



# CAT M1 MODEM METER



## **ACHIEVE LOWER COSTS OF OWNERSHIP AND LOWER DATA RATES WITH CAT M1 MODEM**

### **FINALLY, A LOW COST SOLUTION FOR MODEM METERS**

Vision Metering is proud to introduce a low cost solution for using the public wireless systems to meter residential, commercial and industrial customers. The LTE Cat M1 modem is data only making it significantly less expensive than 4G LTE modems. It is the perfect choice for Machine to Machine (M2M) communications.

Cat M1 modems cost about 50% less to produce versus the 4G LTE modem, thus reducing the cost of a typical meter equipped with a modem. Data rates are also decreasing and are less for Cat M1 versus 4G LTE since it does not stream video or audio.

Cat M1 is currently available on both Verizon and AT&T nationwide. It was developed to achieve longer transmission distances and reduce the overall costs. Since it is strictly data, one antenna is used to transmit and receive. This makes the data rate slower than a typical 3G or 4G

The Cat M1 Modem Meter uses the XT-UL meter platform with UL listings coming soon for 2S, 12S & 16S meters. This is the same meter platform currently being used on the 3G and 4G modem meters..

### **ALL CAT M1 MODEM METERS INCLUDE:**

#### *Time of Use*

KW, KVAR & KVA Demand

#### *Continuously Cumulative Demand*

12 Channels of Load Profile

#### *Net Metering*

Reactive Metering

#### *Four Quadrant Metering*

400 Entry Event Log

*Cat M1 modem currently certified on Verizon*

Modem also functions on AT&T but not certified

#### *Available in All Metering Forms*

2S & 12S Meters available with 200 Amp Switch

*Cat M1 Meters can be read with MV-90, PrimeStone, Vision 2020 and Vision EndSight*

Visible LEDs indicate Modem's Operation

*Green - Blinking Heartbeat one second on/off*

*Blue - Connected to Network*

*Red/Orange - Error trying to Connect*

## GENERAL XT SPECIFICATIONS

- ANSI C12.18, C12.19, C12.20, & C37.90.1 Compliant
- Magnetically Shielded Current Transformers for Current Measurement (Optional)
- 120 - 480 VAC operation
- LCD Display is soldered to the board
- 12 Channels of Load Profile
- Time of Use
- Demand, KW, KVAR & KVA
- Reactive Metering
- Four Quadrant Metering
- 400 Events in the Event Log
- Delivered, Received and Net Metering
- Alternate Mode with programmable display values
- Accuracy Class +/-0.2%
- Shipped with Accuracy better than +/-0.15%
- Designed for 20 Year Life
- Battery options for Display, Ram, and Clock
- Continuous Instantaneous KW
- Uses Vision 20/20 Software for Programming (included with the purchase of meters at no charge)
- 50/60 Hz +/-5%
- Utilizes Maxim Teridian Technology
- 200 Amp Disconnect Switch Option
- 30 Digit User Defined Security Key
- -40 to +85 Degree C Operation
- 5 to 95% Relative Humidity
- Functions with Itron's MV90 System.
- Code Numbers assignable to Display Values
- All plastic materials meet or exceeds UL Requirements

## ORDERING INFORMATION

FM 2S	2LUU1P No Switch
FM 2S Switch	2LUU2P
FM 3S	3NUU1P
FM 4S	4NUU1P
FM 5S	5NUU1P
FM 9S	9NUU1P
FM 12S	MLUU1P No Switch
FM 12S Switch	MLUU2P
FM 16S	ZLUU1P

## COMMUNICATES WITH:

Itron™ MV-90

Primestone Primeread

Locus NOC

Vision EndSight

Vision 2020

## U-BLOX CHIPSET CHARACTERISTICS:

*Vision Metering's Cat M1 modem uses the U-Blox Sara 410 chipset.*

- Global configurability with single hardware version
- Flexible mode selection as LTE Cat M1, LTE Cat NB1, EGPRS – only/preferred
- Critical firmware updates delivered via uFOTA with LWM2M
- Low power consumption
- Extended range in buildings, basements, and with NB1, underground
- Easy migration between U-Blox 2G, 3G and 4G modules
- Cat M1/NB1 deployed bands 2, 3, 4, 5, 8, 12, 13, 20, 26, 28 and 39 in M1 only

