Friday, September 30, 2005

TO: Kirby Munroe
ACS

FROM: Robert Davis
Principal RF Engineer
Advanced Metering Data Systems LLC

RE: Part 2.1033(c)(8) Response For DC Voltages Applied And Currents Into the Several Elements Of the Final Radio Frequency Amplifying Device For the Elster Transceiver

Kirby:

The final radio frequency amplifying device for the Elster Transceiver consists of an NEC UPG2118G Power Amplfier MMIC (U1 on the schematic) that obtains it's power from a regulated, switching power supply IC (VR2) that generates 3.6 VDC from an input voltage of 28 VDC.

The power amplifier UPG2118G, draws 820 mA from this 3.6 volt supply.

The 3.6 volt supply also connects to a low drop-out regulator (VR3) that produces a 3.3 volt supply that feeds the PLL (i.e. carrier frequency determining and generation circuits) and it's buffer amplifier that feed the Power Amplifier. The 3.3 volt supply also powers the TCXO (G1) that is used for the frequency reference of the unit. The combined current draw from these stages is 30 mA.

For a complete discussion of the other power supply operation of the unit, please refer to the text and the block diagram in the Theory Of Operations section that accompanies the report.

If there are any further issues associated with this matter, please do not hesitate to contact me.

Respectfully,

Robert J. Davis
Principal RF Engineer
AMDS LLC