

Mario Baudet Aranda

De: oetech@fcc.gov
Enviado el: jueves, 8 de febrero de 2024 22:33
Para: Mario Baudet Aranda
Asunto: Response to Inquiry to FCC (Tracking Number 580434)

Inquiry on 01/16/2024 :

Inquiry:

Dear FCC,

Following the requirements of the KDB 484596 D01- TEST REDUCTIONS VIA DATA REFERENCING, I am sending you this ECR KDB Inquiry on behalf of the manufacturer SALTO SYSTEM SL to get your approval for the test plan scheme followed for the certification of the product in the subject of the inquiry.

The approach adopted for the testing is the following:

- EMC Testing for W60MH (XS4 Original +)
according to 47 CFR Part 15B, ICES-003 Issue 7/ANSI C63.4-2014.

- EMC
Testing for W60MH (XS4 One S) according to 47 CFR Part 15B, ICES-003 Issue 7/ANSI C63.4-2014. This test has been used as a spot check to see that the RF performance between the XS4 Original + and XS4 One S is the same.

- EMC
Testing for W60T according to 47 CFR Part 15B, ICES-003 Issue 7/ANSI C63.4-2014.

- Partial
RF testing (radiated) for W60MH and W60T models for BLE (1Mbps) Radio, according to CFR Part 15.247, RSS-247 Issue 2.

- Full RF
testing for the worst case found in previous RF Bluetooth testing (W60T), for BLE (1Mbps) Radio, according to CFR Part 15.247, RSS-247 Issue 2.

- Partial
RF testing for NFC Radio for W60MH and W60T to get worst case configuration according to CFR Part 15.225, RSS-210 Issue 9.

- Full RF
testing for NFC Radio for the worst case found in previous RF NFC testing (W60T), according to CFR Part 15.225, RSS-210 Issue 9.

- Radiated
Spurious Simultaneous Transmission Verification for W60T according to 47 CFR Part 2.947 (f) for the following operation modes: NFC worst case + Bluetooth (Soc) worst case + Bluetooth (Module) worst case.

The spot-check test plan is:

For Bluetooth

- Perform Emissions limitations radiated (transmitter)for the model W60MH

- Perform Emissions limitations radiated (transmitter)for the model W60T

Detect the worst case to perform RF full testing which is, in this case, the model W60T.

For RFID

- Perform

Field strength of emissions within the band 13.553 -13.567 MHz, 13.410 - 13.553 MHz and 13.567 - 13.710 MHz, 13.110 -13.410 MHz and 13.710 - 14.010 MHz and Field Strength of Emissions outside of the band 13.110 MHz - 14.010 MHz for the model W60MH

- Perform

Field strength of emissions within the band 13.553 -13.567 MHz, 13.410 - 13.553 MHz and 13.567 - 13.710 MHz, 13.110 -13.410 MHz and 13.710 - 14.010 MHz and Field Strength of Emissions outside of the band 13.110 MHz - 14.010 MHz for the model W60T

Detect the worst case to perform RF full testing which is, in this case, the model W60T.

With along this inquiry you can find the following documents:

- W60MH & W60T - Family cover letter.pdf
where is explained the similarities and differences between the models and the testing plan

- External and internal photographs.

Best regards

FCC response on 01/19/2024

This ECR is difficult to follow. Please follow outline as identified in section 5 of KDB publication 484596 D01 Referencing Test Data. In particular:

- Introduction, the reviewer needs to understand what is this device, applicable rule parts and functional differences between reference and variant device.
- Justification: Component and operational differences, clearly explaining why the variant qualifies for data referencing, and specifically for which rule part/test method.
- Illustrations: Annotated Side-by-side photos/illustrations with easy to follow explanations.
- Spot Check test plans: Preferably in tabular format for each applicable rule part, clearly identifying all applicable tests and whether they will be referenced with spot checks or performed in full. All spot check tests must include acceptance criteria.

Thank you.

---Reply from Customer on 01/22/2024---

Dear Mr/Mrs,

thank you for your reply.

May i send you the inquiry with a structure according with the KDB.

Introduction

We are asking the approval of two model names under the same FCC ID, W60MH and W60T. These devices have the following radio technology: Bluetooth LE and RFID 13.56 Mhz, thus the applicable rule parts are: FCC 15.247 and FCC 15.225.

The difference between the two model names are. The model W60MH has 3 circuits and the model W60T has five circuits. Control circuit, motor circuit and battery connection circuit are common for all the models. The BLE Broker Module circuit and the priva + door circuit are only for the electronic model W60T. The BLE Broker Module circuit contains an already FCC/ISED certified module (FCC ID: TCZ-10105567G1 / IC: 1175F-10105567G1).

Justification

As per is written in the instroduction, the difference between the two models is that one of the models include two PCBs more, so the second model name is a depopulation.

Radiated emissions has been performed over both models to discover the worst case. The results of this testing conclude the model W60T is the worst case.

Full test report have been done over the W60T and data referencing is used for the model W60MH.

Illustrations

Internal and external photos have been upload attached to this inquiry with easy to follow explanations.

Spot check test plans

Rule Part

Test item

Data Reference

FCC 15.247 (a)

6 dB Bandwidth

Yes, this test case has not been performed on the device W60MH. Data reference from the device W60T

FCC 15.247 (b)

Maximum output power and antenna gain

Yes, this test case has not been performed on the device W60MH. Data reference from the device W60T

FCC 15.247 (c)

Band-edge emissions compliance (Transmitter)

Yes, this test case has not been performed on the device W60MH. Data reference from the device W60T

FCC 15.247 (d)

Power spectral density

Yes, this test case has not been performed on the device W60MH. Data reference from the device W60T

FCC 15.247 (e)

Emission limitations radiated (Transmitter)

No, this test case has been performed on the device W60MH and W60T.

FCC 15.225 (a)

Field strength of emissions within the band 13.553 MHz -13.567 MHz

No, this test case has been performed on the device W60MH and W60T.

FCC 15.225 (b)

Field strength of emissions within the band 13.410 - 13.553 MHz and 13.567 – 13.710 MHz

No, this test case has been performed on the device W60MH and W60T.

FCC 15.225 (c)

Field strength of emissions within the band 13.110 - 13.410 MHz and 13.710 – 14.010 MHz

No, this test case has been performed on the device W60MH and W60T.

FCC 15.225 (d)

Field strength of emissions outside of the band 13.110 MHz -14.010 MHz

No, this test case has been performed on the device W60MH and W60T.

FCC 15.225 (e)

Frequency tolerance of the carrier signal

Yes, this test case has not been performed on the device W60MH. Data reference from the device W60T

i hope the testing approach will be easier to understand now.

do not hesitate to contact me if you have any question.

best regards

FCC response on 01/25/2024

Per previous response, spot test plans should list each test/rule part, (do not skip any) clearly identifying all applicable tests and whether they will be referenced with spot checks or tested in full. All spot check tests must include acceptance criteria. Please use tabular format to facilitate review. Illustrations need to be side-by-side and annotated for the differences.

Thank you

---Reply from Customer on 02/07/2024---

Dear Mr/Mrs.

thank you for your comments.

I am attaching you two documents,

- Cross Reference Table_W60MH_W60T_inquiry.pdf -> In this document you can see all the applicable testplan with the rule parts identifying if we are referencing data or not. The document finishes with the acceptance criteria per each rule part.

- sidebyside illustrations.pdf -> you can check the difference between the variants.

i hope these documents resolve your questions

I look forward to your reply

best regards

FCC response on 02/08/2024

ECR is approved.

Thank you

Attachment Details:

Do not reply to this message. Please select the [Reply to an Inquiry Response](#) link from the OET Inquiry System to add any additional information pertaining to this inquiry.