HT MICRON
semicondutores

NB-IoT Functional and Performance Report

3GPP and Qualcomm Based Tests

Classification: Confidential

Doc. Type: Report

Revision: Rev. 02

Date: 10/21/2024

Code: Tests, Report, Performance

Report Info

Operator:	admin
DUT:	HTNB32L-0XX
Batch:	NB2PT07-06-000-RETEST
Testplan:	['Yield_Platform_for_Production_1.0_PCB2.ini']
Plat SW Ver.:	Yield-Alpha 0.1
Plat HW Ver.:	1.0 ID1

Summary

Test Start Time:	10/21/2024 17:19:36
Test End Time:	10/21/2024 17:22:07
Total Test Time:	0:02:31
Test Items Passed:	56
Test Items Failed:	3
Number of Test Items:	59

Tests Resume

Test item	Qty	Set Lower	Set Upper	Res Lower	Res Mean	Res Upper	Unit	Judg
Short Open	13	8	340	10.4	213.9	330.0	kΩ	PASS
Firmware Flash	5	-	-	-	-	-	-	PASS
Interleaved	22	-	-	-	-	-	-	PASS
Peripherals	11	-	-	-	-	-	-	PASS
DeepSleep	4	0.4	25.0	0.9	6.1	13.9	µA	PASS
Calibration	4	-	-	-	-	-	-	FAIL

Tests Details #01

Test HT criteria - ShortOpen in Default configuration

Pin Name	Lower	Upper	Result	Unit	Judgement
VCC	8	340	10.4	kΩ	PASS
NRST	8	340	330.0	kΩ	PASS
BOOT	8	340	330.0	kΩ	PASS
UART1_TX	8	340	330.0	kΩ	PASS
UART1_RX	8	340	330.0	kΩ	PASS
USIM_VCC	8	340	39.2	kΩ	PASS
ESIM_VCC	8	340	57.0	kΩ	PASS
IO_1833_SEL	8	340	262.4	kΩ	PASS
USIM_IO	8	340	45.2	kΩ	PASS
ESIM_IO	8	340	330.0	kΩ	PASS
USIM_CLK	8	340	330.0	kΩ	PASS
ESIM_CLK	8	340	330.0	kΩ	PASS
SIM_NRST	8	340	56.2	kΩ	PASS

Tests Details #01

Test HT criteria - Firmware Flash in Default configuration

ID	Lower	Upper	Result	Unit	Judgement
Erase	-	-	PASS	-	PASS
Bootload	-	-	PASS	-	PASS
App Data	-	-	PASS	-	PASS
Merge RF Table 1	-	-	PASS	-	PASS
Merge RF Table 2	-	-	PASS	-	PASS

Tests Details #01

Test HT criteria - Firmware Flash in Default configuration

Tests Details #01

Test HT criteria - Interleaved in Default configuration

ID	Lower	Upper	Result	Unit	Judgement
GPIO2 [Int0]	0	-	0	-	PASS
GPIO3 [Int0]	0	-	0	-	PASS
GPIO5 [Int0]	0	-	0	-	PASS
SWD_CLK [Int0]	0	-	0	-	PASS
GPIO6 [Int0]	0	-	0	-	PASS
GPIO10 [Int0]	0	-	0	-	PASS
GPIO7 [Int0]	0	-	0	-	PASS
GPIO1 [Int0]	-	1	1	-	PASS
GPIO4 [Int0]	-	1	1	-	PASS
SWD_IO [Int0]	-	1	1	-	PASS
AON_GPIO [Int0]	-	1	1	-	PASS
GPIO2 [Int1]	-	1	1	-	PASS
GPIO3 [Int1]	-	1	1	-	PASS
GPIO5 [Int1]	-	1	1	-	PASS
SWD_CLK [Int1]	-	1	1	-	PASS
GPIO6 [Int1]	-	1	1	-	PASS
GPIO10 [Int1]	-	1	1	-	PASS
GPIO7 [Int1]	-	1	1	-	PASS
GPIO1 [Int1]	0	-	0	-	PASS
GPIO4 [Int1]	0	-	0	-	PASS
SWD_IO [Int1]	0	-	0	-	PASS
AON_GPIO [Int1]	0	-	0	-	PASS

Tests Details #01

Test HT criteria - Peripherals in Default configuration

ID	Lower	Upper	Result	Unit	Judgement
UART0 TX	-	-	PASS	-	PASS
UART0 RX	-	-	PASS	-	PASS
UART2 TX	-	-	PASS	-	PASS
UART2 RX	-	-	PASS	-	PASS
I2C0 TX	-	-	PASS	-	PASS
I2C0 RX	-	-	PASS	-	PASS
I2C1 TX	-	-	PASS	-	PASS
I2C1 RX	-	-	PASS	-	PASS
SPI1 TX	-	-	PASS	-	PASS
SPI1 RX	-	-	PASS	-	PASS
USIM	-	-	PASS	-	PASS

Tests Details #01

Tests Details #01

Test HT criteria - DeepSleep in Default configuration

Sleep Mode	Lower	Upper	Result	Unit	Judgement
HIB2	0.4	1.5	0.9	µA	PASS
HIB1	2.0	4.0	2.9	µA	PASS
SLEEP2	5.0	10.0	6.6	µA	PASS
SLEEP1	10.0	25.0	13.9	µA	PASS

Tests Details #01

Test Qualcomm criteria - Calibration in Default configuration

ID	Lower	Upper	Result	Unit	Judgement
AFC	-	-	PASS	-	PASS
AGC	-	-	FAIL	-	FAIL
APC	-	-	SKIP	-	SKIP
DPD	-	-	SKIP	-	SKIP

Tests Details #01

Test Qualcomm criteria - Calibration in Default configuration