

FCC ID: XNL-ORTHOSNSR3

CT Project: TCB-p1310015

From: Chris Harvey

Date: 5/2/2013

1. The Confidentiality Request Letter has the FCC ID number and model of the previous approval for the OrthoSensor Knee Balancer. Please update the Confidentiality Request Letter for this application.

[CT – Updated letter is attached.](#)

2. The RF Test Report is written for a model: 07359\_C Transceiver, but does not reference the FCC ID number of this application. The model number is not evident on the label or the manual. Please update the Test Report to include the FCC ID number (for all applications).

[CT – The FCC ID has been added to all the test reports.](#)

3. The internal photos show a partial FCC ID number of what could be a Bluetooth module (Grantee Code T9J). Does this device also contain another transmitter? What is the full FCC ID of this embedded device (seems to be U3, RN-41 in the schematic), and is a modular approval being used (will impact the labeling of this device and possibly RF Exposure).

[CT – The referenced component is a Bluetooth module but it remains permanently inactive in the product. In fact, the module will not be populated on future PCBAs](#)

4. The manual has no operational information about this EUT, but rather seems to concentrate on the knee balancer and shim installation. How is this LinkStation device operated? Are the antennas located and used near the body or do they remain tethered by the short USB cable at the desktop computer? The manual makes reference to the LinkStation Operation User Guide, which is likely to be the correct manual for this application. Please provide that exhibit for the detailed use information about this device.

[CT – LS Op User Guide is attached](#)

5. The RF power of this device seems very low, but an RF Exposure compliance exhibit should still be submitted for this device. Is this device only used in a Mobile RF Exposure condition?

[CT – An RF exposure test report has been provided](#)

6. The Operational Description indicates that this device operates from 400.105 MHz to 406.000 MHz, but the RF test report only documents compliance at 404.3 MHz. If this device is capable of operating across the wider band, please provide additional compliance data. If this device is only capable of operating at the single 404.3MHz frequency, please update the Operational Description exhibit.

[CT – Transceiver is capable of operating on discrete channels across the band indicated. The test report has been updated to include this additional data. These channels will be used for additional capabilities to be determined in the future.](#)



7. The Emission BW is documented as 185 kHz, but the RF Peak Power measurement was performed using only a 30 kHz RBW, which would seem to bandwidth limit the power measurement. Please either justify the measurement or provide a corrected power measurement.

CT – There are two elements to consider with this measurement.

1-This is near the noise limitation of the measurement devices and if wider resolution bandwidths are utilized, for example 300 KHz would increase the system white Gaussian noise by 20 dB, rendering measurements impossible.

2 – An observation of the signal shows that the emission peaks are significantly narrower than 30 kHz therefore the elements of the signal producing the most power are not suppressed.

8. The test report does not document the Spectrum Analyzer settings for the Radiated Spurious Emissions measurement.

CT – The information was inadvertently left out of the report and has been added in the appropriate test section.

9. The Schematic diagram seems to show 2 identical transmit chains. Does this device have 2 transmit chains, or, as seems to be shown in the Block Diagram, are there one Transmit and one Receive path (Operational Description states Transmit Channel and Receive Channel)?

CT - There are two identical, bi-directional telemetry circuits. Both are in Receive mode the vast majority of time (spatial diversity) and upon a command from the computer, will turn off and only one circuit will transmit.

Response by: John Erhard

Submitted by: Amanda Reed

Date: 6/26/13