

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.

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
- Pressure sensing, object recognition and ZyBrid®^{VK} firmware options available

FEATURES

- Supports Zytronic touch sensor sizes 5" to ~90"
- 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

- RoHS Compliant
- CE EN55032 Class B and EN55024 with Conducted Susceptibility EN61000-4-6 up to 10V/m
- UL approved
- ESD EN61000-4-2 up to ±27kV Air Discharge and ±10kV Contact Discharge when integrated within a compliant enclosure
- FCC Class B

