Technical Notification

Document number: 95-137279-A

Date: November – 2012

SAILOR 900 VSAT – SkyEdge II Access Modem setup.

Subject:

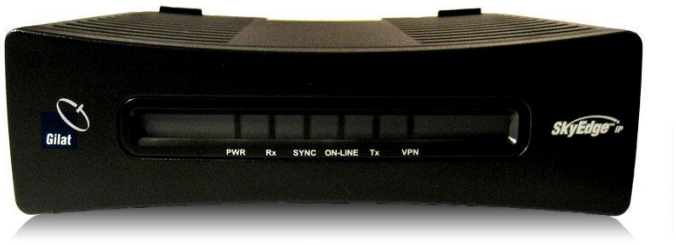
This technical note describes the installation and configuration of the SkyEdge II Access Modem from the company Gilat.

Priority:

- **LOW:** For information purposes only – no direct action needed!

Identification:

The SkyEdge II Access Modem is only supported from SAILOR 900 VSAT SW version 1.31 or better.

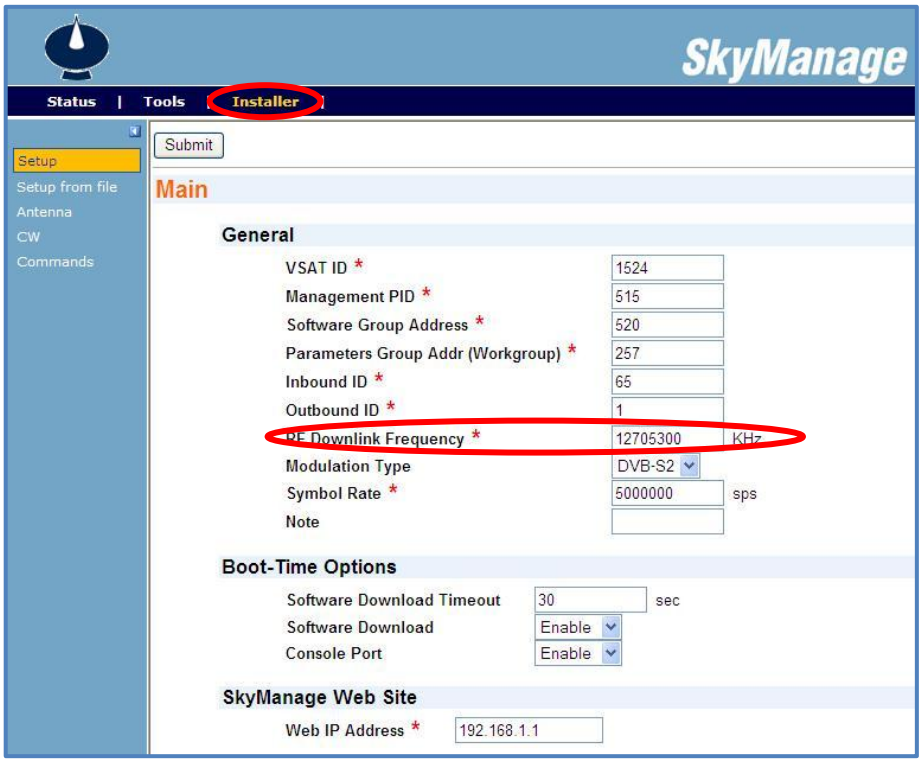


Action:

Configuration of the SkyEdge II Access Modem:

1. Connect a PC with an Ethernet cable to LAN port 1 of the modem.
2. Set the PC to static IP address: 192.168.1.2
3. Start an Internet browser (e.g. Internet Explorer, Firefox, Google Chrome or other) and go to URL://192.168.1.1 in order to get access to the webserver of the modem.
4. Login with: Username: **inst** and Password: **$Sat2598$**

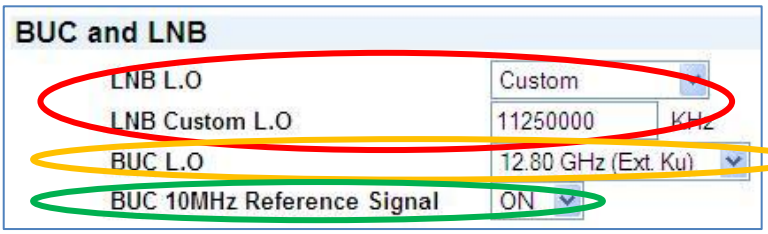
5. Go to the **Installer** menu, see below:



- **RF Downlink frequency**

  In the section **General** the RF Downlink frequency is shown. Write it down as it is going to be used for the selection of LNB LO. (**RF Downlink Frequency** = 12705300 KHz in above example).

  Go further down on the page to find the **BUC** and **LNB LO** frequencies. See below:



- **LNB LO**

  Depending on the RF Downlink frequency select an appropriate LNB LO of 9.75, 10.25, 10.75 or 11.25 GHz which will result in an L-band frequency between 950 and 1650 MHz which is the operating frequency band of the SkyEdge II Access modem.

  In the above example: **LNB Custom L.O** = 11250000
  (Because 12705300 – 11250000 = 1455.300 MHz, this falls within the operating frequency band of the SkyEdge II Access modem).

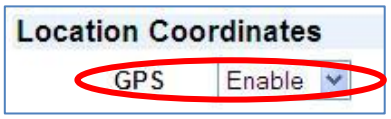
- **BUC LO**

  Select the BUC to be 12.8 GHz as this is the BUC LO of the SAILOR 900 VSAT. Remember to inform this to the hub operator when doing line-up and commissioning.

- **BUC 10MHz Reference Signal**

  The **BUC 10MHz Reference Signal** must be configured to ON, otherwise the SAILOR 900 VSAT will never allow TX.

- **Location Coordinates**
  Scroll further down to enable GPS for the **Location Coordinates**. See below:



This will enable the serial protocol of the modem so it can communicate with the ACU.

Go to the top of the page and press the **Submit** button and **OK** to save the new settings.

The SkyEdge II Access modem is now configured to be used with the SAILOR 900 VSAT.

Configuration of the SAILOR 900 VSAT:

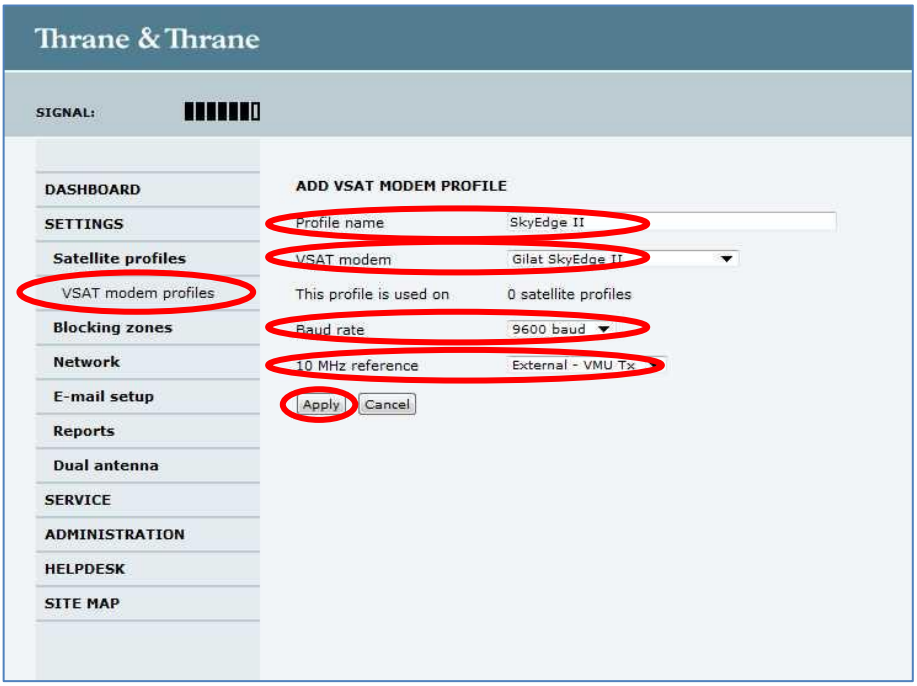
Connect the PC to the service port of the ACU (LAN 3), set the PC to static IP address: 192.168.0.2 and enter the webserver of SAILOR 900 VSAT at URL://192.168.0.1

- **Modem Profile**

  Go to **SETTINGS ➔ Satellite profiles ➔ VSAT modem profiles**, add a new entry and enter the information (see below):

  - **Profile name** — ***Name of own choice*** (e.g. SkyEdge II)
  - **VSAT modem** menu) — ***Gilat SkyEdge II*** (choose from dropdown
  - **Baud rate** — ***9600 baud*** (choose from dropdown menu)
  - **10 MHz reference** dropdown menu) — ***External – VMU Tx*** (choose from

Continued….

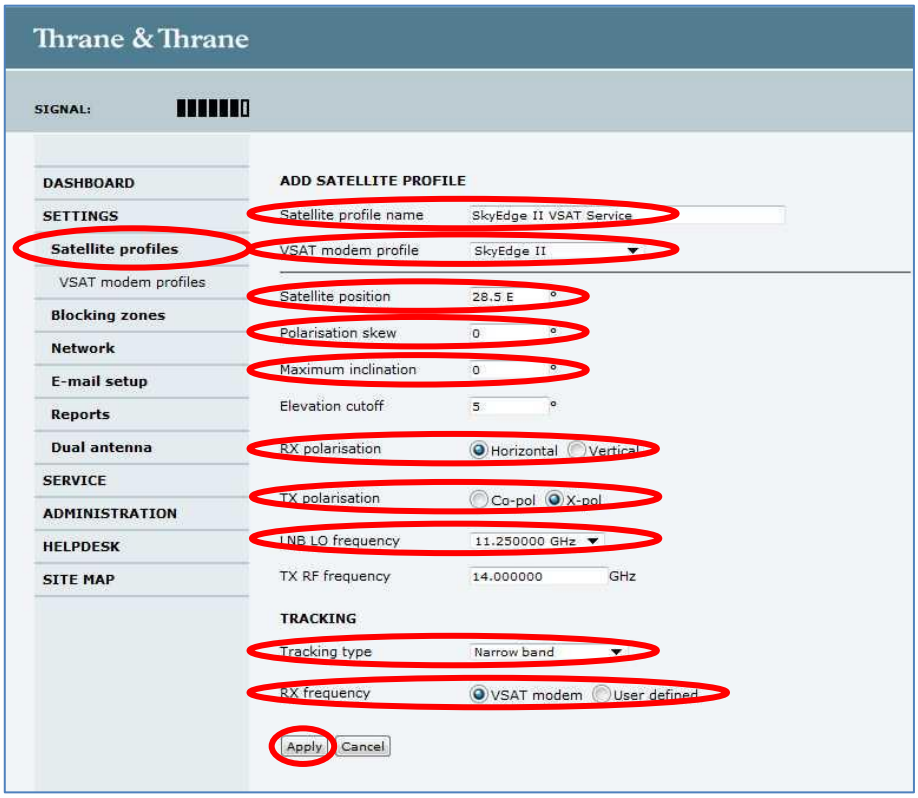


Press **Apply**.

- **Satellite Profile**

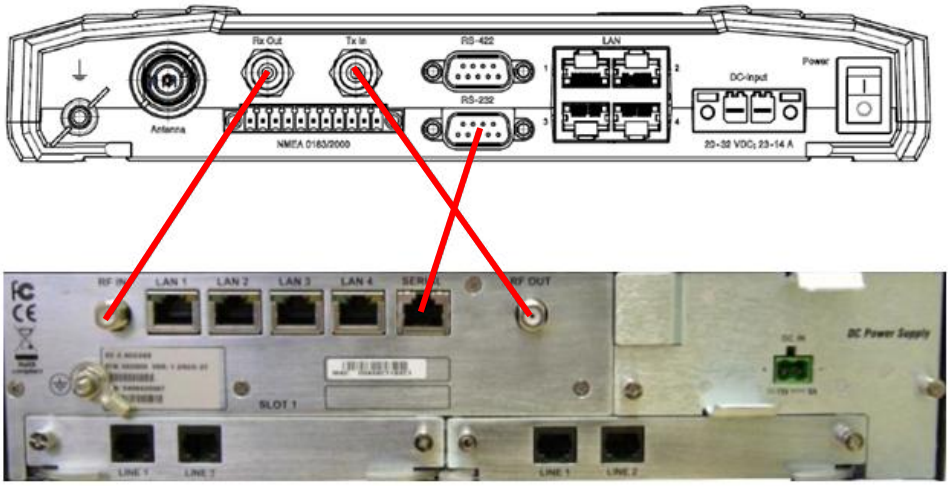
  Go to **SETTINGS ➔ Satellite profiles**, add a new entry and select the **Modem Profile** made in the previous section. Enter the satellite settings received from your service provider (see below e.g.).

  - **Satellite profile name** ***Name of own choice*** (e.g. SkyEdge II VSAT Service)
  - **VSAT modem profile** ***SkyEdge II*** (choose from dropdown menu)
  - **Satellite position** ***28.5 E°*** (enter value)
  - **Polarisation skew** ***0°*** (typically 0°) (enter value)
  - **Maximum inclination** ***0°*** (typically 0°, but older satellites may require wider searching area) (enter value)
  - **RX Polarisation** ***Horizontal*** (select)
  - **TX Polarisation** ***X-pol*** (select)
  - **LNB LO frequency** ***11.250000 GHz*** (enter value)
  - **Tracking type** ***Narrow band*** (choose from dropdown menu)
  - **Tracking RX frequency** ***VSAT modem*** (select)



Press **Apply**.

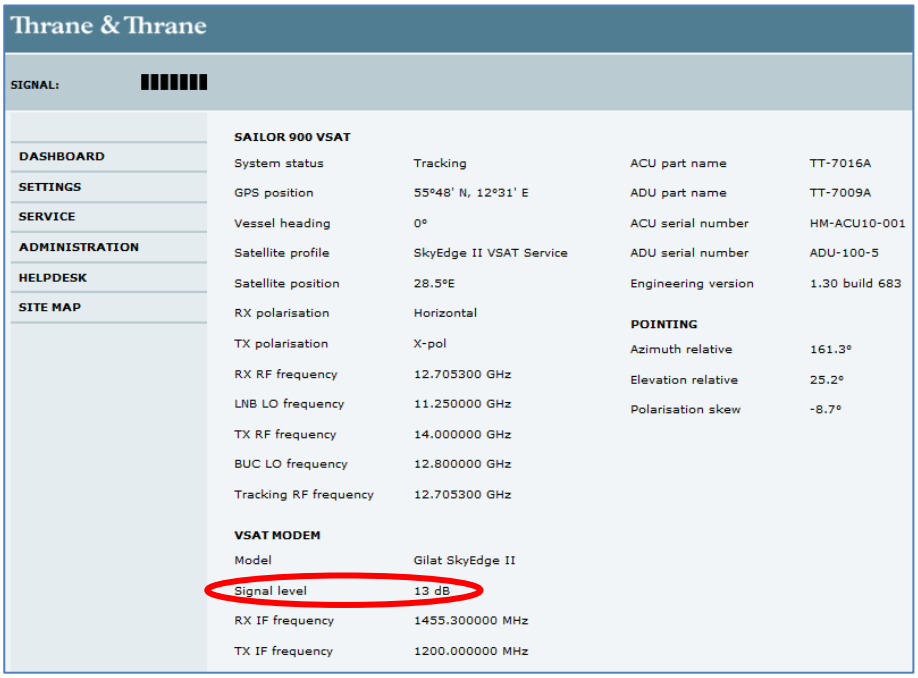
Cable connection between ACU and Modem:



- Connect the Modem **SERIAL** port to the ACU **RS-232** port (LAN ➔ RS-232 cable).
- Connect Modem **RF IN** to ACU **Rx Out** (75 Ω RF cable w/F-connectors)
- Connect Modem **RF OUT** to ACU **Tx IN** (75 Ω RF cable w/F-connectors)

Activate the **Satellite Profile**.

Wait until the Modem gets RX Lock and check the **VSAT MODEM Signal level** in the webserver of SAILOR 900 VSAT, (see below):



The Modem and VSAT system is now ready for line-up and commissioning.

This concludes the procedure.

Kind regards,

Thrane & Thrane
Customer Service