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Q1/2007

Send Data, Video and Audio via the Existing Electrical Wiring in a Home or Small Business

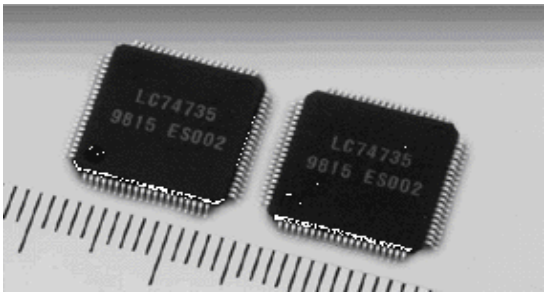
InTellon NO NEW WIRES.

Intellon's Powerline Communications (PLC) technology allows the connection and networking of Home Entertainment and Computing.

In effect, every electrical outlet becomes a network connection point, without adding any new wires! The global "Homeplug" standard allows easy interoperability.

Connect and network together:
Set-Top boxes, Audio/Video products, Flat Screen Displays, Security Cameras, Computing Devices and Accessories.

Part NO.	Description	Phy Rate	Peak Throughput	Host Interfaces	10K Pieces
INT5200	Home Plug 1.0	14 Mb/s	8Mb/s	MII, USB, Enet	$9.98
INT5500CS	Home Plug 1.0 w/Turbo	85Mb/s	35Mb/s	MII, Enet	$12.65
INT6000	Home Plug AV	200Mb/s	120Mb/s	MII, Enet, PCI, TS	$18.64



SANYO

Sanyo On Screen Display ICs with Currency Font

Sanyo have produced a market-leading OSD (On Screen Display) line-up to support the increasing demand for integrated technology and the ability to present graphical information on displays.

FEATURES INCLUDE:
- Straight-forward CPU interfacing
- Changeable character size
- QVGA and WVGA resolution support.
- External memory for larger character maps
- Built in sync. separator to allow industry standard video outputs as well as external control interfacing

Key benefits of OSD from Sanyo

- Sanyo is still actively promoting and developing new OSD controllers.
- Sanyo supports various character and graphic formats.
- Sanyo supports all main video output signals.

Development boards are available from £50

www.sequoia.co.uk
email: sales@sequoia.co.uk
T: 0118 9769000
F: 0118 9769020

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RENESAS

New CAN enabled micros at low prices

The R8C/23 is based on the R8C 16 bit CPU Core, offering high performance at 8 bit price levels. Apart from full CAN 2.0 on board, the R8C/23 offers a maximum of 64K memory space (ROM or Flash), a maximum operating frequency of 20MHz along with Internal Flash Memory programmable on a single power source. The R8C/23 offers low power and a wide operating voltage and temperature specification.

Key Features:

- 8-bit Multifunction Timer with 8-bit prescaler (Timer RA and RB): 2 channels
- Input Capture/Output Compare Timer (Timer RD): 16-bit x 2 channels
- Timer with compare match function (Timer RE): 1 channel
- UART/Clock Synchronous Serial Interface: 1 channel
- UART: 1 channel
- I^2C-bus Interface (IIC)/Chip-select Clock Synchronous Serial Interface (SSU): 1 channel
- LIN Module: 1 channel (Timer RA, UART0)
- CAN Module (2.0B): 1 channel, 16 slots
- 10-bit A/D Converter: 12 channels
- Watchdog Timer
- Clock Generation Circuits: XIN Clock Generation Circuit, On-chip Oscillator (High/Low Speed)
- Oscillation Stop Detection Function
- Voltage Detection Circuit
- Power-On Reset Circuit
- I/O Ports: 41
- External Interrupt Pins: 8
- Data Flash: 2KB

Development Tools

One of the easiest ways to evaluate the R8C/23 is via the low cost starter kit. The R0K521237S000BE is available for £125 and consists of a CPU board, LCD module, Emulator, C compiler and debugger.

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anadigm

Audio Active Subwoofer Module Reference Design

Anadigm's Sonicmaster 1 ™ is a subwoofer module solution for quickly upgrading existing subwoofer plate amplifier designs with an enhanced feature set that allows for state-of-the-art subwoofers with minimal cost and negligible product development effort. Anadigm's audio dpASP (dynamically programmable Analogue Signal Processor) makes it simple to add AutoEQ, or just open-loop equalisation and band-pass filtering and limiter projection to an active subwoofer design.

Sonicmaster1 is available from Anadigm a number of international OEM and ODM subwoofer plate amplifier vendors as a separate daughter board or integrated plate amp design. It comes out of the box with useable presets; no engineering time or money is wasted on a steep learning curve. You may customise the default settings using an easy, graphics based package. There is no need to teach yourself how to use a DSP, or hire a DSP programmer, this system works in the analogue domain. If you want to get under the bonnet and adjust settings for, say, the compressor, it is simple using the supplied software.

Sonicmaster1 ™ Features

- 100% analogue signal path for Pure Analogue Sound Quality.
- Options for push button or slider adjust for EQ and crossover frequency and gain.
- Option to add LCD module.
- Options for factory pre-set and end user adjustments for EQ and compression.
- Option for custom installer to match subwoofer parameters to the room.
- One base circuit can be tuned to support multiple products.
- Preconfigured analogue modules allow user control of subsonic filter, audio compressor, Linkwitz transform, equaliser and low pass filter.
- All functions can be dynamically configured under simple software control: complex filtering (high and low pass, notch, Band pass, Linkwitz transform), compression, automatic gain control, signal generation and mixers.
- Programmable standby power mode.
- Auto mute feature eliminates low level noise between cuts or when in standby mode.
- Stereo inputs mixed properly.
- Optional active differential input connections.
- Full-featured starter kit for evaluation including board, embedded software and PC GUI.
- Additionally, the Sonicmaster1 is compatible with Auto room EQ
- Correction for reflections
- Correct crossover phase

Development Tools:

The Sonicmaster1 evaluation board is available for £120.

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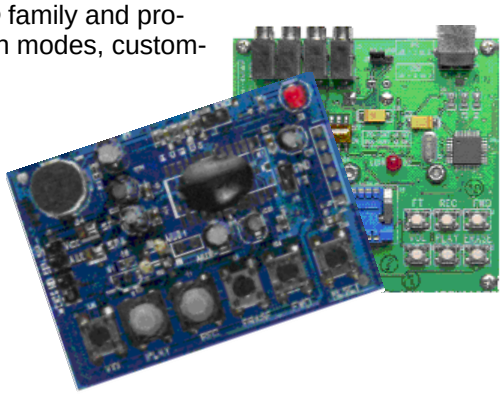
Speech storage and the Winbond 1700 series Chipcorder Family

The ISD1700 series is the newest addition to the Winbond Chipcorder ® family and provides several important new features including voice alert, dual operation modes, customisable sound effects and message management.



Additionally duration is user selectable in a range from 20 to 480 seconds, depending on the specific part and the selected sampling frequency. The new features make the ISD700 Series ideal for low-cost single-chip multi-message record and playback applications.

Features

- Dual operation modes
  - ◊ Standalone Mode: push-button interface
  - ◊ Embedded Mode: industrial standard SPI interface
- Integrated message management system
- Message and operation indicators
- Two independent input channels
- Dual output channels
- All the standard Chipcorder features
- Available in 28 pin TSOP, 28 pin SOIC and 28 pin DIP package
- Commercial and industrial temperature specifications

Development Tools

- **Demonstration boards available from £10 (ISD-COB17XX)**
- **USB interface evaluation board available from £100. (ISD-ES17XX_USB_PB)**

Mesh Networking introduced to Powerful RF Modules

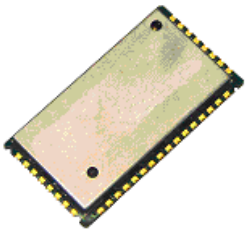
With a transmission range of up to 4Km (line of sight) and data rates of up to 115.2 Kbps the Tiny Pro and Tiny Plus industrial Modules are the most versatile 868 MHz products in the market.

In addition to the standard in-house firmware with multiple advanced protocol modes, Tiny Pro and Tiny Plus offer an embedded firmware that allows the building of true low consumption Mesh Networks. Operating at 868 MHz, this firmware combines the reliability of mesh networking with long range, thus meeting the needs of many industrial applications. Furthermore, as even the relays in a Mesh network are low power nodes, this offers the possibility to build true low consumption networks.

Features	Tiny Pro	Tiny Plus
Range	Up to 4000m (L.O.S)	Up to 1500m (L.O.S)
Output Power	500 mW	25 mW
Radio Data Rate	40 Kbps	Up to 38.4 Kbps
Serial Data Rate	Up to 115.2 Kbps	Up to 115.2 Kbps
Sensitivity (BER < 10-3)	-100 dBm	-100 dBm
Power Supply	3.6 V	3-3.6 V
Consumption	Rx: 35 mA	35 mA
	Tx: 550 mA	80 mA
Standby:	<5 uA	< 5 uA
Frequency	868 MHz	868 MHz
Size	38 x 21 x 3 mm	38 x 21 x 3 mm

Development Tools

Tiny Pro and Tiny Plus development tools comprising two communication boards, two modules and all software and accessories are available at £390.



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Jennic
TECHNOLOGY FOR A CHANGING WORLD

JN5139
Low Power Wireless Microcontroller

The JN5139 is the first part of JN513X family of low power, low cost wireless microcontrollers suitable for IEEE802.15.4 and ZigBee applications. Each device integrates a 32-bit RISC processor, with a fully compliant 2.4GHz IEEE802.15.4 transceiver, 192kB of ROM, a selection of RAM sizes from 8kB to 96kB, and a rich mixture of analogue and digital peripherals.
The cost-sensitive ROM/RAM architecture supports the storage of system software, including protocol stacks, routing tables and application code/ data. Each device integrates hardware MAC and AES encryption accelera-tors, power saving and timed sleep modes, and mechanisms for security key and program code encryption. These features all make for a highly efficient, low power, single chip wireless microcontroller for battery-powered applications. These products are available as a single chip, as well as in mod-ule format.

Features

Transceiver

- 2.4GHz IEEE802.15.4 compliant
- 128-bit AES security processor
- MAC accelerator with packet formatting, CRCs, address check, auto-acks, timers
- Integrated power management and sleep oscillator for low power
- On-chip power regulation for 2.2V to 3.6V Battery operation
- Deep sleep current <0.4µA
- Sleep current with active beacon timer <1.5µA
- Needs minimum of external components
- Rx current 39mA
- Tx current 39mA
- Receiver sensitivity -97dBm
- Transmit power +3dBm

Microcontroller

- 32-bit RISC processor sustains 32MIPs With low power
- 192kB ROM stores system code, including
- protocol stack
- 8kB, 16kB, 32kB or 96kBRAM (JN5139)
- stores system data and optionally boot loaded program code
- 48-byte OTP eFuse, stores MAC ID on-chip, offers AES based code encryption feature
- 4-input 12-bit ADC, 2 11-bit DACs, 2 comparators
- 2 Application timer/counters, 3 system timers
- 2 UARTs (one for debug)
- SPI port with 5 selects
- 2-wire serial interface
- Up to 21 GPIO

Development Kit

JN5139 development kit, including a Co-ordinator, two high power Sensor boards, two sensor boards with all accessories and software are now available.

JN5139-EK000802.15.4	Development Kit	£555
JN5139-EK010	Zigbee Development Kit	£720

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