; other Linux distributions and Microsoft Windows XP capable

### Regulatory compliance

German EKI-ITB 2000, ISO 9241-3/-8, cULus 60950, TÜV-GS, EN60950, FCC Class B, CE, VCCI, C-Tick

## Liquid Crystal Display

### Panel Type

Anti-glare, active TFT-LCD

### Size

14.1" diagonal

### Maximum Viewable Size

14.1 inch (35.8 cm)

### Pixel Pitch

0.279 (W) x 0.279 (H) mm

### Brightness

150 cd/m<sup>2</sup> (typical)

### Contrast Ratio

300:1 (typical)

### Response Time

23 ms (typical)

### Viewing Angle (H / V)

80° / 50°

### Max. Resolution

1024 (W) x 768 (H) @ 60 Hz non-interlace

### Display Color

262 K

### Video Input

Analog: 15-pin, D-sub connector

### Display area

11.2 (W) x 8.4 (H) inch

286(W) x 214 (H) mm

### Power Supply

Input voltage: 100-240V / 60-50Hz

Output rating: 12V DC, 3.0A

### Power Consumption

25 watts (maximum), 11 watts (typical),

3 watts (standby)

Audio 2 watts x 2 built-in speakers

### Frequency

Horizontal: 30-48KHz;

Vertical: 50-60Hz

### Operating Conditions

41°F to 95°F (5°C to 35°C),

20%-80% non-condensing humidity

### Storage Conditions

-4°F to 140°F (-20°C to 60°C),

10%-90% non-condensing humidity

### Dimensions(set size)

13.8(W) x 13.6(H) x 5.5(D) inch

350(W) x 345(H) x 140(D) mm

### Safety & EMI

UL, CUL, FCC-B, CE, TÜV-GS



## VoIP and LAN Hardware

### Ports

Two 10/100 RJ-45 Network ports

Two standard phone ports (FXS)

One LAN (connects to PC unit)

One WAN (connects to wireless unit)

### Network protocols

TCP/IP

### Voice protocols

Session Initiation Protocol (SIP) Version 2

### Voice codecs

G.711 a-law, G.711 u-law, G.729a, G.726, G.723.1

### Ringer equivalence no.

5 REN per RJ11 port

### Ring frequency

10 Hz - 40 Hz

### Telephone

Analog Telephone

### FXS port impedance

Eight configurable settings including North America 600 Ohms, European CTR21

### Ring Voltage

60 - 90 Vrms configurable

### Operating Conditions

41°F to 113°F (5°C to 45°C) 10% to 85% non-condensing humidity

### Storage Conditions

-13°F to 185°F (-25°C to 85°C) 5% to 90% non-condensing humidity

### Certificates

FCC, CE, cUL



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