News Highlights – August 2006:

Power Line Communication Developer YITRAN Appoints GLYN as its OEM Distributor for Australia, New Zealand
MICRONAS Releases Headset Codec with USB 2.0 Interface for VoIP and Telephony Applications
FUJITSU Introduces New High-Performance 8-bit Flash Microcontrollers

Power Line Communication Developer YITRAN Appoints GLYN as its OEM Distributor for Australia, New Zealand

Glyn Ltd has been appointed as the OEM distributor of leading Power Line Communication (PLC) solutions provider Yitran for Australia and New Zealand.

Yitran Communication Ltd., previously named ITRAN Communications Ltd., designs and manufactures proprietary digital and mixed-signal integrated circuits for power line communications used for a variety of narrowband and broadband applications, such as energy management and AMR (Automatic Meter Reading), home automation and security, home networking, Internet appliances, and Internet access distribution over existing electrical infrastructure.

Yitran's advanced, extremely reliable, low-cost, high-speed home networking components enables the implementation of broadband and narrowband control networks over power lines. Yitran also develops an advanced line of reliable long-distance components that enable transmission control, telemetry and low-speed data transmission.

HomePlug Powerline Alliance on March 2006 has chosen Yitran's IT800 narrowband technology as the baseline for the HomePlug Command and Control (HPCC) standard from a field of prominent multinational companies. HomePlug Powerline Alliance is the leading global open standards-based organisation for power line communication technologies and is supported by major semiconductor and electronic equipment manufacturers worldwide.

The IT800D SoC (System on a Chip), incorporates the IT800 PHY with a microprocessor that runs Yitran's DLL (Data Link Layer) firmware stored on-chip. The IT800D provides all the benefits of Yitran's high performance DLL (Adaptive back-off CSMA/CA channel access, ACK/unACK services, retransmissions and more) on top of the IT800 PHY. The IT800D is an ideal solution for a variety of command and control applications requiring robust performance and speeds of up to 7.5Kbps such as energy management, AMR, and home automation. The IT800D is also available in small form-factor modules for easier system integration and faster product development. IT800D ICs, modules, starter kits, and development kits are available from Glyn.

Aside from the IT800D narrowband solutions, Yitran also has broadband products such as the ITM1 PLC modem PHY IC (up to 2.5Mbps), broadband PLC node PHY and MAC chipsets (up to 2.5Mbps), and ITM10 PLC modem IC (up to 24Mbps). These broadband products are targeted for high-speed applications such as home entertainment and multimedia, home networking, SOHO, VoIP, xDSL or Cable modem extension, and Internet access distribution.

MICRONAS Releases Headset Codec with USB 2.0 Interface for VoIP and Telephony Applications

Micronas (available through Glyn High-Tech Distribution), a leading supplier of innovative application-specific IC system solutions for consumer electronics, announces the availability of its UAC 355xB high performance system-on-chip family for VoIP telephony, USB Phone and PC headset applications.

The UAC355xB is a fully integrated headset codec (stereo audio ADC and DAC) with a DSP and a USB 2.0 full-speed interface controller. The integrated DSP handles all common sample rates and supports audio processing such as volume, bass, and treble. The programmable 5-band parametric equalizer enables adjustments of the frequency response of the applied headphone. Dynamic bass management is also provided. Integrated amplifiers allow direct headset connection including a subwoofer output with internal split filter. The microphone signal can be mixed to the USB audio data for sidetone or karaoke applications.

UAC355xB supports 16-bit mono/stereo and 24-bit stereo for playback (D/A converter), and 8-bit mono and 16-bit mono/stereo for record (A/D converter). Performance figures include THD better than -85dB and SNR of 96 dB (typ.) for the D/A converter and THD better than -85dB and SNR of 92 dB (typ.) for the A/D converter. Generic ISO-playback endpoint is also provided for various applications (Dolby Digital, MP3) via the I2S I/O interface.

The USB 2.0 full-speed interface controller uses the general-purpose inputs and outputs to connect volume and mute buttons, LEDs, etc. USB HID device class for audio controls is supported.

Via I2C master and appropriate PC application software, more complex peripherals can be controlled. The UAC 355xB itself can be remote-controlled via I2C slave operation. This allows communication pipelining between a peripheral I2C system controller and the USB host.

The use of an external EEPROM allows programmable VID/PID, strings, and even more complex customization with "plug-ins". These are small downloadable code sections, which can be added to the internal ROM.

UAC355xB is available in PMQFP64-2 and PQFN64-1 packages. Members of the UAC355xB family include the UAC3556B and UAC3554B with UAC3556B being a USB codec with standard ROM firmware and bootloader for 8KB firmware download. UAC3554B is the mask-programmed version. A USB audio DAC (UAC3553B) is also available in PMQFP44-1 package if microphone input is not required.

Reference designs, application boards and SDK are available from Glyn High-Tech Distribution.

FUJITSU Introduces New High-Performance 8-bit Flash Microcontrollers
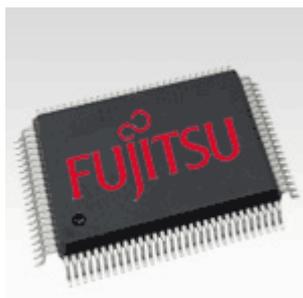
Fujitsu Microelectronics, available through Glyn High-Tech Distribution, has announced the launch of its new 8-bit Flash microcontrollers, MB95F146 and MB95F156H, for consumer electronics, security, and industrial control applications requiring high-speed and low-power consumption performance at low costs.

Fujitsu's F2MC-8FX 8-bit microcontroller family, introduced since March 2004, has been widely used in various digital A/V and white goods products. Both MB95F146 and MB95F156H comes with 32K Flash, 1K RAM, two UARTs, eight 10-bit A/D channels, up to 9 multifunction Programmable Pulse Generator 8/16-bit timers, clock counter,

watchdog timer, up to 8 external interrupts, and up to 24 and 39 I/O ports respectively. Both MCUs perform count operations at intervals up to one minute, providing the lowest possible power consumption in target applications. Both versions deliver execution times of 100ns at 10 MHz.

The MB95F156H also has an I2C interface and LCD controller (16 segments x 4 common pins) making it an ideal choice for applications requiring an LCD display such as portable radio equipment, remote control, air-conditioning systems and other applications.

The MB95F146 has a supply voltage of 1.8 to 3.6V and is available in 32-pin LQFP package. On the other hand, MB95F156H has a supply voltage of 2.5 to 5.5V and is available in 48-pin or 52-pin LQFP package.

The common evaluation board and full set of development tools for Fujitsu's F2MC-8FX 8-bit microcontrollers are already available, thus all products in this family can be developed in a single evaluation environment.

For more information about GLYN Ltd products, please visit our website at www.glyn.com.au

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