



WX-SGR
WiMAX SmartGrid Router

Basic Manual

DRAFT

Contents

I. Introduction.....	2
II. Physical Description	3
III. Installation	5
1. Physical Connections.....	5
2. Site Considerations.....	5
IV. Configuration and Management.....	5
V. Status Monitoring and Reporting.....	5

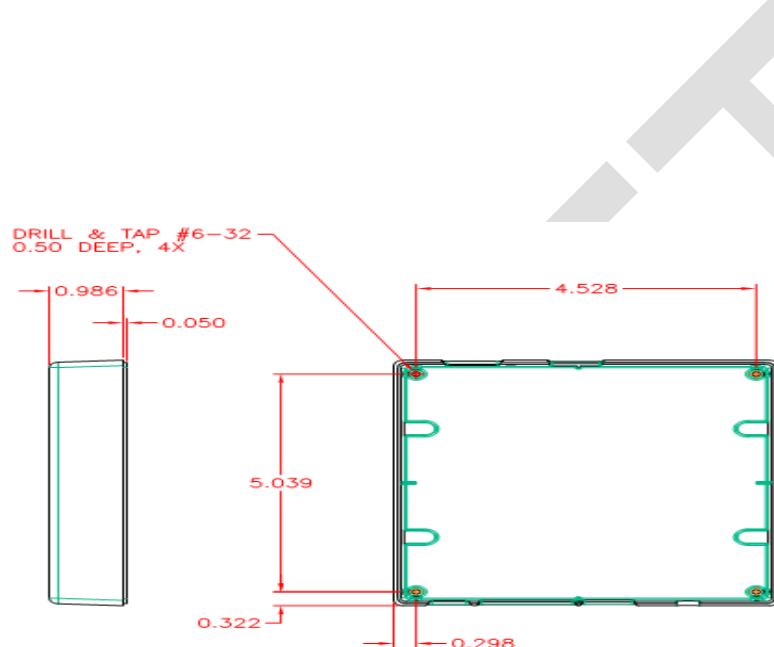
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I. Introduction

The GE WiMAX SmartGrid Router (WX-SGR) enables a utility's energy generation, transmission and distribution devices – such as protection grade meters, capacitor bank controllers, fault monitors, switches, video surveillance equipment, and distributed / micro generation equipment – to form a next-generation Smart Electric Grid network, via WiMAX communications technology and Grid Net's PolicyNet SmartGrid NMS™ network management software. The WX-SGR serves as a fully functional network access point and secure communications router for these Smart Electric Grid devices, and provides full Quality of Service (QoS), Security, Virtual Private Network (VPN), Intrusion Detection and Firewall capabilities.

When deployed together with GE's WiMAX-enabled WX-I210+c and WX-110 SmartMeters, utilities can realize a true end-to-end Smart Electric Grid solution for distribution automation, distributed/micro generation management, load control, demand response, and advanced metering.

II. Physical Description



 GRIDNET Confidential and Proprietary Information, All Rights Reserved	Document Set: GridNet-SG Router Design			Drawing Title: SmartGrid Router Physical Dimensions
	Revised: 1.0	Drawn By:	Page: 1 of 1	

Figure 1. Physical Dimensions

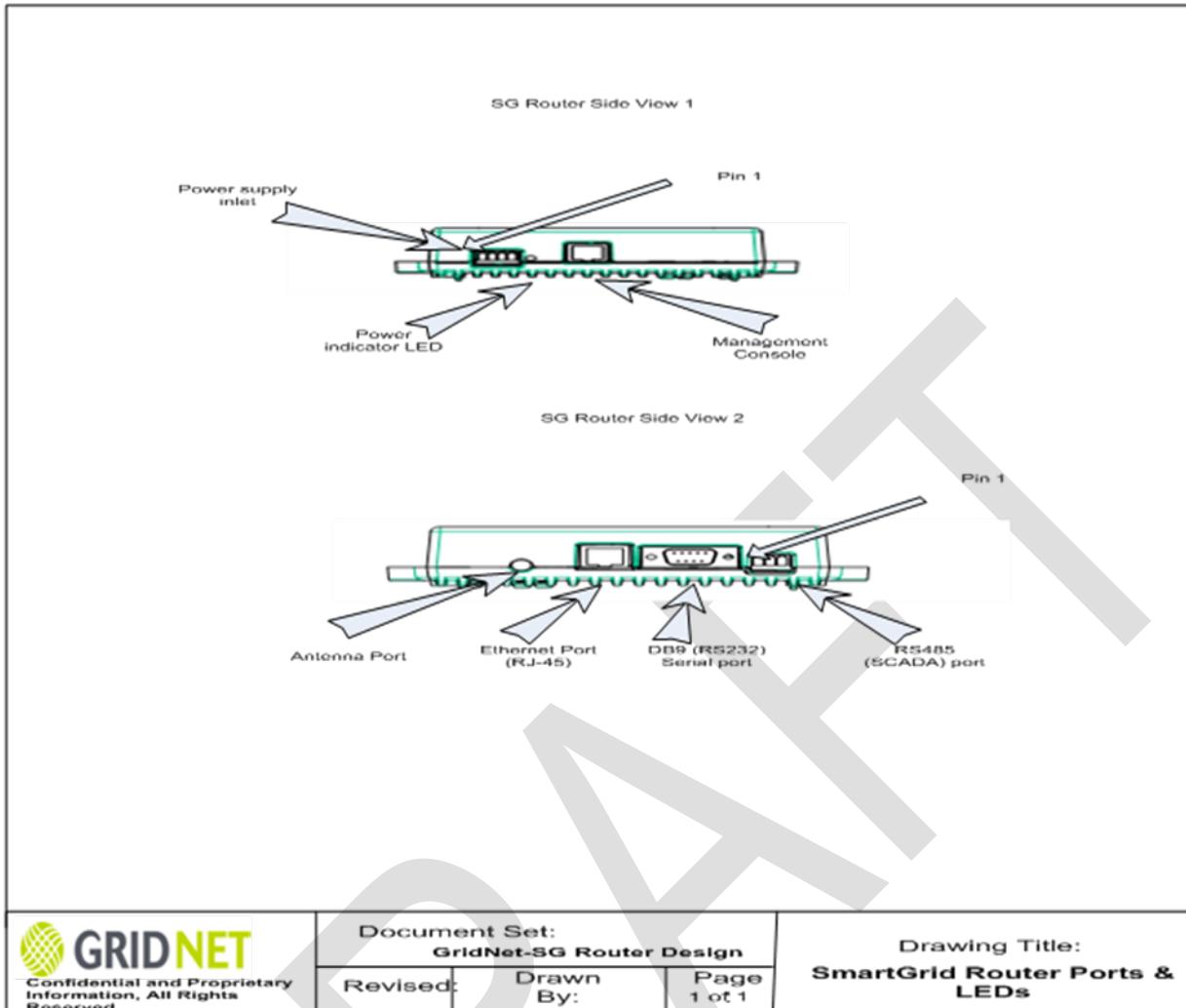


Figure 2. Ports and LEDs

III. Installation

1. Physical Connections

The WX-SGR and DA endpoint devices use a single point RS-232 connection via either a weatherproof DB-9 connector or terminal board connection. An ethernet connection(s) utilizing IPv4/IPv6 transport protocol can be set up via an RJ-45 weatherproof connector.

2. Site Considerations

The WX-SGR can be mounted outdoors in a metal case or on utility poles with an additional third-party weatherproof enclosure (to be purchased separately). The external antenna should be mounted such that it is able to communicate without any interference.

No special tools are required.

IV. Configuration and Management

The WiMAX SmartGrid Router can be configured and managed using the Command Line Interface (CLI) utility and/or via PolicyNet SG NMS. The WiMAX SmartGrid Router's various features and functionalities such as DHCP, D-DNS, NAT etc can be configured via the CLI through the WiMAX SmartGrid Router's serial port.

V. Status Monitoring and Reporting

Once the WiMAX SmartGrid Router comes online onto the Smart Grid network, it can report its status (signal strength, WiMAX performance statistics, etc.) as far as the ports and devices that are attached to it to PolicyNet SmartGrid Network Management System software.