

To: Roland Gubisch ES-Box; David Legge ES-Lhd
Cc: Danielle Fontaine ES-Box
Subject: RE: Saitek FCC ID: QIWPS30-1 (Joystick)
(Dongle) status

David,

Review of these applications is complete and the following points are noted:

ADMINISTRATIVE

1) photos of populated PCBs reference -04002, -06002 and -08002 cannot be found; in addition, trace side of populated PCB reference -07001 is not found. Please provide.

TECHNICAL

1) The operating frequency range of the EUT is not clear. It was tested at 2407 and 2450 MHz. The test report indicates that any channel in the range 2402 - 2479 MHz may be selected. Please be aware that Part 15 requires intentional radiators to be tested at low, middle and high channels if the operating frequency range is greater than 10 MHz [see 15.31(m)].
2) The plot of spurious emissions in the restricted range 2483.5-2500 MHz band shows an RBW of 100 kHz. The written description of the test in section 3.1.3 mentions a 1 MHz RBW. Please explain.

FOR YOUR INFORMATION (no reply required)

The Dongle (QIWPS30-2) is a composite device - transmitter and PC peripheral. The peripheral must be approved by either certification or Declaration of Conformity (DoC). Please refer to the recent FCC Public Notice attached. As the Dongle label already incorporates the correct DoC marking (FCC logo), DoC is acceptable. The Responsible Party must have on file a test report showing compliance of a fully-populated PC per ANSI C63.4, with the Dongle installed but not transmitting. DoC does not require any filing with the FCC.

Thank you,
Roland Gubisch

-----Original Message-----

From: Roland Gubisch ES-Box
Sent: Thursday, October 21, 2004 5:16 PM
To: David Legge ES-Lhd
Cc: Danielle Fontaine ES-Box
Subject: RE: Saitek FCC ID: QIWPS30-1 (Joystick) and FCC ID: QIWPS30-2
(Dongle) status

David,

Thank you for your rapid response. The files arrived just before my extended absence from the office, and it is possible that I have not located all of them. Your forbearance is appreciated.

ADMIN

1) Please re-send by e-mail any setup photos.

TECHNICAL

1) Form 731

a) If the device operates on discrete channels, the center of the highest and lowest channel should be listed. It is not clear from the test report whether the device operates on one or more channels.

b) Please change the summary page, to eliminate any possible misinterpretation.

2) Test report

a)-c) Thank you.

d) Emission limits in 15.205 restricted bands are given in 15.209; these are also known as the "general limits." In the band 2.4835-2.5 GHz the limit is 500 uV/m at 3m, or 54 dBuV/m.

Regards,
Roland

-----Original Message-----

From: David Legge ES-Lhd

Sent: Thursday, October 21, 2004 11:35 AM

To: Roland Gubisch ES-Box

Subject: RE: Saitek FCC ID: QIWPS30-1 (Joystick) and FCC ID: QIWPS30-2 (Dongle) status

Roland

Thank you for your comments:

ADMIN:-

1) We posted the documents you are enquiring about at the same time as we E Mailed the reports

And the photographs to you. We are trying to get other copies for forwarding to you.

Are the set up photographs not clear enough?

Will send photos showing ident label positions.

Technical:- Form 731

a) The customer has put in the permitted sub band range rather than the product specific range.

b) The summary page was presented this way for the last report, I can change it if you want

Test Report:-

a) As b above, will change to Field Strength

b) All radiataed emissions test were carried out in the far field.

c) Will include sample calculation

d) Cannot find the restricted band above the upper edge mentioned in 15.249, what are the limits?

Dave

-----Original Message-----

From: Roland Gubisch ES-Box

Sent: 20 October 2004 18:34
To: David Legge ES-Lhd
Cc: Danielle Fontaine ES-Box
Subject: Saitek FCC ID: QIWPS30-1 (Joystick)

David,

Review of these applications is complete and the following issues need to be addressed for both Joystick and Dongle applications:

ADMINISTRATIVE

1. A number of required exhibits are missing or cannot be found. Please indicate the location of these, or provide:

- a. user manual, with required FCC information per 15.105 (may be a draft);
- b. simple block diagrams per 2.1033(b)(5), showing signal path(s) and frequencies of all oscillators;
- c. schematic diagram, showing component values; if values are not shown on diagram, a separate parts list should be furnished;
- d. test setup photos per 2.1033(b)(6), showing separately the worst-case configurations for radiated and line-conducted emissions. These photos should show location of EUT on turntable, any cabling, and location(s) of LISN/AMN.
- e. label photos or drawings showing FCC ID: and label wording per 15.19(a)(3);
- f. drawings or photos showing intended locations of labels.

2. If confidentiality is desired for proprietary exhibits such as a detailed block diagram or schematic, please provide a separate letter on client letterhead requesting confidentiality (either short-term or long-term or both), per the attached pro forma letter. Please note that some exhibits cannot be held confidential.

TECHNICAL

1. Form 731

- a. the frequency range which appears on the form and on the Grant of Authorization is specified from the center of the lowest operating frequency band to the center of the highest band. On that basis, it appears that the frequency range should be 2407 MHz - 2407 MHz for both Joystick and Dongle. Please comment.
- b. The Equipment Code DXT is correct for compliance with 15.249 rules, but 15.247 is listed in the test report (page two). Please comment.

2. Test report

- a. The fundamental emission limit for 15.249 is given as field strength, but the summary table on page two lists EIRP; please correct.
- b. Please confirm that radiated emission measurements were not performed in the near field;
- c. Please provide a sample calculation showing conversion of measurements to technical requirements, per 2.1033(b)(6).
- d. Evidence of compliance with out-of-band emissions generally includes plots spanning the band edges at 2.4 and 2.4835 GHz. In the case of the upper edge, a restricted band exists from 2.4835 GHz to 2.5 GHz. Please indicate how band edge compliance was determined.

Certification can proceed as soon as these issues are addressed.

Thank you,
Roland

-----Original Message-----

From: Roland Gubisch ES-Box
Sent: Tuesday, October 19, 2004 5:41 PM
To: David Legge ES-Lhd
Cc: Danielle Fontaine ES-Box
Subject: Saitek FCC ID: QIWPS30-1 and FCC ID: QIWPS30-2 status

David,

The applications are in review, any comments/questions will be forthcoming in the next day or two, and I would hope to have certification by the end of the week.

Regards,
Roland