

DATA SHEET

ZXY500™ CONTROLLERS

The ZXY500™ range of multi-touch controllers are based around a proprietary Zytronic ASIC (Application Specific Integrated Circuit) and feature class leading ‘noise’ (EMI) immunity, sophisticated ‘palm’ rejection capability, millisecond quick touch response and supports narrow border touch sensor designs. Controller capable of driving a range of copper wire, metal mesh and ITO PCAP touch sensors providing a unique and fully flexible solution.

BENEFITS

- Powered via USB comms cable
- Configurable up to 100 touches
- Millisecond fast, low latency touch response
- Adjustable ‘palm’ rejection firmware settings
- Plug-and-play support for multi-touch operating systems
- On-board calibration storage and simple firmware upgrading
- Operates with gloved fingers and on-screen rainwater
- Variety of in-built communication modes - USB, Serial, I2C, SPI
- Chipset and reference design guidelines available by agreement
- Hover Touch, pressure sensing, object recognition and ZyBrid®^{VK} firmware options available
- Industry leading electrode drive voltage variable up to 40V for superior noise rejection and SNR.
- One controller fits all with capability to drive copper wire, metal mesh and ITO PCAP sensors

FEATURES

- Supports Zytronic touch sensor sizes 5" to ~100"
- Controller powered direct from USB VBUS 5V D.C. (tolerance 4.75V to 5.25V) with on-board “charge pump” up to 40V for sensor transmit electrodes, to improve Signal-to-Noise Ratio (SNR) performance
- Power consumption:
ZXY500-U-OFF-64-A <150mA
ZXY500-U-OFF-128-A <200mA
ZXY500-U-OFF-256-A <250mA
- Touch point reporting rate ~1ms at touch controller output, 8ms to 12ms at host over USB
- Accuracy down to <1mm of touched position
- Will detect multi-touch through ~12mm glass
- Touch sensor flexible tails available in 120 and 210mm lengths

OPERATING SYSTEMS AND SOFTWARE SUPPORT TOOLS

- Fully HID compliant “plug-and-play” under Windows, Linux and Android
- Controller output protocol available on request for custom interface applications
- Auto setup via associated ZyConfig™ tools for easy and optimum production line, or on-site configuration
- Custom calibration options available via ZyConfig™ tool to allow configurable touch active areas on the sensor

ENVIRONMENT

Operating temperature	-35°C to +70°C
Humidity	RH 0-90% up to 40°C
Storage temperature	-40°C to 80°C
Storage humidity	RH 0-90% up to 40°C
Resistance to contamination	Sensing media protected by glass, exceeds requirements of ASTM-F1598-96
Water resistance	Unaffected by water droplets or condensation

APPROVALS

- CE EN55032 Class B and EN55035 with Conducted Susceptibility EN61000-4-6 up to 10V/m
- FCC class B
- RoHS compliant and UL approval
- ESD EN61000-4-2 up to ±27kV Air Discharge and ±10kV Contact Discharge when integrated within a compliant enclosure

