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ATCB 6731 Whittier Ave Mclean VA 22101

Subject: Response to Dec 2<sup>nd</sup> 2005 EZNET class 2 permissive change

**Applicant: Microwave Data Systems Inc.** 

**Product: MDS EL806 Transnet LMA approval** 

Model: EL806

FCC ID: E5MDS-EL806

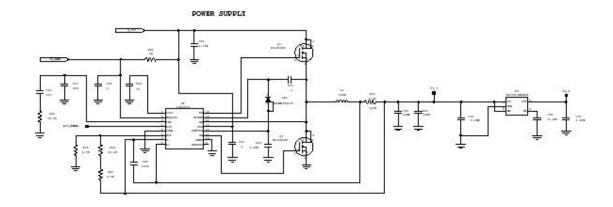
## Dear Timothy

Thanks for your questions and comments on the EZNET class 2 change to the EL806. Yes we did remove the digital side of the circuit boards power supply and shield. The shield on the opposite side of RF circuitry only covers the power supply, the microprocessor, and memory circuits. Below is the schematic of the original EL806 switching power supply that has been removed and placed on the motherboard.

All RF circuitry on the bottom (facing down in initial pictures) of the circuit board is fully shielded per the FCC modular requirements, see annotated pictures and drawings below. I think this will easily satisfy your questions and comments on the labeling and other questions.

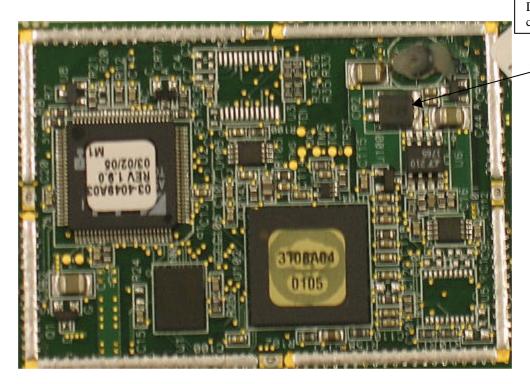
If not then please feel free to inquire for more details.

Existing EL806 power supply that was removed and the EZNET is powered from the POE, power over Ethernet off the motherboard



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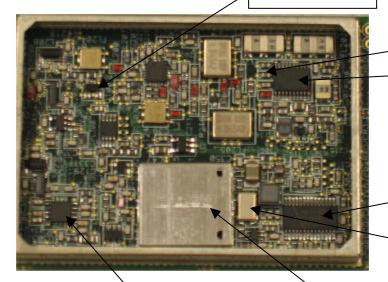
Digital side of PCB, Power supply circuit prior to removal for EZNET



Digital side Power supply circuit removed for EZNET installation

RF circuitry opposite side of PCB shield off

RF antenna switch



RCVR IF circuitry

RX demodulator

TX/RX Synthesizer

16MHz TCXO

RF Power amplifier

TX/RX VCO

## EZNET motherboard inside Antenna



Power over Ethernet supply

Internal diagnostic port

Molex pins to supply DC and communications to EL806 module

Ethernet connector to panel antenna for power and data

Labeling

Part of the Original digital side labeling



RF side facing down in EZNET with FCC part 15 text and Modules FCC ID





Contains one FCC ID and IC labeling

EL806 installed onto motherboard inside Panel antenna



This class 2 permissive change is ONLY for the ONE antenna that MAXRAD has custom designed for Microwave Data systems. The EZNET will only be offered for sale to our OEM partners installed inside this MAXRAD antenna part number Z2246, this tracks directly to MDS internal part number 93-6054A02. There are no antenna's of lower gain being considered, if there is, in the future I realize another class 2 change will be required.

Also following the intent of the FCC rules we tested and passed the FCC part 15 unintentional radiations with the digital shield removed. This was done at Elliott labs as I mentioned in my previous reply. This was done intentionally so when the EL806 was implemented into assemblies of this nature we had a good feeling that all emissions would pass and expedite new offerings to market as this PC2 shows.

If you have any queries, please do not hesitate to contact me at 585 242-8440:

Yours truly,

## **Dennis McCarthy**

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