Product Qualification Report

CYPD3178-24LQXQ

USB-PD

Description

This product qualification report describes the characteristics of the product with respect to quality and reliability.

The qualification sample selection was done on production lots which were manufactured and tested on standard production processes and meet the defined requirements.

The qualification test results of those products as outlined in this document are based on **JEDEC** for target applications and may reference existing qualification results of similar products. Such referencing is justified by the structural similarity of the products.

Qualification Assessment

Fully qualified according to **JEDEC** for **Industrial Applications** and assessed as PASS

For further information about comparable products, please contact the nearest Infineon Technologies office (www.infineon.com).

CYPD3178-24LQXQ **qualified in 2018**
PG-VQFN-24
MSL: 3; 260°C

Electrical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Biased Highly Accelerated Stress Test JESD22-A110	HAST*	Ta = 130°C RH = 85%	96 h	2 x 30	0 / 60	PASS
High Temperature Operating Life JESD22-A108	HTOL	Ta = 150°C	500 h	3 x 77	0 / 231	PASS
ESD (HBM) JS-001	HBM	Class 2 (2000 V to < 4000 V)	-	-	-	PASS
ESD (CDM) JS-002	CDM	Class C2a (500 V to < 750 V)	-	-	-	PASS

Environmental Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Pre-conditioning J-STD-020 / JESD22-A113	PC	MSL and 3 x reflow		3 x 184	0 / 552	PASS
Temperature Cycling JESD22-A104	TC*	-65°C to +150°C	500 cyc	3 x 77	0 / 231	PASS
Pressure Cooker Test JESD22-A102	PCT*	Ta = 121°C RH = 100%	168 h	2 x 77	0 / 154	PASS
High Temperature Storage Life JESD22-A103	HTSL*	Ta = 150°C	1000 h	1 x 45	0 / 45	PASS

Notes:
* For SMD devices reliability stress tests performed after preconditioning test (PC) according to JESD22

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