



REResolution supporting range of LCD kits



RE2 with GPS and GPRS Module

KEY FEATURES

- ▶ Very low power RISC based processor - typical power profile of circa 2W
- ▶ 600/720MHz ARM Cortex A8 430/520MHz C64x DSP
- ▶ Neon Floating Point
- ▶ Power VR Graphics Engine
- ▶ Open GL ES 2.0 Support
- ▶ HD MPEG-4 Video Decoder
- ▶ Four USB 2.0 host ports
- ▶ One USB 2.0 device port
- ▶ Two RS232 and RS485 serial ports
- ▶ 12 off GPIO channels
- ▶ Camera port
- ▶ Audio
- ▶ Wi-fi and Bluetooth
- ▶ DVI and LCD interface

RE2 SINGLE BOARD COMPUTER

Following the success of RE1, the RE2 board eclipses the field in terms of performance per watt, with the graphics capability to smoothly drive 720p resolution video content. Board power dissipation is typically circa 3 watts at 720MHz, making to RE2 an environmentally attractive product with the power to drive a wide range of applications, including graphical demanding output. The RE2 single board computer (SBC) has been designed to be used with the innovative REResolution display kit, bringing together all the basic building blocks needed for a versatile embedded HMI module. An optional extended temperature board version of -40°C to +85°C at 600MHz gives the unit an edge in rugged environments.

Retaining all of the key hardware features of the RE1, the RE2 includes 256MB LPDDR memory and 512MB Flash memory, Serial Ports (3), Ethernet, Audio, Touch Screen controller, optional SD or MMC card, USB Host Ports (4), USB Device Port (1) and 12 general purpose I/Os. Additionally, Blue Chip have added USB 2.0 upgrades, a DVI/HDMI port, camera interface, Wi-fi and Bluetooth. These standard I/O interfaces are available on standard connectors on the rear side of the main CPU board, maintaining the same positioning as the RE1 for backwards compatibility. Software drivers are provided for each of these I/O functions.

An innovative expansion port is available to accommodate a range of flexible add-on modules, for example an OTS CM1 module brings full GPRS, GPS functionality to the RE2, ideal for telematics and in-vehicle applications. Alternatively customers can use the port to add specific custom requirements, we can handle this or simply provide the board schematics and expertise to support you own designs. All of this functionality has been designed into a board similar in size to a playing card. Backwards compatible with the RE1 board, the RE2 is an impressive addition to the REResolution range.

RE 2 SINGLE BOARD COMPUTER TECHNICAL SPECIFICATION

System

- ▶ ARM CPU - 600/720MHz ARM Cortex A8 /430MHz C65X DSP
- ▶ 256MB on board LP DDR memory
- ▶ 512MB onboard flash memory
- ▶ Customer Splash screen option
- ▶ Power VR Graphics

Local Storage

- ▶ Provision for SD card
- ▶ 4 USB 2.0 sockets for USB flash drives

Operating System Support

- ▶ Windows CE 6.0.
- ▶ Linux
- ▶ QNX and VX Works - please consult with Sales

Local Area Network

- ▶ 10/100bit Ethernet
- ▶ Wi-fi (optional)
- ▶ Blue tooth (optional)
- ▶ Optional GPRS, GPS via add on CM1 module

Expansion

- ▶ Expansion bus

Enhanced IO

- ▶ Four USB 2.0 host ports
- ▶ One USB 2.0 device port
- ▶ Two UART RS232 and one RS485 compatible serial port
- ▶ One IrDA
- ▶ 12 I/O /keypad operation (mix/match)
- ▶ System Status LED

Power

- ▶ Single 7V to 36V DC supply
- ▶ Power management and suspend-mode operation

Display/Audio

- ▶ DVI interface (HDMI Connector)
- ▶ Colour TFT interface
- ▶ Resolutions up to 720p supported
- ▶ Support for a 4 wire resistive touch panel
- ▶ Stereo line out, stereo line in and microphone
- ▶ Camera port
- ▶ REsolution display kit supporting range of LCD kits

System Management

- ▶ Watchdog Timer
- ▶ Real time clock with battery back up support

Environmentals/Mechanicals

- ▶ 70 x 100mm with four corner mounting
- ▶ Operating temperature range :
Normal 0°C to +60°C
Extended -40°C to +85°C option
- ▶ Relative humidity: 10 - 90% non-condensing
- ▶ Vibration
10Hz to 55Hz at 2mm displacement
55Hz to 150Hz at 2g peak acceleration
- ▶ EMC
R&TTE
EN55022 Class B – Emissions.
EN55024 Susceptibility
- ▶ Designed for compliance with FCC Class B
- ▶ Safety - EN60950, UL60950 Third edition

Cable Sets/Misc

- ▶ Audio Cable
- ▶ Cable for USB 3 & 4
- ▶ RS232 Cable
- ▶ RS232/422/485 Cable
- ▶ Utility Cable
- ▶ Misc Cable (I2S, GPIO, IRDA)
- ▶ Mains PSU
- ▶ Camera Interface
- ▶ GPS, GPRS Module
- ▶ Wifi, Bluetooth, GPS and GPRS aerials
- ▶ Enclosure