

Product Qualification Report

BGC100GN6

Switchable Wideband Directional Coupler IC

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).

BGC100GN6
Package: PG-TSNP-6
MSL: 1

qualified since 2017

Electrical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/ss	Fail/Qty	Result
Electrical Distribution	ED	-40°C, +25°C, +85°C		3 x 10	0 / 30	PASS
High Temperature Operating Live JESD22 A101	HTOL	Tj=150°C Vdd=Vddmax	1000 h	3 x 77	0 / 231	PASS
High Temperature Storage JESD22 A103	HTSL	Ta=150°C	1000 h	3 x 45	0 / 135	PASS
Early Life Failure Rate Study	ELFR	Tj=150°C Vdd=Vddmax	48 h	3 x 1000	0 / 3000	PASS
ESD HBM JESD22-A114B / JS-001	HBM	HBM 1C 1000V to < 2000V		1 x 3	0 / 3	PASS
ESD CDM JESD22-C101 / JS-002	CDM	CDM C3 ≥ 1000V		1 x 3	0 / 3	PASS

Environmental Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Preconditioning J-STD020 / JESD22 A113	PC	Soak acc.MSL1, 3x reflow, 260°C		3 x 50	0 / 150	PASS
Temperature Cycling JESD22 A104	TC	-55°C to +150°C	1000 cyc	3 x 25	0 / 75	PASS
HAST JESD22 A101	HAST	Ta=130°C, RH=85% Vdd=Vddmax	96 h	3 x 25	0 / 75	PASS
uHAST JESD22-A118	uHAST	Ta=130°C, RH=85%	96h	3 x 25	0 / 75	PASS

Mechanical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Physical Dimensions JESD B-100	PD			1 x 30	0 / 30	PASS
Solderability J-STD-002	SD			3 x 22	0 / 66	PASS

Notes:

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Document reference

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