



# Quick Note 021

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**Determining the Module in Digi Transport routers and HSDPA/HSUPA wireless module type in a Sarian branded router to enable correct upgrade of firmware**

UK Support

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## 1 VERSION

Version Number	Status
1.0	Published
1.1	Revised to include Transport Routers

## 2 INTRODUCTION

The wireless modules in Transport router can be determined by the SKU code or model.

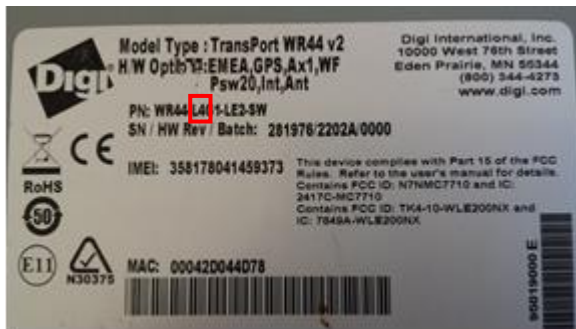
The wireless module that is installed in your HR4110, HR4420 or DR64x0 series Sarian wireless router depends upon the manufacture date of the device. This can cause differences in configuration and issues with firmware upgrades.

## 3 CHECKING THE INSTALLED MODULE (DIGI TRANSPORT)

There are several way to find the installed module.

### 3.1 Check the label

The sticker on the underside reports the hardware version, this indicates the Wireless module installed. This may however be incorrect if the unit has been returned to Digi for a repair at any point, or a wireless module has been added or upgraded since being purchased.

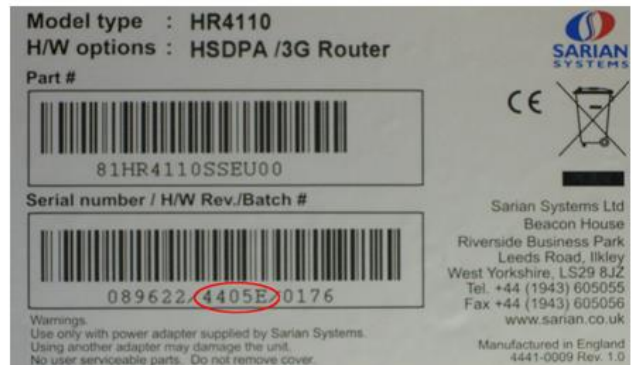


## 4 CHECKING THE INSTALLED MODULES (SARIAN)

There are several ways to check the installed module. Depending upon the current state of your hardware, it will be better to determine this in different ways.

### 4.1 Check the label

The sticker on the underside reports the hardware version, this indicates the Wireless module installed. This may however be incorrect if the unit has been returned to Sarian for a repair at any point, or a wireless module has been added or upgraded since being purchased.



Above are the two label types, the red ellipses highlight where the hardware revisions are located. The table 1 (at the end of this document) details the hardware revision and the corresponding hardware and firmware configuration.

## 4.2 Check the output of an 'ati5'

This can be done through the use of the <ati5> command at the command line. An example output is below; the important areas of text are highlighted in red.

```
ati5
Sarian Systems. Sarian HR4110 HSDPA/3G Router Ser#:89622 HW Revision: 4405e
Software Build Ver5023. Jul 14 2008 13:56:46 YW
ARM Sarian Bios Ver 4.95 v21 200MHz B64-M64-F80-00,0 MAC:00042d015e16
Power Up Profile: 0
Async Driver Revision: 1.19 Int clk
-----text omitted-----
IKE Revision: 1.0
PollANS Revision: 1.2
PPPOE Revision: 1.0
MODEM CC (Option 3G) Revision: 1.4
FLASH Write Revision: 1.2
-----text omitted-----
Tunnel Revision: 1.2
OK
```

You can see that the hardware revision is given towards the top of the output; this can be checked against Table 1. Your current firmware version is also visible, this example is 5023. The module driver is listed further down the output.

**Please note:** If your router currently has the incorrect firmware only the version will be reported correctly.

## 4.3 Check modem status

Issuing the <modemstat ?> command will also provide information to the wireless module. An example output is below. The important areas are highlighted in red.

```
modemstat ?
Outcome: Got modem status OK:
Time: 13 Aug 2008 10:56:47
SIM status: Not Ready
Signal strength: -85 dBm
Manufacturer: Option N.V.
Model: GTM378
IMEI: 352375015684848,SE3983K0Y3
IMSI: ERROR
Firmware: 2.5.7Hd (Date: Jan 11 2008, Time: 11:18:56)
GPRS Attachment Status: Not attached
GPRS Registration: Not registered, not searching
GSM Registration: Not registered, not searching
Network: 0,0,"Limited Service",2
GSM Cell mode: Unknown
WCDMA Cell mode: WCDMA+HSDPA
OK
```

You see that the manufacturer and model number of the unit are both reported. This information can be used to determine the firmware type needed through checking Table 1.

**Please note:** If the incorrect firmware version is currently installed then the modem will report the following:

```
modemstat ?
Retrieving modem status. Try again shortly
OK
```

## 4.4 Check the USB bus

To check the USB bus you issue the command `<usb show>`. An example of the output can be found below.

```
usb show
+ bus 1, usb-1
  + dev 1, port 0, OHCI root hub
  + dev 2, port 1, Novatel Wireless HSDPA Modem
```

The highlighted Novatel Wireless HSDPA Modem indicates that a Novatel HSDPA module is installed. Table 2 (at the end of this document) can be used to check the required firmware version.

## 4.5 Firmware selection

Once your firmware has been determined correctly then you are able to ensure that the correct firmware can be selected. There are two ways to update your firmware. The first is to use FlashWriter, the other is to carry it out via FTP.

**Please note:** Before undertaking any firmware update, ensure that you either create a .all file of the current router configuration or at least back up your config.da0, fw.txt and pwds.da0 files.

## 4.6 FlashWriter method

If downloading .all files for use with FlashWriter, files are posted in .zip format on the website named with the following convention; model-firmware revision-module.zip. e.g. HR4110-5023-Option.zip, would be firmware version 5023 for an HR4110 with an Option module. More information on FlashWriter can be found [here](#). FlashWriter files can be found [here](#).

## 4.7 FTP method

If downloading FTP files then the files are downloaded in the .zip file format. The .zip file naming convention is as follows (the parts relevant to updating firmware are highlighted in red): xnnnnxMx.zip where **nnnn** is the firmware revision and M corresponds to the module type. Table 3 details this for each module type. More information of the FTP method can be found [here](#). FTP files can be found [here](#).

Table 1: Table to show hardware revision and relative firmware required.

Model	Hardware Revision	Wireless module	Firmware version required
HR4110	4405B	Novatel EU740 or EU870D	Novatel
	4405C	Option GTM380 HSUPA	Option
	4405E	Option GTM378 HSDPA	
HR4420	4903A	Novatel EU740 or EU870D	Novatel
	4903C	Option GTM380 HSUPA	Option
	4903E	Option GTM378 HSDPA	
DR64x0	6103A	Novatel EU740 or EU870D	Novatel
	6103C	Option GTM380 HSUPA	Option
	6103E	Option GTM378 HSDPA	

Table 2: Table to show output of <usb show> and relative firmware required.

'usb show' output	Module installed	Firmware version required
Novatel Wireless HSDPA Modem	Novatel EU740 or EU870D	Novatel
Globetrotter HSDPA Modem	Option GT M 370	Option
Globetrotter HSUPA Modem	Option GT M 380	Option
Mini Card	Sierra wireless MC8780/MC8775	Sierra

Table 3: Table to show the manufacturer and the value for 'M' required for FTP files.

Module manufacturer	'M' value
Novatel	V
Option	G
Sierra	W