



**DATUM SYSTEMS, INC.**  
23 Las Colinas Lane #112  
San Jose, CA 95119  
<http://www.DatumSystems.com>

# **HSSI**

## **Interface for**

# **M500 Modems**

The HSSI Interface for the M500 modems is a separate option card that is installed in the modem. This provides a regular **HSSI DCE** interface.

NOTE: Above 10 Mb, the normal modem interfaces (RS449, V.35, Etc.) are not specified and they tend to not work around 12 MB customer data. This is an industry wide specification limit.

The HSSI interface can go up to 50 MB, so the actual data rate is whatever the rest of the modem will allow. Our rates are shown in Table 1.

Data Rates:

M505	5 MB
M511	10 MB
M523	29.52 MB

**TABLE 1**

The install process is fairly easy to do. The HSSI card mounts inside the modem, in the clear space between the power supply and the rear panel of the modem.

Here is a photo showing the HSSI inside a modem.



The HSSI card has three standoffs attached to the card. Also, notice that there are two ribbon cables attached to the HSSI. One of them is for connecting to the SNIP, if there is also a SNIP Ethernet option card installed.

The other cable connects to the main board. Due to the length of the cables, they install only one way when putting a HSSI in a modem.

First, remove the blank rear metal plate, saving the screws.

Second, put the HSSI in the modem.

Now, using the #6 screws and lockwashers provided, screw the HSSI onto the main chassis at the three standoff locations.

NOTE: The screws may be slightly too long. In that case, use 2 of the lockwashers on each screw.

Now, attach the new rear plate using the mounting screws that were saved when the old plate was removed.

DONE

In the case where there is a SNIP Ethernet card installed, the process is nearly the same.



The Major difference is, you need to remove the two jackscrews holding the rear plate on the SNIP card. The new rear plate includes cutouts for both the HSSI and the SNIP.

First, remove the SNIP from the modem. Remove and discard the short ribbon cable that goes from the Snip to the main board.

Next, remove the rear plate from the SNIP.

Now, attach the SNIP to the rear plate for the combined HSSI and SNIP. You may want to use locktite on the JackScrews for the SNIP. Be careful to not over-tighten the JackScrews.

Plug the short ribbon cable from the HSSI to the SNIP.

Now, install the combined HSSI and SNIP assembly using the long #6 screws and lockwashers.

Attach the rear plate onto the chassis.

Plug the ribbon cable from the HSSI to the modem.

DONE

Make sure the modem is running Software version 0.63 or above. The HSSI was not supported by the older software versions.

If you need to update the modem software, the process is simple.

Download the Update program,

[http://www.datumsystems.com/Firmware/M500 Up\\_date 2.06.zip](http://www.datumsystems.com/Firmware/M500_Up_date_2.06.zip)

The Update program has an icon to click which can download the latest software versions automatically.

Now, connect a USB cable from the PC to the modem.

Run the Update program.

NOTE: The Update process will disable customer traffic while updating.

Once the modem is running software 0.63 or higher, the HSSI interface is automatically recognized and can be selected using the the normal front panel:

INTERFACE

I/O

MODE

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The HSSI Interface has been tested with a Cisco router and proven to work. This was using using the normal Cisco CAB-1HSSI cable. Datum Systems does not supply the Cisco Cable.

The actual setup was a SNIP Ethernet modem on one end of the link, and on the other end, the modem was connected directly to the Cisco Router. This also showed the SNIP is compatible with a Cisco Router.