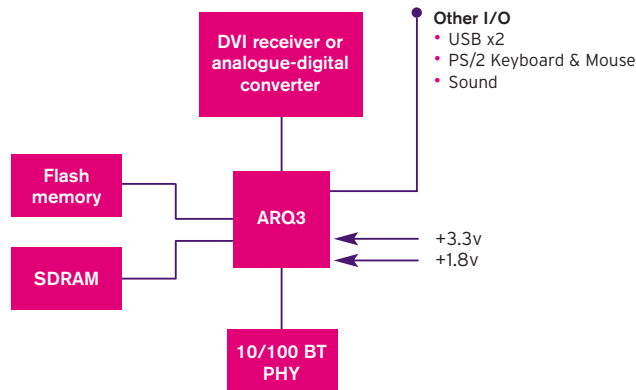


ARQ3 KVM-over-IP Chip



ADVENTIQ

- RealVNC Enterprise Edition Server in ASIC
- High performance KVM functionality
- Ideal for KVM switching and embedded server applications



ARQ3 Typical Configuration

ARQ3 is a high performance ASIC that takes KVM-over-IP to a new level of performance, stability, and integration. One that will enable a new generation of small, low cost KVM-over-IP devices as well as a broad range of embedded and industrial applications.

ARQ3 builds on genuine VNC technology, the de facto standard for cross-platform remote access with more than 100 million downloads worldwide. ARQ3 embeds a RealVNC Enterprise Edition server, capable of supporting remote sessions from either the original open source VNC viewer or the freely available RealVNC version. Universal compatibility is

- Get VNC-style remote control even during boot-up or crash situations without loading software on the target computer
- Use freely available VNC or RealVNC viewers on any supported platform
- Industry leading performance suitable for everyday use, not just emergency access
- Suitable for embedding into a wide range of devices

assured by the additional provision of web browser access.

Adventiq's silicon solution uses highly efficient adaptive compression algorithms and innovative video processing techniques to give a significantly improved user experience over a wide range of network bandwidths. Highly robust enterprise grade security is a standard feature.

ARQ3 is a complete hardware and software package backed by unrivalled experience in remote access software, KVM switching systems, computer management and custom ASIC development.



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Hardware Specification

Baseboard Processor

32-bit ARMv4 RISC CPU 200 MHz

Memory Interface

One or two SDRAM interfaces can be used. Connecting both provides additional memory bandwidth for higher-resolution screen modes

Keyboard & Mouse Interfaces

Standard PS/2 mouse and keyboard interfaces (also connectable via USB)

Ethernet Interface

10/100BaseT Ethernet MAC interface

USB Interfaces

USB 2.0 device MAC and PHY (16 endpoints);
USB 2.0 OTG MAC and PHY

Video Interface Compatibility

Video input interface is compatible with common ADCs, DVI receivers, and DVO video sources

Supported Screen Modes

Supports all resolutions up to 1600x1200 @ 60Hz with a colour depth of 24 bits/pixel

Sound

AC97 and I2S interfaces

Hardware-based Encryption

Efficient hardware implementation of DES/ Triple-DES/AES algorithm for high performance encryption and decryption

DC Electrical Characteristics

Voltage: 3.3V

Power consumption - typical 300mA

Environmental

Storage Temp: -20C to +60C

Operating Temp: 0C to 50C

Humidity: 10 to 95% non-condensing

Package Dimensions

484-pin FBGA 23mm x 23mm package

Software Description

VNC (Virtual Network Computing) has become the industry standard for remote control software. VNC is freely and publicly available and has millions of active users throughout the world.

Adventiq's ARQ3 embeds a RealVNC Enterprise Edition server. This is an enhanced version of the industry-standard VNC, developed for use in corporate environments and across the Internet. Designed and built from the ground up by the original inventors of VNC, Enterprise Edition provides robust and easily-administered security with a minimum of fuss.

Key Enterprise Edition features include:

- **Platform Independence** Viewers are available for a wide range of platforms including Windows, Unix, Palm OS and Windows CE
- **Remote Storage/Boot** USB 2.0 Mass storage emulation allows remote drives to appear as locally attached storage

- **Automatic Adaptive Compression** enables use on networks from dial-up to LAN speeds
- **Elegant In-Picture configuration and control menus**
- **One-Port HTTP & VNC** allows VNC Server to serve VNC Viewer for Java and VNC sessions through a single TCP port, simplifying NAT and firewall configuration
- **Integrated Session Security** provides protection from connection snooping, man-in-the-middle attacks and packet-tampering attacks, to name but a few
 - **Server Authentication** uses 2048-bit RSA keys to verify identity
 - **Viewer Authentication** supports both usernames and passwords of up to 256 characters each
 - **Secure Communication with 128-bit AES** - the experts' choice for high performance encryption
- **Platform-Native Authentication** removes the need for separate VNC and system passwords. Users can access their desktops using the same credentials with which they log on to the system.

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