LPRS

easyRadio **Advanced**
embedded
wireless
solution

easyRadio **Advanced**

LPRS continues to develop on the success of easyRadio by introducing to the market a new Advanced range of transmitters and transceivers.

Incorporating our unique easyRadio software protocol, easyRadio Advanced (eRA) modules extend on the simplicity of previous easyRadio (02) modules by remaining true to the original brief of "reducing time to market by removing the complexity associated with the radio software development interface"

Our Advanced easyRadio's allow you, the developer to change many of the parameters of the radio to suit your specific requirements including the ability to change the bandwidth of the radio from 19.2KHz down to 12.5KHz, which means *narrow-band performance on a wide-band budget.*

Other truly innovative features include:

■ A new digital RSSI (Received Signal Strength Indication) which reduces the requirement of the host to handle A/D measurement. This can be called via a simple command for either the current RSSI level or the signal strength of the last received data packet. This value can also be delivered as the first BYTE in the delivered packet.

■ Temporary channel selection allowing the host to scan other channels in real time without storing the settings in internal EEPROM, therefore maximising active the life of the EEPROM

■ A temperature compensator and crystal controlled synthesiser for frequency accuracy less than +/-1KHz over full temperature range.

■ An in-built temperature sensor usable by the host.

■ User configurable self coding system that enables interfacing to other raw data modules in both FSK (FM) and ASK (AM) modulation.
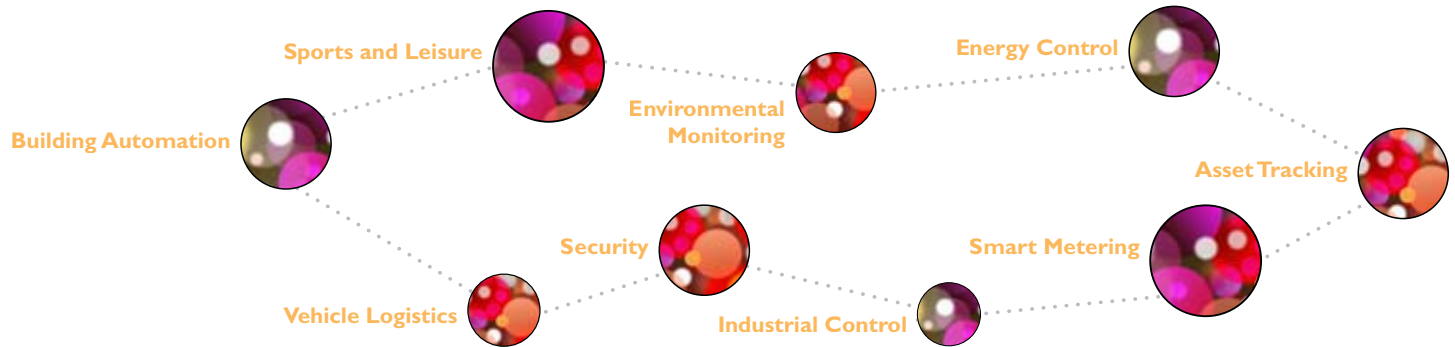
Designed with back compatible pin configuration, current 02 users can easily upgrade to the "Advanced" versions as required. Free flash firmware upgrade tools from LPRS, mean new updates and features can be quickly programmed by your engineer making **a truly future proof solution.**

> "LPRS are not just an important supplier but a key member of our team. They combine quality products with helpful advice and are great people to work with. I would have no problems recommending LPRS to anyone"
>
> *Environmental Monitoring of Art. Case Study - www.lprs.co.uk/case-studies.html*

application

Building Automation

Sports and Leisure

Environmental Monitoring

Energy Control

Asset Tracking

Security

Smart Metering

Vehicle Logistics

Industrial Control

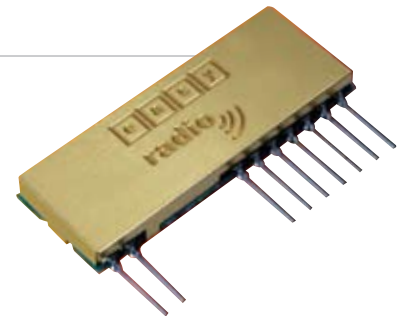**Advanced 433MHz Multi-Frequency Transceiver.**
ERA400TRS

User Programmable:

■ Frequency (Up to 132 channels)
■ Output Power (Up to 10mW)
■ Serial Data Rate 115.20Kbps max.
■ Digital RSSI, Carrier Detect
■ Bandwidths (12.5KHz, 25KHz, 50KHz, 100KHz, 300KHz)
■ FSK & ASK modulation

Technical Specifications

■ Operating temperature -40°C to +85°C	
■ 3.3 – 5V operation	
High sensitivity receiver	
■ -107dBm @ 19.2 Kbps	
■ -112dBm @ 4.8 Kbps	
■ -117dBm @ 2.4 Kbps	
Current	
■ Receiver:	21mA (Max)
■ Transmitter:	32mA (Max)

LPRS

Advanced 433MHz Multi-Frequency Transmitter.

ERA400TS

User Programmable:

- Frequency (Up to 132 channels)
- Output Power (Up to 10mW)
- Serial Data Rate 115.20Kbps max.
  Bandwidths (12.5KHz, 25KHz, 50KHz, 100KHz, 300KHz)
- FSK & ASK modulation

Technical Specifications

- Operating temperature -40°C to +85°C
- 3.3 – 5V operation
- Current
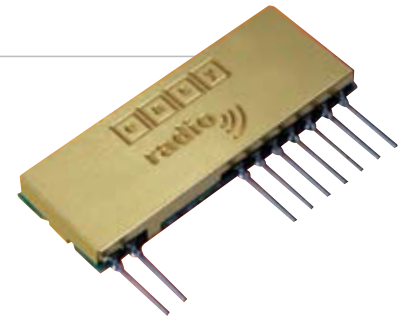- Transmitter: 32mA (Max)

Advanced 868-920MHz Multi-Frequency Transceiver.

ERA900TRS

User Programmable:

- Multiple frequencies @ 868Mhz (EU) and 902-928MHz (EU)
- Output Power up to 5mW @ 869.85MHz (EU), 1mW @ 914MHz (US)
- Serial Data Rate 115.20Kbps max.
- Digital RSSI, Carrier Detect
- Bandwidths (12.5KHz, 25KHz, 50KHz, 100KHz, 300KHz)
- FSK & ASK modulation

Technical Specifications

- Operating temperature -40°C to +85°C
- 3.3 – 5V operation
- High sensitivity receiver
- -107dBm @ 19.2 Kbps
- -112dBm @ 4.8 Kbps
- -117dBm @ 2.4 Kbps
- Current
- Receiver: 21mA (Max)
- Transmitter: 32mA (Max)

Advanced 868-920MHz Multi-Frequency Transmitter.

ERA900TS

User Programmable:

- Multiple frequencies @ 868Mhz (EU) and 902-928MHz (EU)
- Output Power up to 5mW @ 869.85MHz (EU), 1mW @ 914MHz (US)
- Serial Data Rate 115.20Kbps max
- Bandwidths (12.5KHz, 25KHz, 50KHz, 100KHz, 300KHz)
- FSK & ASK modulation

Technical Specifications

- Operating temperature -40°C to +85°C
- 3.3 - 5V operation
- Current
- Transmitter: 32mA (Max)

easyRadio Advanced Development Kit with USB Connection for

ERA400DK and ERA900DK

- Full evaluation platform for the "Advanced" range of easyRadio modules
- Demonstrates the link between two pc's
- Allows configuration of power output frequency and data rate
- Kit includes 2 usb boards, matched antenna and usb leads.
- Software upload from lprs website using link provided (choose modules for evaluation and purchase separately)

> **"The LPRS wireless modules have proved to be transparent in use, making the additional wireless connectivity simple to implement. My experience of using LPRS's easyRadio modules continues to be excellent"**
>
> *Big Cat Cam" Case Study. www.lprs.co.uk/case-studies.html*

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