



Sensus

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The intent of this document is to address the safety concerns pertaining to the RF emissions from Sensus' FlexNet system, specifically the SmartPoint™ transmitting from either a water, gas or electricity meter located on a residential or commercial premise. Sensus engineering analysis concludes that the Sensus FlexNet SmartPoint transmits miniscule amounts of radio frequency energy and is significantly below ever-present RF emissions from devices such as TV stations, radio stations, cellular phones, cellular networks, microwaves, etc. To demonstrate the extremely low emissions of the SmartPoint, a comparison with the energy transmitted by a cellular phone and cordless phone is presented below.

Comparing devices

The RF energy output of a cellular phone is about 250 milliwatts; cordless phone ranges from 1 to 100 milliwatts and a Sensus SmartPoint is 2 Watts (2000 milliwatts). The chart below shows RF output based on a person using either a cellular or cordless phone for 30 minutes a day as well as six transmissions by a Sensus water or gas SmartPoint and 12 transmissions by a Sensus electric meter.

Device	Milliwatts Transmission	Minutes per Day Usage	Days	Total Milliwatt Minutes Exposure
Cellular Phone	250	30	30	225,000
Cordless Phone	1-100	30	30	900-90,000
Sensus Water SmartPoint	2000	0.00567	30	340.2
Sensus Electric Meter	2000	0.01690	30	1,014
Mesh Electric Meter	1000	0.75500	30	12,650

The output of a Sensus water SmartPoint is about 660 times lower than the average use of a cell phone and the output of a Sensus electric SmartPoint is about 220 times lower than the average use of a cell phone. The output of a Sensus electric meter is about twelve times lower than a mesh electric meter.

The above numbers don't address the RF energy presented to people. The cellular phone emits its field within inches of the human head. The SmartPoint is typically mounted away from human contact such as near the meter in a basement, outside on the wall of the house or in a pit outside the house. The field strength only 10 feet away from the SmartPoint will be reduced by a factor of 1000 or more. Factors such as walls or pit installations will reduce these levels much further. We can conclude then that the total energy presented to humans by this system is at least 50,000 times less than today's cell phone.

Sensus has created a dedicated web page that provides information and links to industry resources to help consumers understand RF emissions from smart meters (<https://smartmeterresources.com/understanding-rf-and-smart-meters/>).