

## SAR-703 Review

The SAR-703 is the first of the ADSL modems that combines a modem and router into a single box that breaks the £100 barrier - before VAT and postage and packing of course. This brings it into direct pricing competition with devices like the Speed Touch USB modem and Fujitsu FDX-310. The device itself is distributed by [Solwise](#) in the UK and supports the relevant UK standards for DSL as well as PPPoE so it's a nice basic modem that should work for the foreseeable future. What do you get for your money, the modem, UK power supply, standard CAT5 cable, RS232 console lead, RJ11 cable and a driver CD, in other words everything you need to get going - but hey where is the manual - don't panic it's on the CD in PDF format with a copy of the Adobe Acrobat reader in case you don't have it installed. The more astute readers will have noticed a similarity to the AR-601 (discontinued August 2002) sold by [SEG Communications](#). The SAR-703 has better configuration tools making it more suited to a beginner - who has no idea what telnet or a CLI is.



### Configuration

Connecting the device up - proved very simple, got everything out of the box and plugged all the things into the sockets, there are no fiddly dipswitches or reset buttons to fiddle with.



The Ethernet cable supplied allows you to plug either the device either direct into a PC or the uplink port on a hub for connecting more than one PC, during the review I had a mixture of 3 or 4 PC's using the device via a hub. Once it was all connected next step was to look on the CD for the manual - and have a quick read, manual starts off nice and simple and walks you through installing the configuration software, then how to set the modem up for UK DSL. The next stage of the manual walks you through setting up your network card so you can access the internet using the device - some of the more astute will wonder why it didn't do this stage first, well the reason is that the configuration using the Solwise software is via the RS232 port, the device has

no web interface, there is a telnet interface and you can connect using your own terminal session over the RS232 port. The final and bulk of the manual covers the command line interface for use in telnet sessions, though the majority of users needn't worry about this.

The screenshot shows a window titled "ADSL Property Setting" with a sub-section for "PPPoA(RFC 2364) Configuration". The configuration includes:

- VCI: 38
- VPI: 0
- User name: MrSaffron@ads
- Password: [masked]
- Authentication: CHAP
- Obtain a LAN IP address from a DHCP server:
- Specify a static LAN IP address:
- LAN IP: 192 + 168 + 0 + 1
- LAN Subnetmask: ff + ff + ff + 00
- Save Password:
- NAT:
- Modulation:  Multi,  G.Lite,  G.DMT,  ANSI

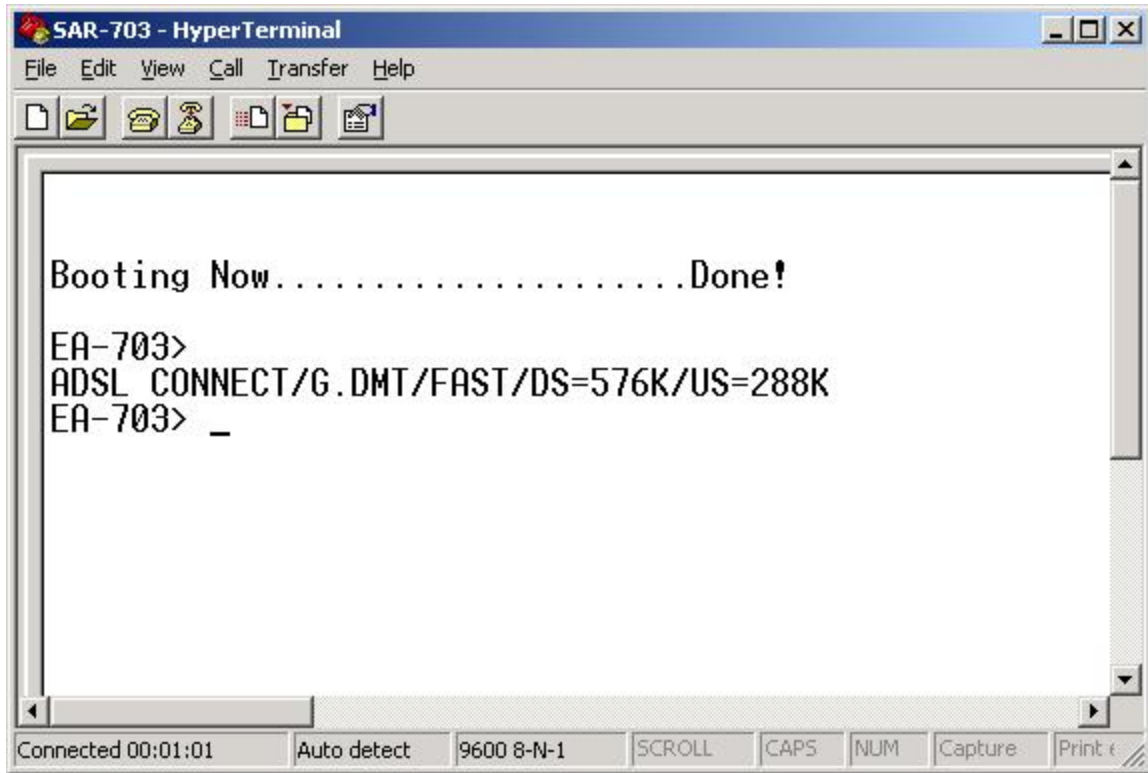
Buttons for "OK" and "cancel" are present on the right side. A link for "Setting Port Forwarding Rules" and "DHCP server/Relay and DNS Relay Settings" is also visible.

The whole setup phase for the modem took 5 minutes, plus a couple of minutes while the settings were applied to the modem and it rebooted. It's certainly one of the easier modems to setup, the advanced options are hidden away in the telnet configuration tool for the advanced users, though unlike the Speed Touch Pro setting up port forwarding is a breeze and is accomplished using the RS232 configuration software, start to finish it took me 15-20 minutes to get it running with all my port forwarding.

### Advanced Configuration

A couple of points are worth making - the DHCP server on the modem doesn't appear to work, it's available as a configuration option but selecting and configuring seems to do nothing - perhaps a later firmware release will fix this. In itself this is no great problem just means you manually specify the TCP/IP settings for the machines connecting to the device - the manual covers it all. For those who want to tinker there is support for SNMP configuration and the CLI interface allows you to see the various settings for the modem, including the CPU and memory usage on the device. The port forwarding while simple to setup could perhaps do with some extra options, i.e. no sign of forward all ports option, or the ability to forward ranges of ports, but then most home users only need two or three ports forwarded anyway. For those people who've got a block of static IP's, i.e. a NON-NAT configuration this setup is possible, but due to a lack of IP filters this exposes the telnet configuration interface of the router to the outside world, i.e. the router can't differentiate from access via the LAN or WAN sides, plus the password is not changeable so if any knew the single password they could cause havoc with your configuration. In its normal NAT mode the telnet interface is only visible from the LAN side. The inclusion of the RS232 console cable also makes it easy to monitor the router if your PC is unable to communicate with it, e.g. if

you forget or mis-configure the TCP/IP settings. The picture below shows the HyperTerminal session output from a standard boot sequence.



## Performance

In the time I've been using the SAR-703 it has performed admirably, ping wise identical to what I get from my Speed Touch Pro, so the cheaper price doesn't mean higher ping. One fault that the Speed Touch Pro has is that the NAT router can be swamped by applications refreshing long lists of servers, e.g. Counter-Strike's in game server list, the SAR-703 seems to survive this test, updating the list of 20,000 servers and was still able to use other PC's. Browsing and downloading seem to run perfectly well as well as uploads. Stability wise - nothing to worry about it seems.

## Verdict

While the router lacks some of the finesse of the more expensive models it is still good value and in fact does all that I would actually need, so if you require a simple router with basic port forwarding then this is a good choice. The ease of configuration makes it an ideal first router, with some of the other devices the sheer volume of configuration options can be very confusing, the documentation was superb I expected to get a lot less information.