

# AZTECH DSL7002GRV(S)

SingTel - Wireless N Gigabit Ethernet GIGABIT DUAL-BAND Residential Gateway

SINGAPORE | MAY 2013



# C O N T E N T S

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## Hardware Features

### WAN Connection

- ✧ Built-in **ADSL2/2+ modem** for ADSL connection
- ✧ 1-Port **Gigabit Ethernet WAN** Port for ONT (FTTH) Connection

### LAN Connection

- ✧ 4-Port **Gigabit Ethernet LAN**
- ✧ Built-in Wireless a/b/g/n Dual Band Access Point (2.4GHz and 5Ghz)

### Others

- ✧ **2 FXS Ports** for connecting analog Phone sets
- ✧ WPS – Wifi Protected Setup button support
- ✧ 2-Port USB Host for File and Printer Sharing
- ✧ LED Indicators for all interfaces and services

## Firmware Features

- ✧ Out of the box pre-configuration to support **MIO TV**, **MIO Voice** and **SingNet Broadband**
- ✧ TR069 Compliant Residential Gateway (auto configuration, remote monitoring/troubleshooting, remote firmware upgrade etc.)
- ✧ End user **do-it-yourself** installation and configuration through push pages for **ADSL**
- ✧ **Zero configuration** Internet installation for **FTTH**
- ✧ **Unique Wireless SSID** and **Wireless Key** for each of the unit (default wireless credentials are printed on the casing label sticker)
- ✧ **Dynamic LAN Port mapping** for the **IPTV – STB**
- ✧ Port Forwarding and DMZ support, configurable from the user mode pages
- ✧ Push page support for Suspected missing microfilter for ADSL
- ✧ Standard support for Wireless Security / Encryption

## Front Panel Indicators and Button

- ✧ Power
- ✧ Ethernet LAN Ports 1 to 4
- ✧ Wifi (2.4GHz and 5GHz) **NEW**
- ✧ Voice 1 and 2 (Telephone)
- ✧ USB
- ✧ IPTV
- ✧ Broadband (ADSL and Ethernet WAN)
- ✧ Internet
- ✧ WPS Indicator and button

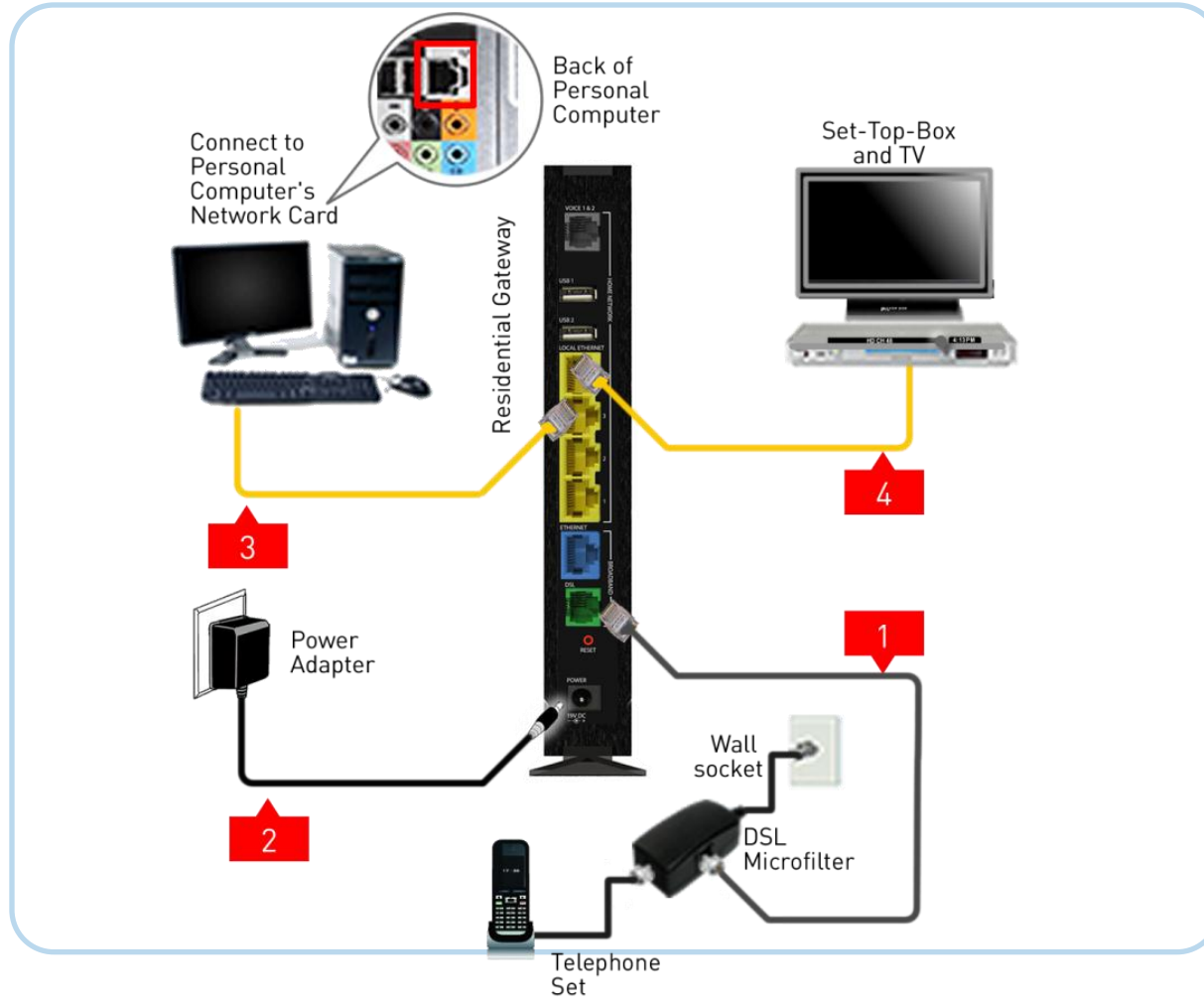


## Back Panel Ports and Button

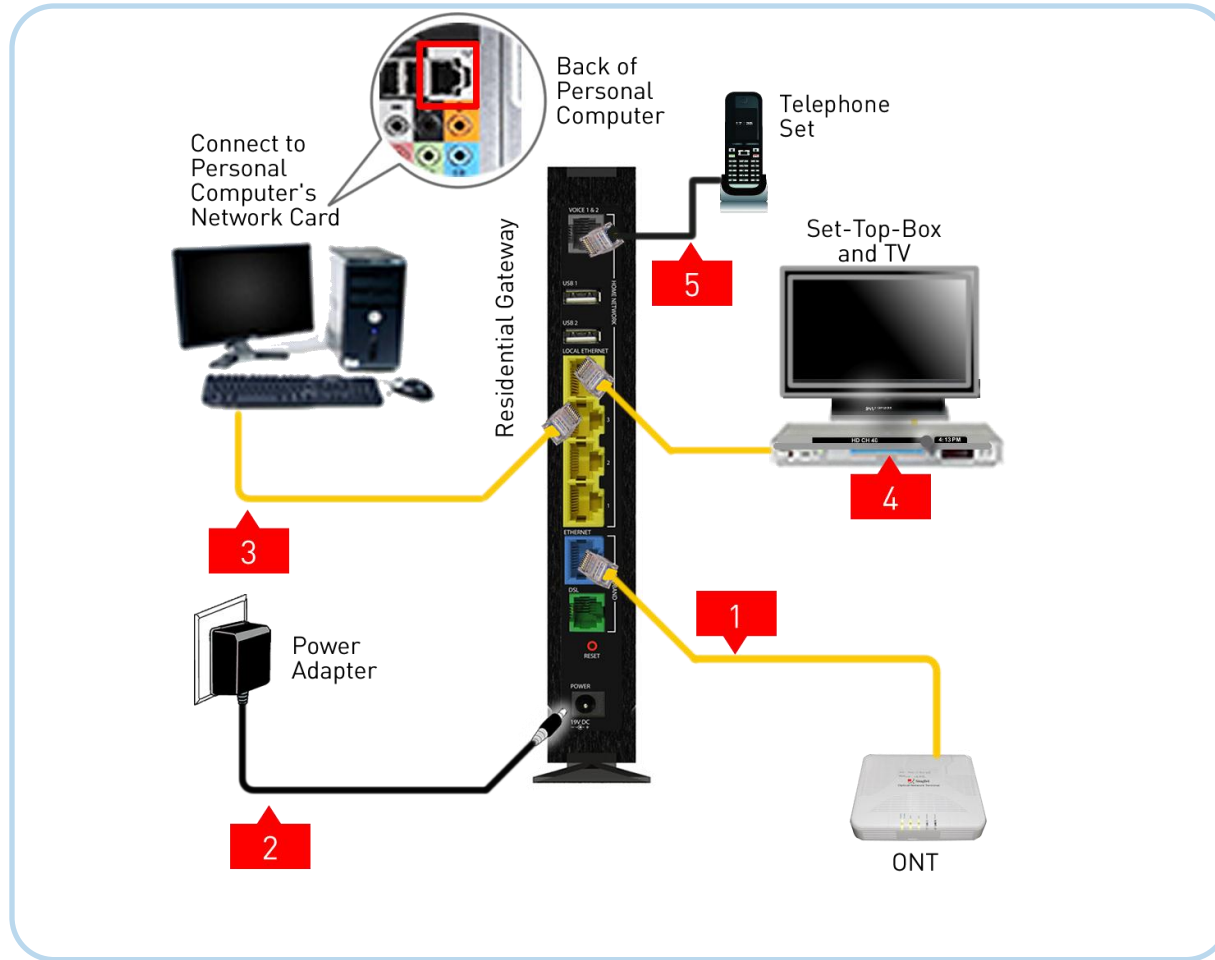
- ✕ Voice 1 and 2
- ✕ USB 1
- ✕ USB 2
- ✕ Ethernet LAN Ports 1 to 4
- ✕ Ethernet WAN Port
- ✕ ADSL Port
- ✕ Reset button
- ✕ Power Adapter Jack



## Recommended Hardware Setup (ADSL)



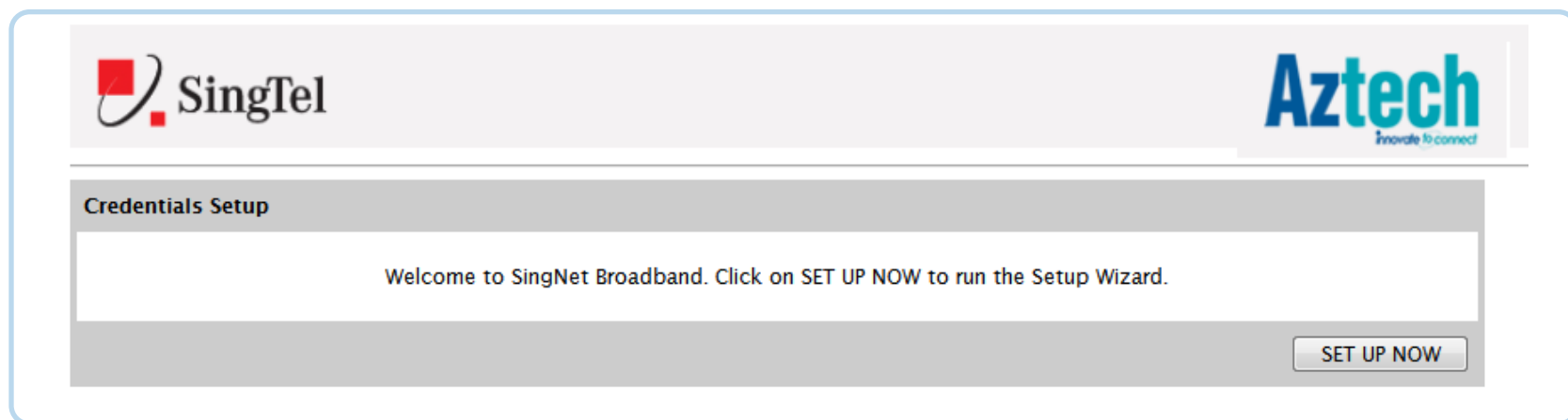
## Recommended Hardware Setup (FTTH)





## ADSL

1. Open your web-browser (e.g. Internet Explorer). You should see the following the screen. Click on "SETUP NOW".

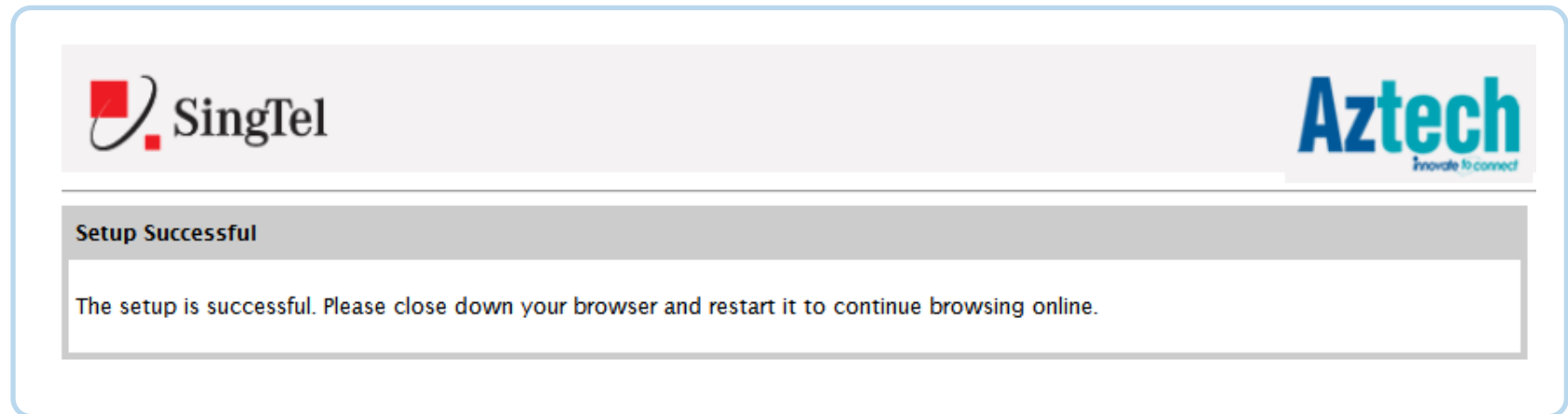


## ADSL

2. Input the User ID and Password on the "Username" and "Password" fields and click the "Connect" button.

## ADSL

3. If you entered the "Username" and "Password" correctly, you will be redirected to the "Setup Successful" page



## FTTH

To check the Internet connection for FTTH , go to <http://192.168.1.254>, scroll down to Device Info> Internet Connection

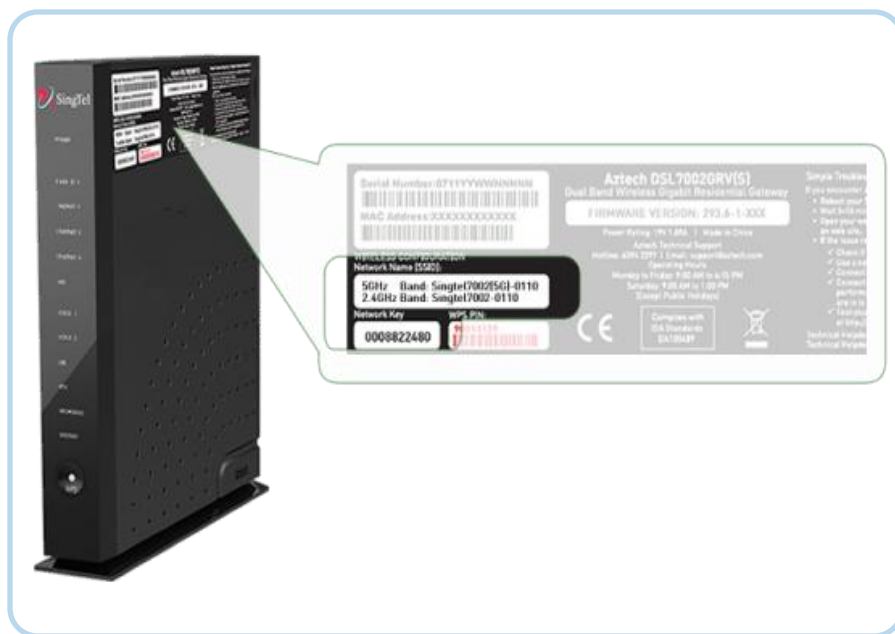
The screenshot displays the SingTel Aztech web interface for the DSL7002GRV(S) Residential Gateway. The interface includes a navigation bar with icons for Quick Setup, Home Network Configuration, Device Status, Statistics, Firewall Configuration, and Device Administration. The main content area is titled 'QuickSetup' and 'Wireless'. It provides instructions on how to check device information and control the device connection. A list of links includes Device Info, Connection Method, and Internet Login Account Settings. The 'Device Info' section is expanded, showing a table with the following details:

Model:	DSL7002GRV(S)
Board ID:	96362ADVNZh
Base MAC Address:	00:26:75:87:74:31
Serial No:	0026758776666
Firmware Version:	293.6.1-008
Software Version:	V4.12L.08
Bootloader (CFE) Version:	1.0.38-114.185

Below the table, the 'Internet Connection' status is shown as 'Connection is up.' with details for IPv6 (Disabled), IP Address (119.74.184.62), Default Gateway (116.15.165.1), Primary DNS Server (165.21.83.88), and Secondary DNS Server (165.21.100.88). The 'Voice Connection' status is also shown as 'Connection is up.'

## The Default Wireless Configuration

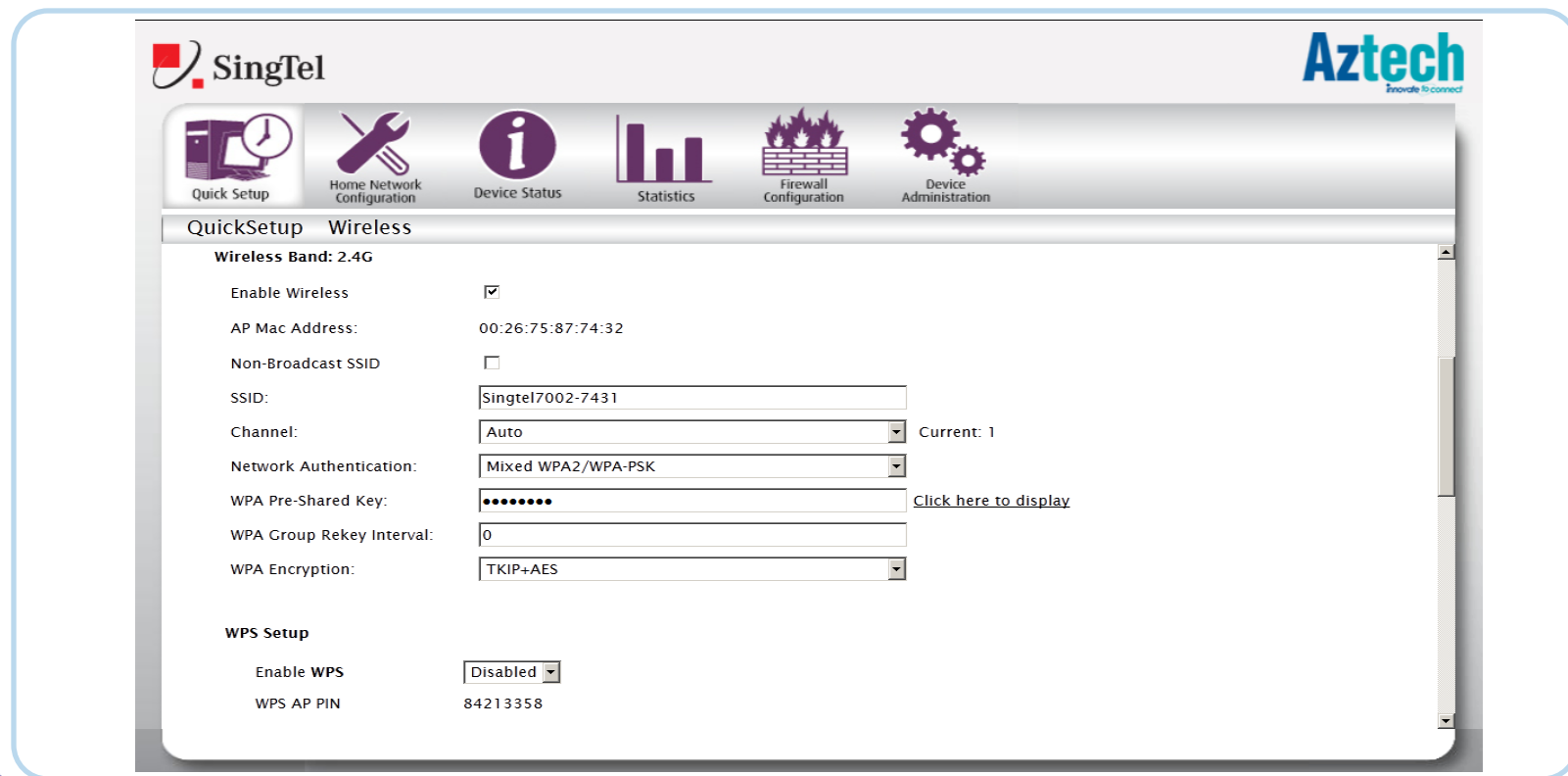
Each unit is preconfigured with a unique wireless network name and a unique password. The information on the default wireless can be found on the casing label sticker.



- ✧ The default wireless authentication is **Mixed WPA2/WPA-PSK**
- ✧ The wireless encryption is **TKIP + AES**
- ✧ Wireless channel is set to **Auto**
- ✧ The **WPS** button is **disabled** by default.  
(Enabled on FW ver. 293.6.1-009 onwards)

## Changing the Wireless Settings

Open your web-browser (e.g. Internet Explorer) and go to <http://192.168.1.254>, look for Wireless Settings sub-menu under QuickSetup icon.



## 5GHz NEW

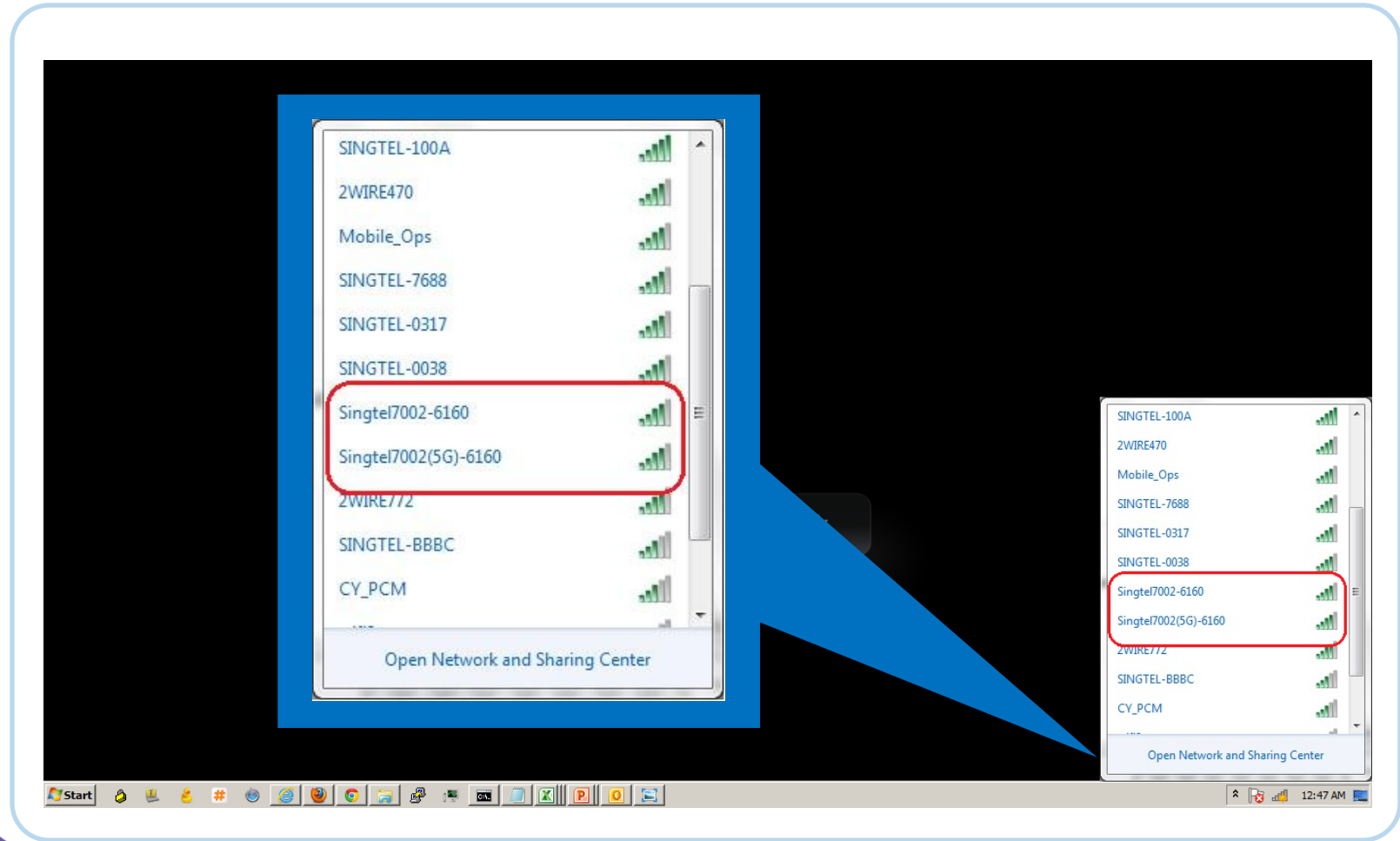
The internet surfing experience is likely to improve on 5GHz with probably lesser wireless interference. Do take note that the 5GHz SSID can only be detected if your end device supports 5GHz wireless interface as well.

The screenshot displays the web interface of the Aztech DSL7002GRV(S) Residential Gateway. The interface features a top navigation bar with the SingTel logo on the left and the Aztech logo on the right. Below the logos is a menu bar with icons for Quick Setup, Home Network Configuration, Device Status, Statistics, Firewall Configuration, and Device Administration. The main content area is titled "Wireless" and shows the "Wireless Band: 5G" configuration. The settings include:

- Enable Wireless: ☒
- AP Mac Address: 00:26:75:87:74:33
- Non-Broadcast SSID: ☐
- SSID: Singtel7002(5G)-7431
- Channel: Auto (Current: 40)
- Network Authentication: Mixed WPA2/WPA-PSK
- WPA Pre-Shared Key: ..... (Click here to display)
- WPA Group Rekey Interval: 0
- WPA Encryption: TKIP+AES

A "Save/Apply" button is located at the bottom of the configuration section.

## Connecting to 5GHz Band





## Known wireless devices that supports 5GHz band

- iPhone 5
- iPad 2
- iPad 3
- iPad 4
- iPad mini
- HTC One
- HTC One S
- HTC One X
- Sony Experia Z
- HTC Evo 4G LTE
- Samsung Galaxy S2
- Samsung Galaxy S3
- Samsung Galaxy S4
- Samsung Galaxy Note 10.1
- Samsung Galaxy Tab 2 7.0 (GT-P3113)
- Samsung Galaxy Note 1
- Samsung Galaxy Note 2

## Incoming and Outgoing Firewall Settings

The screenshot displays the SingTel Aztech DSL7002GRV(S) Residential Gateway web interface. The top navigation bar includes icons for Quick Setup, Home Network Configuration, Device Status, Statistics, Firewall Configuration (selected), and Device Administration. The main content area is titled "Firewall Settings" and contains the following text:

By default, all outgoing IP traffic from LAN is allowed, but some IP traffic can be **BLOCKED** by setting up filters.

Meanwhile, all incoming IP traffic from the WAN is blocked when the firewall is enabled. However, some IP traffic can be **ACCEPTED** by setting up filters.

Choose Add or Remove to configure outgoing/incoming IP filters.

**IP Filtering List**

Filter Name:

Direction:

Protocol:

Source IP address:

Source Subnet Mask:

Source Port (port or port:port):

Destination IP address:

☐ Destination Subnet Mask:


Destination Port (port or port:port):


**WAN Interfaces (Configured in Routing mode and with firewall enabled only)**  
Select at least one or multiple WAN interfaces displayed below to apply this rule.


☒ Select All


☒ INTERNET/eth0.1


## Port Forwarding








 Quick Setup

 Home Network Configuration

 Device Status

 Statistics

 Firewall Configuration

 Device Administration

Settings

Port Forwarding

DMZ

### Port Forwarding

Select the service name, and enter the server IP address and click "Save/Apply" to forward IP packets for this service to the specified server.

**NOTE:** The "Internal Port End" cannot be changed. It is the same as "External Port End" normally and will be the same as the "Internal Port Start" or "External Port End" if either one is modified.

Use Interface:

Server Name:

☒ Select a Service:

☐ Custom Server:

Server IP Address:

External Port Start	External Port End	Protocol	Internal Port Start	Internal Port End
		TCP		
		TCP		
		TCP		
		TCP		
		TCP		
		TCP		
		TCP		
		TCP		
		TCP		
		TCP		
		TCP		
		TCP		
		TCP		
		TCP		

Remaining number of entries that can be configured:32

Port Forwarding list

## DMZ

The screenshot shows the web interface of an Aztech Residential Gateway. The top navigation bar includes the SingTel logo on the left and the Aztech logo on the right. Below the logos is a menu bar with icons and labels for: Quick Setup, Home Network Configuration, Device Status, Statistics, Firewall Configuration (which is the active tab), and Device Administration. The main content area is titled "DMZ" and contains the following text:

**DMZ Host**

The Residential gateway will forward IP packets from the WAN that do not belong to any of the applications configured in the Port Forwarding table to the DMZ host computer.

Enter the computer's IP address and click "Apply" to activate the DMZ host.

Click "Remove" to deactivate the DMZ host.

Hostname	MAC Address	IP Address	Expires In
redtag-desktop	ac:81:12:2d:7c:1f	192.168.1.2	2 hours, 24 minutes, 58 seconds

Below the table, there is a label "DMZ Host IP Address:" followed by an empty text input field. At the bottom of the page are two buttons: "Save/Apply" and "Remove".

## Configuring the VOIP Username and Password

The voip username and password can be configured on the [admin page](#). It's under [Home Network> Voice](#).

**SingTel** **Aztech**  
Innovate to connect

**Voice - SIP Settings**

Enter the SIP parameters and click Save button to save the parameters and start the voice application.

Line	Enable	Username	Password	Status
1	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	Unregistered
2	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	Unregistered

**Save** **Refresh**

## LED Troubleshooting

### Power

- ✧ Blinking Red <-> Green – firmware upgrade in progress
- ✧ Steady Red – reset button is pressed
- ✧ Steady Red – unit is booting up or unit failed to boot
- ✧ Green – firmware is loaded to the RAM
- ✧ Off – no power or PSU faulty

### Ethernet LAN 1-4

- ✧ Blinking Green – indicates activity on the port
- ✧ Steady Green – ethernet device is connected to the port
- ✧ Off – there is no ethernet device plugged in to the port

## LED Troubleshooting

### Wireless

- ⌘ Steady Green – wireless device(s) associated to the wireless AP
- ⌘ Blinking Green – indicates wireless activity
- ⌘ Off – no wireless device associated with the AP or AP is not activated

### Voice 1 and 2

- ⌘ Steady Green – voice account is registered
- ⌘ Blinking Green – indicates an on going call or the phone is off hook
- ⌘ Off – voice account is not set or account registration failed

## LED Troubleshooting

### USB

- ✧ Steady Green – USB device is connected to the port
- ✧ Off – no device is connected

### Broadband on ADSL

- ✧ Steady Green – DSL is synchronized
- ✧ Blinking Green – DSL training
- ✧ Off – No ADSL line detected

### Broadband on FTTH

- ✧ Steady Green – WAN ethernet port is connected to the ONT or an ethernet device
- ✧ Off – No connection on the WAN ethernet



## LED Troubleshooting

### IPTV

- ✧ Steady Green – IPTV service is working, STB is plugged in and streaming
- ✧ Steady Red – STB is not plugged in or STB is on DRA mode (if STB is plugged in) or STB is rebooting (if STB is plugged in) or IPTV service failed (if STB is plugged in) or no multicast streams coming (if STB is plugged in)
- ✧ Off – no service or service is down

### Internet on ADSL

- ✧ Steady Green – PPP connection is up and the interface is with an IP address
- ✧ Blinking Green – indicates internet activity
- ✧ Steady Red – PPP authentication failed
- ✧ Off – PPP is not set

## LED Troubleshooting

### Internet on FTTH

- ⌘ Steady Green –connection is up and the interface is with an IP address
- ⌘ Off - no internet connection

### WPS

- ⌘ Steady Green –WPS is activated
- ⌘ Blinking Green – WPS is ready to connect
- ⌘ Off - WPS not activated

## Wireless Troubleshooting

1. Always start with the wireless credentials, SSID and wireless, if the wireless clients cannot connect to the AP
2. Think of the possibility of wireless channel congestion
  - ✧ Change to other wireless channels, rarely used channels, 7, 8, 9, 2, 3
  - ✧ If the wireless channel is so congested, the wireless client may get an IP address but might not be able to, from time to time, surf the internet or use the wireless network resource
3. Place the RG on a flat surface away from:
  - ✧ Blockage such as artificial barriers
  - ✧ Electronic devices such as bluetooth devices, microwave ovens and cordless telephones
  - ✧ Water containing equipment filled with water

## Frequently Asked Questions

CAN I USE BOTH 2.4GHz AND 5GHz BAND AT THE SAME TIME?

Yes, both bands are enable by default

WHAT IS THE MAXIMUM NUMBER OF CLIENT IT CAN SUPPORT FOR WIRELESS?

30 for 2.4ghz band and 30 for 5ghz band.

WHAT ARE THE STORAGE FORMATS DOES IT SUPPORT FOR USB?

FAT, FAT32 and NTFS.

CAN I CONFIGURE MAC FILTERING ON DSL7002GRV(S)?

No, MAC filtering feature is not supported

# Frequently Asked Questions

HOW CAN I TELL IF MY WIRELESS ADAPTER SUPPORTS 5GHZ BAND?

List of wireless standards and its compatibility.

Wireless Standards Wireless Client	2.4 GHz (20MHz/40MHz)	5 GHz (20MHz/40MHz)	5 GHz (80MHz)
802.11ac	✓	✓	✓
802.11abgn	✓	✓	
802.11a		✓	
802.11b	✓		
802.11g	✓		
802.11n	✓		

## Service Center Address:

31 Ubi Road 1 Aztech Building

Lobby B 5th Floor

Singapore 408694

## Hotline:

6594 2297

## Email:

[support@aztech.com](mailto:support@aztech.com)

## Operating Hours

Monday to Friday: 9:00 AM to 6:15 PM

Saturday: 9:00 AM to 1:00 PM

(Except Public Holidays)

Thank You