



BEST APPLICATION OF RF WIRELESS DESIGN

LX INNOVATIONS

Workout Monitoring Device, intended for deployment in professional gyms and fitness centres, incorporates feedback both cardiovascular and weights training. The device logs all aspects of the user's workout and transmits the data wirelessly to a base station in the gym via ZigBee throughout the workout. The base station then uploads this data onto a personalised website and sends the user regular email updates. The website also provides information for the user such as other suggested exercises and ways of improving their technique.

NAVICO

Navico's BR24 Broadband Radar is based on a fully solid state transmitter instead of a magnetron. Although it operates in the same band as most recreational marine radars (X-Band 9.3 – 9.4GHz), its transmit signal is a continuous (1ms) burst instead of a short (1us) pulse. In technical terms, the BR24 is a FMCW (frequency modulated continuous wave) radar.

ORBIT COMMUNICATIONS

The BodyGuard proximity alarm system has been designed to help save lives by lowering the risk of collision between moving objects. It works by setting up an invisible shield around the object being protected. Whenever this invisible shield is penetrated by another object (that is also fitted with a BodyGuard unit), an alarm is activated to warn the driver/operator to pay attention. The BodyGuard proximity alarm system provides an effective method of protecting people, vehicles and property from injury and damage resulting from collision. The system has wide ranging applications that involve personnel, forklifts, cranes, heavy vehicles and moving machinery.

SILVERTONE ELECTRONICS

It is possible with elaborate autopilots to use auto land and take-off functionality for Unmanned Aerial Vehicles (UAV), but this requires a very time consuming set-up period and is much influenced by changing weather conditions. This can extend to the point where a change in barometric pressure for example between the time during which the take-off set-up was done and the time the landing is undertaken may result in the aircraft experiencing a heavy landing due to an incorrect reading in the barometric altimeter. The Silvertone Flamingo UAV overcomes this difficulty by using a real time RF link to effect manual control of all landings and take-offs.

BEST APPLICATION OF FIELD PROGRAMMABLE LOGIC

ADAPTRONIC ELECTRONICS

Adaptronic's e1280s is a 'universal ECU' that enables users to write scripting language based on fundamental calculation elements, such as summers, PID controllers, lookup tables and so on. This script is displayed and edited graphically on a PC, and interpreted within the ECU using an Altera Cyclone II FPGA. This gives the user flexibility, serving the conventional aftermarket ECU customers, as well as the educational market, the R+D market for alternative fuel researchers, and OEM ECU developers.

AUDINATE

Audinate's Dante-MY16-AUD audio networking card is an IP over Ethernet networking solution for the AV industry, which is capable of transmitting many channels of high bandwidth, uncompressed sample accurate digital media with imperceptible latency and tight synchronisation.

REDBYTE DESIGNS

Redbyte Design's DECIMATOR-QUAD delivers a Quad-Split that handles any 3G/HD/SD-SDI input format and frame rate in each of the four independent quadrants. Featuring a linked SD-SDI and composite (PAL or NTSC) output, DECIMATOR-QUAD auto detects 26 formats, from all four 3G/HD/SD-SDI inputs and also allows variable aspect ratios per quadrant. Through innovative use of the FPGA, this is achieved with low power consumption and high processing power. Within the FPGA, the ability to have different frame rates and aspect ratios in each independent quadrant, makes this product extremely useful in monitoring.

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