Date: 10 June 2015

Subject: Sixnet Cellular Modem and RAM Series Lockout Specification

A cellular data modem shall be able to use a M2M shared data plan with automatic switching between channels. Use of 4G LTE and 3G EVDO is standard. There is a dual antennae for MIMO operation (multiple input, multiple output channels). Serial and Ethernet traffic runs concurrently. There are a mini USB port and 8 to 30 VDC power via plug in connector or AC adapter with barrel plug. Three mounting styles are available: DIN rail, flush back or side mount. It operates from minus 30 to plus 75 degrees Centigrade.

Other features are:

- NAT, Port Forwarding, Dynamic DNS, DHCP
- Stateful Inspection Firewall, IP Transparency
- GRE and IPinIP
- VRRP
- GRE and IPinIP
- VPN: IPsec, SSL, GRE
- OSPF, BGP, RIP
- CE, EMC:FCC, part 15 and Industry Canada, ICES-003
- Hazardous Locations: Class I, Div. 2, Groups A,B,C,D, ISA 12.12.01
- Electrical Safety: UL508/CSA22.2/14 (CUL)

Optionally, the cellular modem shall have the capability to be a Modbus master and slave with contiguous data registers formed from multiple slave devices. Registers inside the cellular modem shall be accessible by a HMI or SCADA application over the wireless link.

The cellular modem shall have extensive event capability for providing Remote Terminal Unit (RTU) functions such as tank level control using the built-in digital input/output and analog O-5V dc input. The cellular modem shall have the capability to move the cellular communication from one tower to another in the event one tower becomes "overloaded" with wireless data traffic (automatic reconnection).

The cellular modem shall be a SN-6701-VZ or a RAM-6701-VZ.

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