

# PRODUCT QUALIFICATION

## REPORT

### TITLE:

Addition of UTAC Thailand (UT4) as an Alternate Final Test Site for AD242X Device

**REPORT NUMBER:** 24\_0280

**REVISION:** 

Α

**DATE:** December 12, 2024

#### **PROJECT BACKGROUND**

The UT1 issued a PCN to ADI informing them that they are ceasing Final Test operations and consolidating all Final Tests to UT4.

#### SUMMARY

The Automotive Audio Bus provides a multichannel, I 2 S/TDM link over distances of up to 15 m between nodes. It embeds bidirectional synchronous pulse-code modulation (PCM) data (for example, digital audio), clock, and synchronization signals onto a single unshielded twisted pair (UTP) differential cable. A2 B supports a direct point-to-point connection and allows multiple, daisy-chained nodes at different locations to contribute and consume time division multiplexed channel content. This device is tested in USG (Singapore) using the 93K16 platform.

The AD242X will be tested using the same test platform in UT4 as an additional test site.

This report documents the successful completion of the product test transfer requirements for the release of testing of AD242X and other derivatives in UT1.

### **TEST AND PRODUCT INFORMATION**

Device:	AD2428, AD2426W, AD2427W, AD2428W
Package:	32-LFCSP-5X5X0.75
Leads:	32
Tester:	93K16
Handler:	HT1028C HON TECH

### **Description and Test Results** (Taken from the New Proposed Product Transfer Correlation Qualification Criteria)

Table 1 describes the qualification tests conducted and the corresponding test results for AD2428. All units have been subjected to electrical tests on both the sending and receiving sites on the same test platform. Any device that does not meet the electrical qualification requirements, without further analysis and data to prove passing, will be considered a failure.

### Table 1. Test Product Transfer Qualification Criteria

Generic	Package	Lot number	Lot Size	Sending Site	Receiving Site	% Mean Shift Criteria =< 5	Sigma Spread Criteria =< 1.3
AD2428	LFCSP	KGU	100	UT1	UT4	PASSED	PASSED

The AD2428 was qualified by running a qualification lot of 100 units at both UT1 and UT4. Data from the two sites was analyzed, as summarized in Table 1. A passing result was recorded if the yield from the receiving site met or exceeded the yield from the sending site, as summarized in Table 2. Succeeding lots with increased quantity will be closely monitored once the device has begun a production run at STA.

### Table 2. Test Product Transfer Qualification Lot Run

Generic	Package	Lot number	Lot Size	Test Site	Results
AD2428	32-LFCSP-5X5X0.75	KGU	100	USG	PASSED

Table 3 shows that rejected units on both UT1 and UT4 failed on the same test parameters.

Table 3: Test Product Reject Verification Criteria

GENERIC	Package	Lot number	Lot Size (units)	Reject units failed on the same test parameter for both UT1 and UT4?
AD2428	32-LFCSP- 5X5X0.75	KGU	5	YES

### Approvals

TRB-68768 Technical Review Board

### Additional Information

Homepage: <u>http://www.analog.com</u> Datasheet: <u>AD2426/AD2427/AD2428 (Rev. F)</u> Customer Service: <u>http://www.analog.com/en/content/technical\_support\_page/fca.html</u>