RF Exposure

Project #:	**G100211930**	Test Area:	Intertek Louisville
Test Method:	FCC CFR47 Part 1.1310	Test Date:	Feb-2011
EUT Model #:	Model AL, Model AX		
EUT Serial #:	FCC1		
Manufacturer:	Transparent Technologies		
EUT Description:	The M2e Electric Meter Radio Transceiver offers utilities a high-performance, cost-effective radio read system. Embedded within the Landis & Gyr FOCUS kWh meter, the M2e offers superior reading performance with a clear migration path to networked AMR. The radio operates at a nominal frequency range of 903-927MHz – ISM band. The product utilizes two-way spread spectrum RF transmission and FM Digital Modulation (FSK) for its radio function. The product has a single integral antenna – Planar Inverted-F (PIFA)		
Notes:	Landis & Gyr electric meters with M2e radio embedded		

The following limit is from table 1 (B) Limits for General Population/Uncontrolled Exposure in FCC part 1.1310:

1 mW/cm²

The following calculation was used to determine compliance to the above limit. The calculation is from FCC OET bulletin 65.

$S=PG/4\pi R^2$

Where:
S=power density (in appropriate units, e.g. mW/cm²)
P=power input to the antenna.
G=power numeric gain of the antenna in the direction of interest relative to an isotropic radiator.
R=distance to the center of radiation of the antenna (appropriate unit, e.g., cm)
In this case 20cm will be used.

Tx Radio 902-927MHz
Maximum conducted output power = 24.83mW (see test report 100329070DEN-001)
Maximum gain declared by the manufacture = 6 dBi

Power Density

Power (mW)	Gain (dbi)	Gain numeric	Distance (cm)	Power Density (mW/cm²)
24.83	6	4.0	20	0.01976

Delta Limit: 0.01976mW/cm² - 1.0mW/cm² = -0.98024mW/cm²