

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number: CYAT827AZA59-3200A
Manufacturer: Infineon Technologies
Package: 100-LQFP
Availability: Please confirm with sales

Product Page:

<https://antrexco.com/product/details/infineon-technologies/cyat827aza59-3200a.html>

Request a Quote:

[Submit RFQ for this part](#)



Scan for product page

Contact Information

Email: info@antrexco.com

WhatsApp: +86-186-8066-5326

Website: <https://antrexco.com>

Quality & Trust

New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

PSoC™ Automotive Multitouch Generation 7XL Hybrid In-cell

Datasheet Summary

Note that this is s Summary Datasheet. To access the full version of this datasheet, register in [My Infineon Collaboration Platform \(MyICP\)](#).

Features

- Automotive Electronics Council (AEC) AEC-Q100 qualified
- In-cell touchscreen controller
- Multi-touch capacitive touchscreen controller
 - 32-bit Arm® Cortex® CPU
 - Register-configurable
 - Noise-suppression technologies for display and EMI
 - AutoArmor improves both electromagnetic emissions and immunity
 - Effective 20-V drive for higher signal-to-noise ratio (SNR)
 - Water rejection
 - Multitouch glove with automatic mode switching
 - Ten fingers with thin glove (≤1-mm thick)
 - Fingernail tracking
 - Large object rejection
 - Automatic baseline tracking to environmental changes
 - Field upgrades via bootloader
 - Manufacturing test kit (MTK)
 - Touchscreen sensor self-test
 - Android driver support
- System performance (configuration dependent)
 - Screen sizes up to 20-inch diagonal
 - 5.3-mm electrode pitch; 16:10 aspect ratio
 - Up to 64 RX channels, 2176 intersections; 16:10 aspect ratio
 - Reports up to ten fingers
 - Small finger support down to 5 mm
 - Refresh rate up to 250 Hz; other rates configurable
 - Integrated DSP to process and filter data for faster scanning and lower noise
 - 64 RX channels, each with its own ADC, to enable single pass long-side scanning for faster processing of touch data and better noise filtering
- Power (configuration-dependent)
 - 1.71 to 1.95 V and 3.0 to 5.5 V logic and digital I/Os supply
 - 3.0 to 5.5 V analog supply
 - 30-mW average power
- Sensor and system design (configuration-dependent)
 - Supports In-cell sensors
 - TX/VCOM share the same layer
 - RX ITO layer on/above the color filter
- Primary host communication interface
 - I²C slave at 100 and 400 kbps

Features

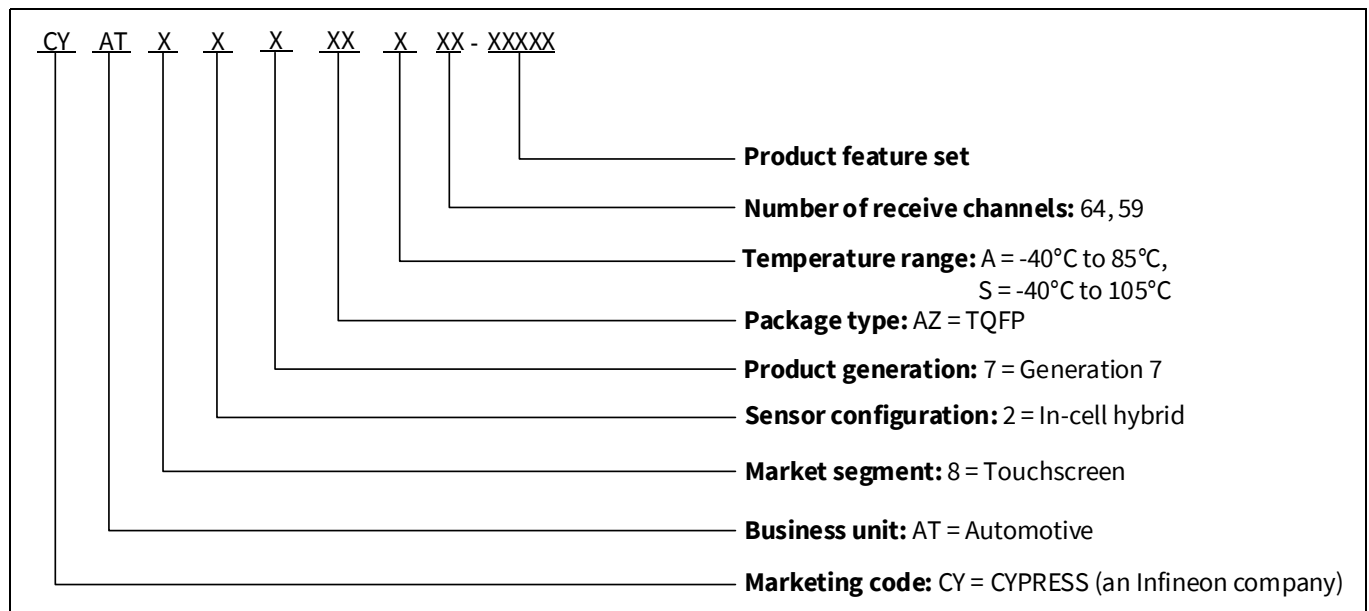
- Package
 - 100-pin TQFP 14 × 14 × 1.4 mm (0.5-mm pitch)
- Ambient temperature range
 - Automotive-A: -40°C to 85°C
 - Automotive-S: -40°C to 105°C

1 Ordering information

Table 1 Ordering information^[1]

MPN	Number of receive channels	100 -TQFP	Rotary knob	Multi-touch	Gesture touch-screen	H2O	Package
CYAT827AZA59-22002	59	✓		✓		✓	100-TQFP
CYAT827AZS59-22002	59	✓		✓		✓	100-TQFP
CYAT827AZA59-2200A	59	✓		✓	✓	✓	100-TQFP
CYAT827AZS59-2200A	59	✓		✓	✓	✓	100-TQFP
CYAT827AZA64-22002	64	✓		✓		✓	100-TQFP
CYAT827AZS64-22002	64	✓		✓		✓	100-TQFP
CYAT827AZA64-2200A	64	✓		✓	✓	✓	100-TQFP
CYAT827AZS64-2200A	64	✓		✓	✓	✓	100-TQFP
CYAT827AZA59-3200A	59	✓	✓	✓	✓	✓	100-TQFP
CYAT827AZS59-3200A	59	✓	✓	✓	✓	✓	100-TQFP
CYAT827AZA64-3200A	64	✓	✓	✓	✓	✓	100-TQFP
CYAT827AZS64-3200A	64	✓	✓	✓	✓	✓	100-TQFP

1.1 Ordering code definitions



Notes

1. All devices have the following base features: Water rejection, DisplayArmor, AutoArmor, DualSense, CAPSENSE™ buttons, large object detection and rejection, grip suppression, and thin/thick glove support.

Revision history

Revision history

Document revision	Date	Description of changes
**	2022-07-26	Initial release.

Trademarks

All referenced product or service names and trademarks are the property of their respective owners.

Edition 2022-07-26
Published by
Infineon Technologies AG
81726 Munich, Germany

© 2022 Infineon Technologies AG.
All Rights Reserved.

Do you have a question about this document?

Go to www.infineon.com/support

Document reference
002-35955 Rev. **

IMPORTANT NOTICE

The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics ("Beschaffenhheitsgarantie").

With respect to any examples, hints or any typical values stated herein and/or any information regarding the application of the product, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

In addition, any information given in this document is subject to customer's compliance with its obligations stated in this document and any applicable legal requirements, norms and standards concerning customer's products and any use of the product of Infineon Technologies in customer's applications.

The data contained in this document is exclusively intended for technically trained staff. It is the responsibility of customer's technical departments to evaluate the suitability of the product for the intended application and the completeness of the product information given in this document with respect to such application.

For further information on the product, technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies office (www.infineon.com).

WARNINGS

Due to technical requirements products may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by Infineon Technologies in a written document signed by authorized representatives of Infineon Technologies, Infineon Technologies' products may not be used in any applications where a failure of the product or any consequences of the use thereof can reasonably be expected to result in personal injury.