



WIRELESS AUDIO DEMO BOARD

FEATURES

- **AUDIO OPTIONS**
 - EXTERNAL CD OR MP3 PLAYER SUCH AS AN iPod
 - EMBEDDED FLASH MEMORY CONTAINING MP3 FILES
- **CD QUALITY AUDIO OUTPUT**
 - SPEAKERS OR HEADPHONES
 - WIRELESS POWER AMPLIFIER UP TO 150FT RANGE
- **BATTERY OR EXTERNAL DC POWER**
- **CONTROL FUNCTIONS**
 - PLAY / PAUSE
 - SONG SELECT
 - VOLUME ADJUST



TX BOARD



RX BOARD

FEATURED SUPPLIERS

NEC
NEC Electronics America

NEC Electronics America is a developer and supplier of a broad range of advanced semiconductor and semiconductor-based technology, system and platform solutions. NEC offers an extensive lineup of high-speed, high-capacity memory products and 4-bit to 64-bit Microcontrollers and Microprocessors along with a robust and powerful development environment designed for ease of implementation.



SST specializes in marketing a diverse range of nonvolatile memory solutions based on SST's proprietary, patented SuperFlash™ technology as well as FlashFlex51 Microcontrollers and RF Power Amplifiers. SST's product families include various densities and high functionality for the industrial, digital consumer, networking, wireless communications and computing markets.

NORDIC
SEMICONDUCTOR

Nordic Semiconductor designs, manufactures and delivers dependable off-the-shelf wireless solutions, including wireless audio and transceivers including an embedded microcontroller. Nordic's wireless components provide effective short-range wireless communication in the 2.4GHz to 433MHz frequency range and are fully RF tested and designed to comply with local telecommunications regulations across the globe.

TOIREX
SEMICONDUCTOR LTD.

Torex Semiconductor focuses on the development and production of reliable power supply and power management ICs including Voltage Detectors and Regulators, DC/DC Converters, Charge Pump ICs and Power MOSFETs. Torex continues to meet and exceed the needs of today's design engineers looking for high-precision, low-cost, small footprint power management ICs that increase the amount of design freedom in their applications.

MICRONAS

Micronas is a worldwide innovator in the design of cutting-edge, high-quality IC solutions for the consumer electronics market. As a market leader in global TV system solutions, Micronas serves all major consumer brands worldwide and uses its experience and expertise to forge ahead into new markets emerging through the digitization of audio and video content.

GOT QUESTIONS? 1 (877) 466-9722

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SYMMETRY

ELECTRONICS CORPORATION





WIRELESS AUDIO DEMO BOARD

CONTROLLED BY NEC 8-BIT MICROCONTROLLER 78K0S/KY1+ – UPD78F9212

- EMBEDDED MEMORY
 - 8 KBYTES FLASH
 - 128 BYTES RAM
- ULTRA SMALL PACKAGE SIZE
 - 2 X 2.3MM WCSP (AVAILABLE)
- MULTI CHANNEL A/D CONVERTER
 - 4 CHANNEL 10-BIT A/D
- SAFETY FEATURES
 - LOW VOLTAGE INDICATOR (LVI)
 - POWER ON CLEAR CIRCUIT
 - NO NEED FOR EXTERNAL RESET AND VOLTAGE DETECTION ICS
 - ENHANCED WATCH DOG TIMER
 - WITH BUILT-IN RING OSC.
- CPU PERFORMANCE
 - 8MHZ INTERNAL OSCILLATOR = NO EXTERNAL CLOCK REQUIRED!
 - 2 TO 10 MHZ EXTERNAL SYSTEM CLOCK OPTION
- UART INTERFACE
- 8-BIT AND 16-BIT TIMERS
- WATCH DOG TIMER (WDT)
 - HAS IT'S OWN BUILT-IN RING CLOCK
- 14 GPIO PINS AVAILABLE

78K0/KB2 – UPD78F0503MC

- EMBEDDED MEMORY
 - 32 KBYTES FLASH
 - 1 KBYTE RAM
- CPU PERFORMANCE
 - 8MHZ INTERNAL OSCILLATOR = NO EXTERNAL CLOCK REQUIRED!
 - 2 TO 20 MHZ EXTERNAL X1 SYSTEM CLOCK
- MULTI CHANNEL A/D CONVERTER
 - 4 CHANNEL 10-BIT A/D
- MULTIPLE SERIAL PORTS
 - UART
 - CSI (SPI COMPATIBLE)/ UART
 - I2C
- 16 LEVEL LOW VOLTAGE INDICATOR(LVI)
 - MONITOR A POWER SOURCE OTHER THAN VDD
- FAST STARTUP TIME
 - FULL SPEED OPERATION IN 5US AFTER RESET

SST RF POWER AMPLIFIER – SST12LP00

- 29 DB POWER GAIN
- HIGHLY EFFICIENT LINEAR AMPLIFIER
 - ICQ ~ 10MA
- >50% POWER ADDED EFFICIENCY @ 23 dBm

SST SERIAL FLASH – SST25VF016B

- 16MBIT (2MX8), 50MHZ
- 512KBIT – 128MBIT AVAILABLE
- FLEXIBLE ERASE (BLOCK, CHIP, SECTORS)
 - 4KB, 32KB, 64KB SECTORS
- SPI INTERFACE
 - PIN COMPATIBLE W/SPI EEPROMS
- HARDWARE WRITE PROTECTION, WP# PIN

NORDIC 2.4GHZ WIRELESS AUDIO STREAMING TRANSCEIVER – nRF24Z1

- CRYSTAL CLEAR CD QUALITY STEREO AUDIO
 - OUTPUT: 16-BIT 48KSAMPLE/SEC WITHOUT COMPRESSION
 - INPUT: UP TO 24-BIT 96K SAMPLES/SEC
 - 4MBIT/SEC DATA RATE
- INDUSTRY STANDARD AUDIO INTERFACES
 - I2S
 - S/PDIF
- ADVANCED FREQUENCY HOPPING
 - AVOIDS INTERFERENCE
- DIGITAL CONTROL INFORMATION CHANNEL IN PARALLEL TO AUDIO
 - UP TO 50KBIT/SEC
 - PLAY/PAUSE
 - SPI OR I2C COMPATIBLE
- ON CHIP VOLTAGE REGULATOR
 - 1.9V – 3.6V SUPPLY

TOREX POWER MANAGEMENT

LDO – XC6219B322MR

- HIGH SPEED LOW DROPOUT VOLTAGE REGULATOR
- HIGH RIPPLE REJECTION 65dB (10KHZ)
- HIGH ACCURACY 1% (VOUT < 3.0V)
- LOW POWER CONSUMPTION 25UA (TYP)
- CE PIN FOR ON/OFF,
- LOW ESR CAP COMPATIBLE

DC/DC CONVERTER– XC9101D09AKR

- DC-DC CONTROLLED STEP-UP CONVERTER
- BUILT-IN N-CHANNEL TRANSISTOR
- CE PIN OPTION FOR SHUT-DOWN

POWER MOSFET - XP161A1355PR

- POWER MOSFET WITH HIGH SPEED SWITCHING

▪ FEATURED TECHNOLOGIES



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