CAS-2700-24
SMA Webbox
Modbus TCP and BACnet and HTML Gateway

Description

The SMA Webbox Driver allows the Gateway to poll a SMA Sunny Webbox for real time data. The driver can be configured to read Invertor and Sensor Box values.

The CAS Gateway serves data from a Sunny Webbox as Modbus, BACnet or Web data. The gateway supports all these options simultaneously. Use the data you want and ignore the other.

The Gateway connects to the Sunny Webbox, reads data and stores it internally. When a remote system requests data, this data is served in a form that is appropriate to the protocol.

The driver is an Ethernet driver that uses Ethernet cables and a hub or a switch to connect between the Gateway and the Sunny Webbox. The Sunny Webbox must be connected to the same network as the Gateway.

Specs.

- **UL and ULc approved**
- 10/100BaseT with RJ-45 connector
- 1x RS232 Port
- 1x RS485 Port (Different Models have additional ports)
- 2MBytes flash memory, 8MBytes of SDRAM
- Power: 5-24VDC
- Operating Temperature: 0 to 70 C
- Dimensions: 4.2" x 3.25" x 1"
- LEDs: Link, Speed/Data, Power

Max Nodes Supported

Gateway Mode	Nodes	Comments
Client	1	*Only 1 Sunny Webbox system per connection*
Server	0	*Not supported or documented.*

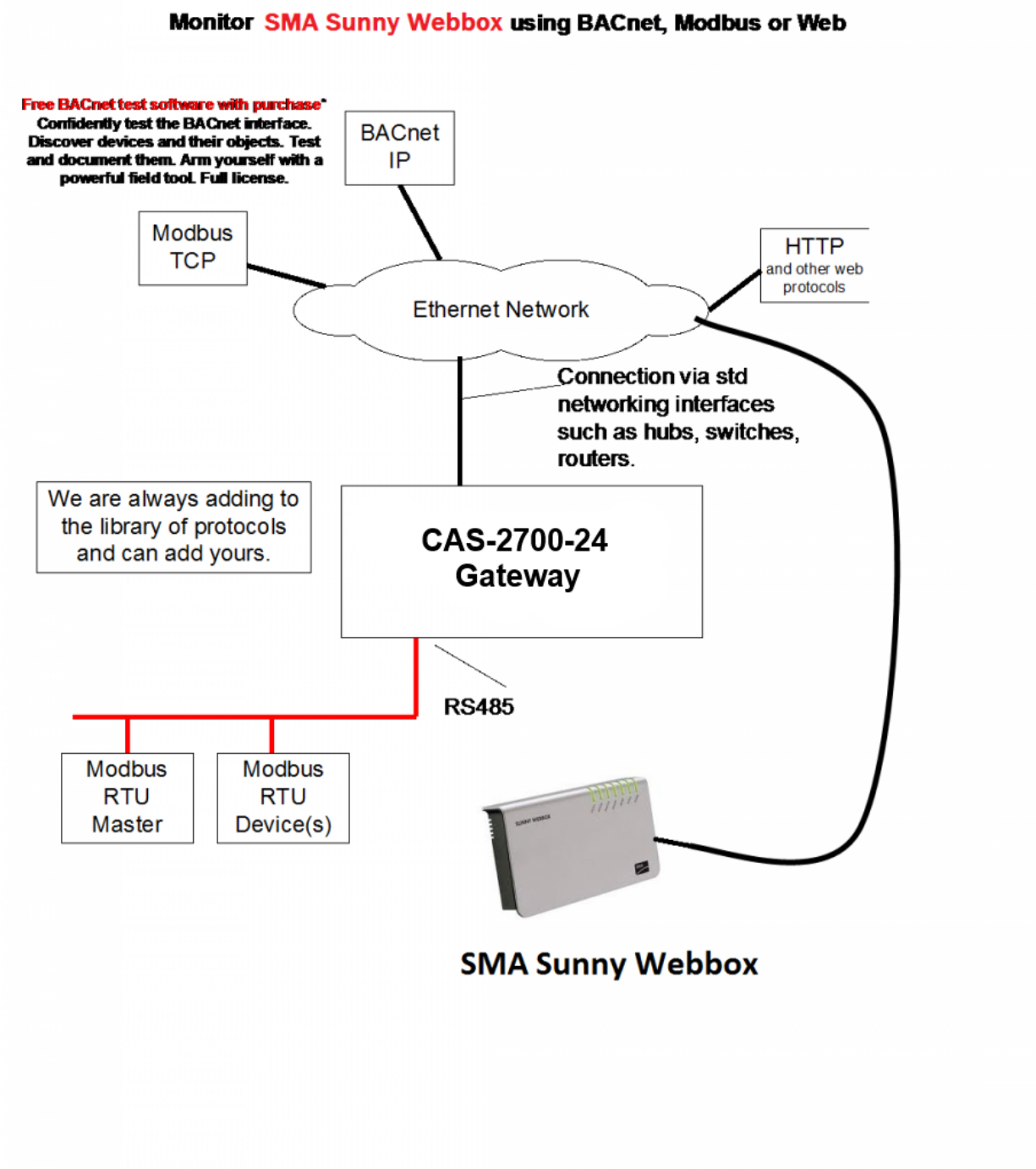
Connection Information - Port 2: Modbus RTU Server Port

Connection type:	**RS485** (Jumper change to RS232)
Baud Rates:	**9600**; 19200 Baud
Data Bits:	**8**
Stop Bits:	**1**
Parity:	**None**
Hardware interface:	N/A
Multidrop Capability	Yes

Devices tested

Device	Tested (FACTORY, SITE)
SMA Sunny Webbox	Tested

Connection configurations



Driver Operation

The driver can be configured to execute any of the commands in the 'supported function' list. The data sent is stored internally in the Gateway and is made available to other protocols (Modbus RTU, Modbus TCP, BACnet IP and HTML) .

The frequency with which each data point is read is configurable. The driver retries on errors or timeouts.

The driver reports operating stats and issues on a web page, maintains a log that can be uploaded by HTTP or ftp.

Configuration

Via Web Page. Configure IP settings, Node ID's, Baud Rate and other parameters. The names are used to form the names of the BACnet objects and populate the web page showing current values.

Use can specify

ModbusTCP: Node_ID
ModbusRTU: Node_ID, baud rate, data bits, stop bits, parity
BACnet: Device instance number, device name.

Communications functions

Supported functions.

Not all Sunny Webbox communication functions are supported. The following functions are supported by the Web based configuration. Additional functions are supported but must be configured manually.

- SMA Sunny Boy Invertors
  - WR3KU009, WR4KU009, WR5KU009, WR6KU009, WR7KU009, WR8KU009
- SMA SensorBox
  - SENS0522

Support

This driver was developed by Chipkin Automation Systems (CAS). CAS are proud to provide support for the driver. For support please call CAS at (866) 383-1657.

Revision History

Date	Resp	Format	Driver Ver.	Doc. Rev.	Comment
18. Sep. 2012	SWS		0.07	0	Created
02. Apr. 2013	ACF		0.08	0.1	Updated configuration section and the connections diagram