TROPIC01

OD_TR01_catalog_list

Catalog list

Version: 0.4

Abstract

This Document lists all delivered Part Numbers of TROPIC01 and their configuration.

September 16, 2025

tropicsquare

Contents

1 Part Number **2**
1.1 Ordering details 3

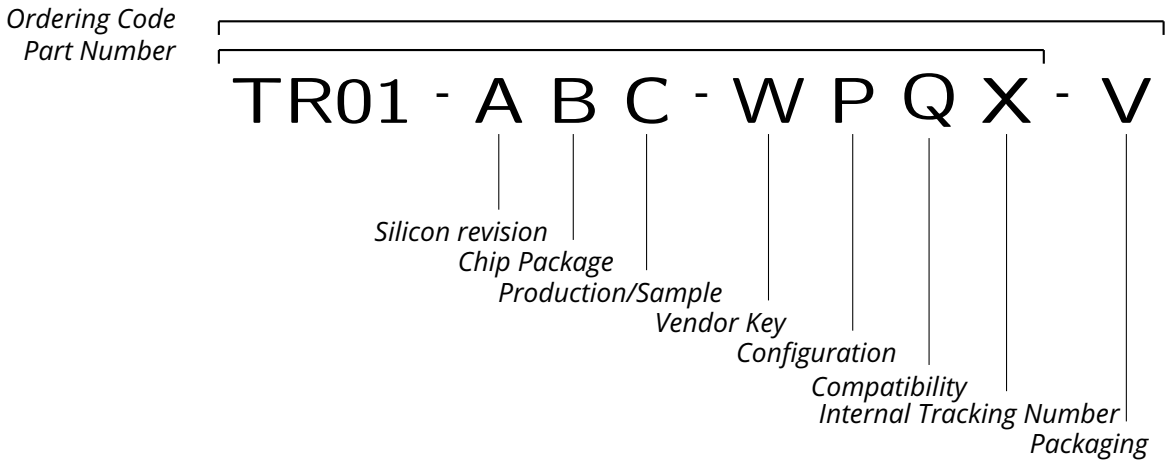
2 Available Part Numbers **4**

3 Package Marking **5**
3.1 Marking Version 1 5
3.2 Marking Version 1.5 6
3.3 Marking Version 2 7

4 Shipment Labeling **8**

5 Factory Configuration **9**
5.1 T0XX 10
5.2 T1XX 11
5.3 T2XX 12
5.4 T3XX 13

1 Part Number



Label	Description
A	**Silicon replacedevision** **A** - ABAA - Pre-production samples (Bootloader version 1.0.1) **B** - ABAB - Pre-production samples (Bootloader version 1.0.1) **C** - ACAB - Production devices (Bootloader version 2.0.1)
B	**Chip Package** **1** - No package, bare silicon die **2** - QFN32 (4x4mm, 32L T/SLP)
C	**Production/Sample** **P** - Production device **S** - Sample device
W	**Vendor Key** **T** - Tropic Square vendor key **P** - Tropic Square vendor key (legacy) **E** - Unspecified external vendor key **X** - Tropic Square development key **U** - No key or undefined key
P	**Configuration** **0** I/R Config are empty (see 5.1) **1** Sensors are enabled in I-Config (see 5.2) **2** Sensors are enabled in I-Config, MBIST is enabled (see 5.3) **3** Sensors are enabled in I-Config, MBIST is enabled, FW logging is disabled. (see 5.4)

Label	Description
Q	**Compatibility** **0** - L2/L3 API compatible with Application FW 1.0.0.
X	**Internal Tracking Number** Tropic Square Internal Tracking Number. Keep as "X" when ordering.
V	**Packaging** **A** - 13″ reel (330mm), MOQ 5000 units **B** - 7″ reel (177.8mm), MOQ 1500 units **C** - reel strip, MOQ 100 units **D** - custom reel, MOQ 500 units **T** - tray, MOQ 490 units

1.1 Ordering details

Part Number scheme above captures all differences between TROPIC01 chips delivered. The **X** digit is used for internal tracking purposes. Customers shall keep "X" as a character for these two digits when specifying order code of TROPIC01, e.g.:

TR01-C2P-T30X-A

Silicon Rev. C (ACAB) - production, QFN32, Configuration as in 5.4, Compatibility with Application FW 1.0.0, 5000 pcs reel.

TR01-B1S-T10X-T

Silicon Rev. B (ABAB)- sample, Bare die, Configuration as in 5.2, Compatibility with Application FW 1.0.0, tray.

2 Available Part Numbers

Below is a list of Part Numbers that have been released.

Part Number	Ordering Code
TR01-B2S-T005	TR01-B2S-T00X-V
TR01-C2P-T103	TR01-C2P-T10X-V
TR01-C2P-T101	TR01-C2P-T10X-V
TR01-C2P-T202	TR01-C2P-T20X-V
TR01-C2P-T301	TR01-C2P-T30X-V

Note

"V" shall be replaced to define type of chip packaging (reel, tray, etc..) as defined in 1.

Note

In addition to these Part Numbers, there exist pre-production samples that do not follow Part Number Scheme described above. Such devices are not supported.

3 Package Marking

See below sections to understand TROPIC01 package markings.

3.1 Marking Version 1

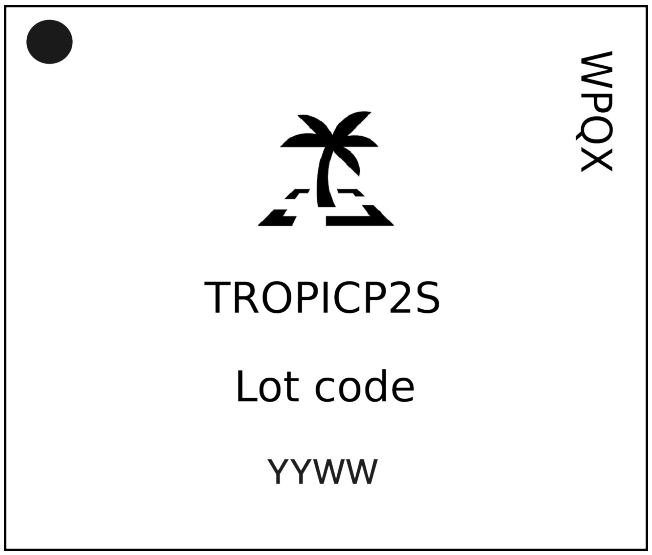


Figure 1: Package Marking Version 1

Item Name	Meaning
TROPICP2S	Product label
Lot code	Silicon manufacturer lot code
YY	Last two numbers of the year when the chip was packaged
WW	Week number within year when the chip was packaged, zero padded
W	Vendor Key indicator, see 1
P	Configuration, see 1
Q	Compatiblity, see 1
X	Internal tracking code

3.2 Marking Version 1.5

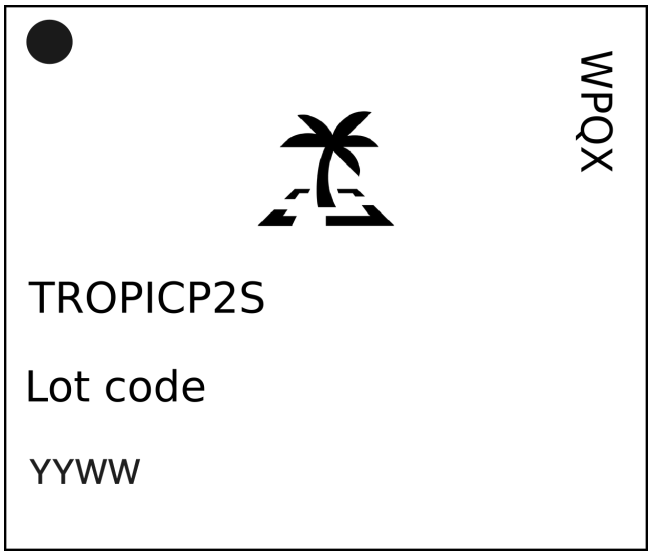


Figure 2: Package Marking Version 1.5

Item Name	Meaning
TROPICP2S	Product label
Lot code	Silicon manufacturer lot code
YY	Last two numbers of the year when the chip was packaged
WW	Week number within year when the chip was packaged, zero padded
W	Vendor Key indicator, see 1
P	Configuration, see 1
Q	Compatiblity, see 1
X	Internal tracking code

3.3 Marking Version 2

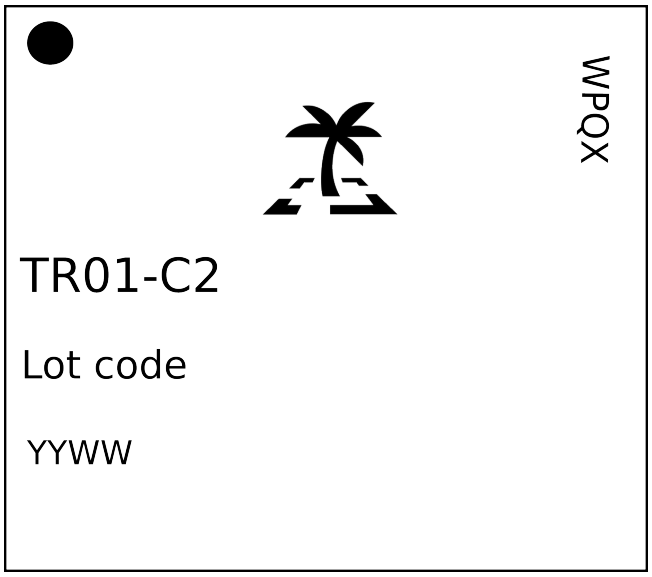


Figure 3: Package Marking Version 2

Item Name	Meaning
TR01-C2	Prefix of Part Number, see 1
Lot code	Silicon manufacturer lot code
YY	Last two numbers of the year when the chip was packaged
WW	Week number within year when the chip was packaged, zero padded
W	Vendor Key indicator, see 1
P	Configuration, see 1
Q	Compatiblity, see 1
X	Internal tracking code

4 Shipment Labeling

The shipments made by Tropic Square are labeled with the following sticker:

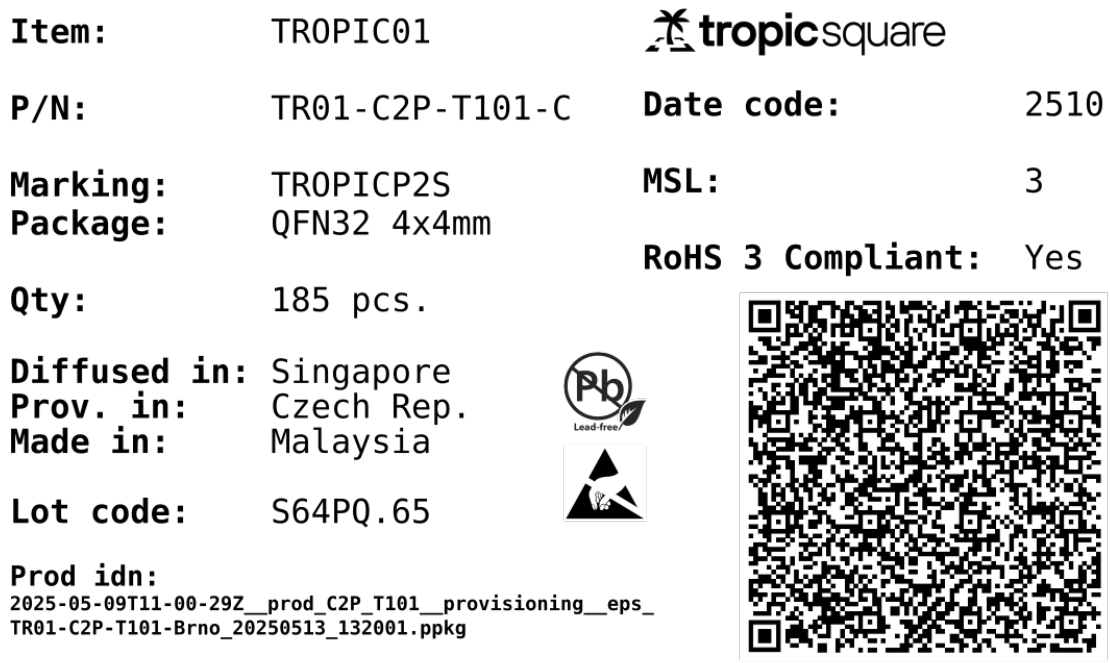


Figure 4: Package Sticker

5 Factory Configuration

This section provides the default configuration for each Part Number of TROPIC01 that Tropic Square programs to R/I-Config during manufacturing (Letter P in Part Number scheme). The table lists all CO Fields that are set to 0. The rest have the default value 1.

5.1 T0XX

R-Config	I-Config

5.2 T1XX

R-Config	I-Config
CFG_SENSORS	
– CPB_BIT_FLIP_DIS	
– CPU_ALERT_DIS	
– ECC_BIT_FLIP_DIS	
– EKDB_BIT_FLIP_DIS	
– EM_PULSE_DET_DIS	
– GLITCH_DET_DIS	
– I_MEM_BIT_FLIP_DIS	
– LASER_DET_DIS	
– OSCILLATOR_MON_DIS	
– PIN_VERIF_BIT_FLIP_DIS	
– PLATFORM_BIT_FLIP_DIS	
– PTRNG0_TEST_DIS	
– PTRNG1_TEST_DIS	
– R_MEM_BIT_FLIP_DIS	
– SCB_BIT_FLIP_DIS	
– SHIELD_DIS	
– TEMP_SENS_DIS	
– VOLTAGE_MON_DIS	

5.3 T2XX

R-Config	I-Config
CFG_SENSORS	**CFG_START_UP**
– CPB_BIT_FLIP_DIS	– MBIST_DIS
– CPU_ALERT_DIS	– RNGTEST_DIS
– ECC_BIT_FLIP_DIS	
– EKDB_BIT_FLIP_DIS	
– EM_PULSE_DET_DIS	
– GLITCH_DET_DIS	
– I_MEM_BIT_FLIP_DIS	
– LASER_DET_DIS	
– OSCILLATOR_MON_DIS	
– PIN_VERIF_BIT_FLIP_DIS	
– PLATFORM_BIT_FLIP_DIS	
– PTRNG0_TEST_DIS	
– PTRNG1_TEST_DIS	
– R_MEM_BIT_FLIP_DIS	
– SCB_BIT_FLIP_DIS	
– SHIELD_DIS	
– TEMP_SENS_DIS	
– VOLTAGE_MON_DIS	

5.4 T3XX

R-Config	I-Config
CFG_SENSORS	**CFG_DEBUG**
– CPB_BIT_FLIP_DIS	– FW_LOG_EN
– CPU_ALERT_DIS	**CFG_START_UP**
– ECC_BIT_FLIP_DIS	– MBIST_DIS
– EKDB_BIT_FLIP_DIS	– RNGTEST_DIS
– EM_PULSE_DET_DIS	
– GLITCH_DET_DIS	
– I_MEM_BIT_FLIP_DIS	
– LASER_DET_DIS	
– OSCILLATOR_MON_DIS	
– PIN_VERIF_BIT_FLIP_DIS	
– PLATFORM_BIT_FLIP_DIS	
– PTRNG0_TEST_DIS	
– PTRNG1_TEST_DIS	
– R_MEM_BIT_FLIP_DIS	
– SCB_BIT_FLIP_DIS	
– SHIELD_DIS	
– TEMP_SENS_DIS	
– VOLTAGE_MON_DIS	

Version history

Version	Date	Description
0.1	5.9.2025	Initial version
0.2	8.9.2025	Split **NUM** into C and XX. Replace X Y Z by A B C.
0.3	10.9.2025	Introduce Compatibility flag.
0.4	11.9.2025	Introduce Package Marking v1.5.

Legal Notice

Our mission is to provide you with high quality, safe, and transparent products, but to be able to do so, we also have to make the following disclaimers.

To verify the characteristics of our products, consult the repositories we make available on our GitHub. While we do our best to keep the content of these repositories updated, we cannot guarantee that the content of these repositories will always identically correspond to our products. For example, there may be delays in publication or differences in the nature of the software solutions as published and as included in the hardware products. Some parts of our products cannot be published due to third party rights.

We take pride in publishing under open-source license terms, but do not grant licenses to any of our patents. Please consult the license agreement in the repository. We reserve the right to make changes, corrections, enhancements, modifications, and improvements to our products, published solutions and terms at any time without notice.

Since we cannot predict what purposes you may use our products for, we make no warranty, representation, or guarantee, whether implied or explicit, regarding the suitability of our products for any particular purpose.

To the maximum extent permitted by applicable law, we disclaim any liability for any direct, indirect, special, incidental, consequential, punitive, or any other damages and costs including but not limited to loss of profit, revenue, savings, anticipated savings, business opportunity, data, or goodwill regardless of whether such losses are foreseeable or not, incurred by you when using our products. Further, we disclaim any liability arising out of use of our products contrary to their user manual or our terms, their use/implementation in unsuitable environments or ways, or for such use which may infringe third party rights. Notwithstanding the above, the maximum liability from the use of our products shall be limited to the amount paid by you as their purchase price.