The SP336 is a highly integrated multiprotocol serial transceiver that contains both RS-232 and RS-485/422 drivers and receivers. The configuration of the SP336 can be reconfigured into eight operating modes including RS-232-only (4Tx/4Rx), RS-485/RS-422-only (2Tx/2Rx) full or half duplex, two RS-232/RS-485/RS-422 mixed-modes, two shutdown modes and a diagnostic loop-back mode. All RS-485 receivers feature high input impedance, which allows up to 256 transceivers on a shared bus. All bus inputs and outputs pins are ESD protected up to IEC 61000-4-2 air-gap, +/-15kV and contact, +/-8kV.

### Features
- Operates from a Single 3.3V or 5V Supply Voltage
- Max. Data Rate – Up to 10 Mbps for RS-485/422 and Up to 1Mbps for RS-232
- Slew Rate Control Feature - Max. Data Rate - Up to 250kbps
- +/- 15kV ESD Protection (IEC 61000-4-2, Air-Gap)
- +/- 8kV ESD Protection (IEC 61000-4-2, Contact)
- 1/8 Unit Load in RS-485 Mode (Max. 256 Transceivers on the Communication Bus)
- Advanced Failsafe Feature (RS-485/422 mode)
- Diagnostic Loop Back Function
- Driver Short-Circuit Protection Thermal Shutdown Overload Protection

### Target Applications
- Factory Automation Equipment
- Security Networks
- Industrial/Process Control Networks
- Point-of-Sales Equipment
- Gaming Machines
- Serial Protocol Translators (ex. RS-232 to RS-485/422)
- Embedded Industrial PC's
- Building Environmental Control Systems (ex. HVAC)
- Cable Repeaters / Port Extenders/ Hubs

### Sales Message:
SP336 is an ultra-versatile 3.3V / 5V single chip RS-232/RS-485/RS-422 serial transceiver. In addition to 5 serial protocol modes, it provides enhanced features like best-in-class ESD protection, slew rate control, and advanced failsafe. SP336’s high level of integration and rich features will significantly reduce component count and streamline serial port designs in industrial applications.

### Competition:
Linear Technology: LTC1321, LTC1322, LTC1335, Maxim: MAX3160-3162, Intersil: ISL3332, ISL3333

### Suggested 1000pc Resale
$5.53

### Part Numbers/Packages:
- SP336ECY-L (TSSOP-28)
- SP336EYE-L (TSSOP-28)
- SP336ECT-L (WSOIC-28)
- SP336EET-L (WSOIC-28)

### Lead Time:
6-8 weeks

### Evaluation Board:
SP336EYE-0A-EB

### Technical Support
E-mail all technical inquiries to uarttechsupport@exar.com