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TIMCO ENGINEERING INC.

P.O. Box 370 849 N.W. State Road 45 Newberry, Florida USA 32669

Subject: Class II Permissive Change Authorization Application under FCC Part 15,

Subpart C, Section 15.249, Low Power Transmitters Operating in the Frequency

Band 2400-2483.5 MHz.

Applicant: Northern Digital Inc.

Product: Polaris
Model: Spectra
FCC ID: TJ8-VICRA

Dear Sir/Madam,

As appointed agent for **Northern Digital Inc.**, we would like to submit this application for FCC Certification of the above product. Please review all necessary files uploaded to TIMCO Upload site.

Differences between the Family Models Vicra and Spectra:

The actual antenna is the same for the Vicra and Spectra position sensors. It's the GigaAnt 3030A5645-01. It is simply mounted on a different printed circuit board in each camera. The antenna gains therefore will be equal for both systems.

The Spectra and Vicra position sensors are conceptually very much the same. Each are intended to track infrared "target" markers in its field of view. The smaller Vicra system is designed for small measurement volumes for such applications as ear, nose & throat surgeries while the physically larger Spectra is designed for larger volumes, such as neuro and orthopedic surgeries. Although the systems do not share any printed circuit boards, the logic within each is very much the same. While the Spectra adds functionality like the ability to use IR-based wireless communications and an "aiming" (Class II) laser, the fundamentals of each system are essentially the same: The boards, while containing much the same logic, are designed to fit within their respective packages.

Both position sensors utilize the National Semiconductor LMX9820 Bluetooth radio module, the same ultraminiature coax connectors, the same type of coax cable and the same antenna. Both systems' radio modules are powered from each system's main board 3.3V logic supply which is produced by the same Texas Instruments silicon in each system.

If you have any queries, please do not hesitate to contact us.

Yours truly,



Tri Minh Luu, P. Eng., V.P., Engineering

TML/DH