



AR 18-2X Series Router Datasheet

Table of Contents

1 Introduction	4
2 Key benefits	6
2.1 Network Security.....	6
2.2 Rich and Cost-Effective VPN Solutions.....	6
2.3 Densest Ethernet Interface	6
2.4 High performance	6
3 Specifications	6
3.1 Product features	6
3.2 Hardware Specification.....	7
4 Ordering Guide	8
4.1 Ordering AR 18-2x Series Routers.....	8
4.2 Ordering Cables.....	9

List of Figures

Figure 1-1 Quidway AR18-20/-20S Rear View	4
Figure 1-2 Quidway AR18-21 Rear View	4
Figure 1-3 Quidway AR18-21A Rear View	
Figure 1-4 Quidway AR18-21B Rear View.....	
Figure 1-5 Quidway AR18-22 Rear View	5
Figure 1-6 Quidway AR18-22-24 Rear View.....	5
Figure 1-6 Quidway AR18-22S-8 Rear View	5
Figure 1-8 Quidway AR18-23S-1 Rear View	5

List of Tables

Table 3-1 Software Specifications of Quidway AR 18-2X Ethernet Router	6
Table 3-2 Hardware Specifications of AR 18-2x Ethernet Router	7
Table 4-1 Ordering list of Quidway AR 18-2x Series Routers	9
Table 4-2 External cable assembly suite for Quidway AR 18-2x Series Routers.....	9

1 Introduction

The Quidway AR 18-2x Series Ethernet Router is Ethernet broadband SOHO router. With plentiful fast Ethernet interfaces, robust packet processing capability, abundant services, and also streamline outlook, Quidway AR 18-2x Series Router features high cost-effective performance, and can be applied in SOHO solutions and SME as a branch router. They include AR 18-20/18-20S/18-21/18-22/18-22-24/18-23S-1/18-22S-8/18-21A/8-21B models.

Currently, Quidway AR 18-2x Ethernet Routers consist of three types in terms of LAN interface density:

- AR 18-20/18-20S/18-21/18-22/21A/21B (four LAN interfaces by default)
- The AR 18-22S-8 and AR 18-22-24 (8 or 24 switched LAN interfaces), and the AR 18-22-24 has the densest LAN interfaces.
- The AR 18-23S-1 supports four independent Layer 3 Ethernet interfaces and hardware encryption as well, providing high forwarding performance.

Quidway AR 18-2x Series Routers are Ethernet access routers and provide 10BASE-T or 10/100BASE-Tx interface in the uplink direction and 10/100BASE-T Ethernet interface in the downlink direction. Data exchange between these ports is a layer 2 switching and can implement port isolation. In addition, the built-in hardware encryption chip of the AR 18-20S, AR 18-22S-8 and AR 18-23S-1 greatly enhance the encryption performance.



Figure 1-1 Quidway AR18-20/-20S Rear View



Figure 1-2 Quidway AR18-21 Rear View



Figure 1-3 Quidway AR18-21A Rear View



Figure 1-4 Quidway AR18-21B Rear View



Figure 1-5 Quidway AR18-22 Rear View



Figure 1-6 Quidway AR18-22-24 Rear View



Figure 1-7 Quidway AR18-22S-8 Rear View



Figure 1-8 Quidway AR18-23S-1 Rear View

2 Key benefits

2.1 Network Security

Quidway AR 18-2x Series Routers provide abundant network security features, such as firewall, packet filtering, network address translation (NAT), authentication, authorization and accounting (AAA), and callback. Hence, users can select different security policies to build enterprise networks.

2.2 Rich and Cost-Effective VPN Solutions

Access VPN provides secure tunnels for small-sized users like SOHO to access the resources of company headquarters via PSTN/ISDN. Quidway AR 18-2x Series Router is mainly used at the access end of VPN. It can provide a lot of VPN solutions, such as dynamic VPN, L2TP, GRE, IPSec, IKE, as well as MPLS VPN and will greatly reduce customers' costs.

2.3 Densest Ethernet Interface

Quidway AR 18-2x Series Routers provide densest 10/100MBASE-T Ethernet WAN interface. By configuring Point-to-Point Protocol over Ethernet (PPPoE), hosts in LAN can access the Internet via Ethernet and the monitoring and accounting functions can be implemented on every access host. Therefore, Quidway AR 18-2x Series Routers are cost-effective and widely used in the construction of campus broadband networks.

2.4 High performance

AR 18-2X series router adopts advanced CPU technology and delivers high forwarding performance. It provides wire-speed forwarding on Ethernet interface. In addition, the built-in hardware encryption chip of the AR 18-20S, AR 18-22S-8 and AR 18-23S-1 greatly enhance the encryption performance.

3 Specifications

3.1 Product features

Table 3-1 Software Specifications of Quidway AR 18-2X Ethernet Router

Data Link Layer Protocols	802.1Q, Ethernet, PPPoE Server / Client, PPP, MP
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Network Layer Protocols	IP, ICMP, IP Fast Switch, DHCP Client / Server / Relay, ARP, Proxy ARP
Routing Protocols	Static Routing, OSPF, RIP v1/v2, Policy Routing, IGMP, PIM-SM, PIM-DM, MSDP
Application Layer Protocols	Telnet, SSH, FTP Server / Client, TFTP, File system, NTP, Configuration function, SNMP, RMON
Security Characteristics	AAA, RADIUS, Huawei-TACACS, Firewall, ASPF, NAT, ACL, L2TP, GRE, IPSec, IKE, PKI
QoS	RED/WRED, CAR, GTS, LR, PQ, CQ, WFQ, CBQ, RTPQ, LLQ
Reliability Functions	VRRP, Backup Center

3.2 Hardware Specification

Table 3-2 Hardware Specifications of AR 18-2x Ethernet Router

Interface	Console port (CON)	10/100M Ethernet LAN interface	10M Ethernet WAN interface	10/100M Ethernet WAN interface	ADSL2+ over POTS interface	ADSL2+ over ISDN interface
AR 18-20	1	4 (Layer 2)	1	-	-	-
AR 18-20S	1	4 (Layer 2)	1	-	-	-
AR 18-21	1	4 (Layer 2)	-	1	-	-
AR 18-22	1	4 (Layer 2)	-	2	-	-
AR 18-22S-8	1	8 (Layer 2)	-	2	-	-
AR 18-23S-1	1	1 (Layer 3)	-	3	-	-
AR 18-22-24	1	24 (Layer 2)	-	2	-	-
AR 18-21A	1	4 (Layer 2)	-	1	1	-
AR 18-21B	1	4 (Layer 2)	-	1	-	1

Item	AR 18-20	AR 18-20s	AR 18-21A/ 18-21B	AR 18-21/18-22	AR 18-22-24	AR 18-22S-8	AR 18-23S-1
Processor	MPC859		BCM	MPC824 7	MPC824 1	MPC8248	
SDRAM	64MB						
Flash	8MB						

Item	AR 18-20	AR 18-20s	AR 18-21A/18-21B	AR 18-21/18-22	AR 18-22-24	AR 18-22S-8	AR 18-23S-1
Encryption chip	None	Encryption algorithm: DES, 3DES Authentication algorithm: MD4, MD5, SHA-1	None		Encryption algorithm: DES, 3DES Authentication algorithm: MD4, MD5, SHA-1		
VLAN management	No		Supported				No
Max power consumption	10 W				20 W	10 W	
Power supply	Input	Rated voltage range: 100 VAC to 240 VAC; 50 Hz or 60 Hz Max voltage range: 90 VAC to 264 VAC; 50 Hz or 60 Hz Current: 0.5 A to 1 A			Rated voltage range: 100 VAC to 240 VAC; 50 Hz or 60 Hz Max voltage range: 90 VAC to 264 VAC; 50 Hz or 60 Hz		
	Output	Voltage: 12 VDC Current: 4 A					
Physical dimensions (H x W x D)	180 x 300 x 45 mm (70.9 x 118.1 x 17.7 in.) Max (including bulge)				205 x 435 x 42 mm (80.7 x 171.3 x 16.5 in)	225 x 300 x 42 mm (88.6 x 118.1 x 16.5 in)	
Weight	1 kg (2.2 lb)				3.0kg (6.6 lb)	2.1kg (4.6 lb)	2.0kg (4.4 lb)
Operating temperature	0°C to 40°C (32°F to 104°F)						
Relative humidity (non-condensing)	5% to 90%						

4 Ordering Guide

4.1 Ordering AR 18-2x Series Routers

The following table lists the models in Quidway AR 18-2x Series Routers and their accessories.

Table 4-1 Ordering list of Quidway AR 18-2x Series Routers

Item	Quantity	Remark
Router (AR 18-20/18-20S/18-21/18-22/18-22-24/18-22S-8/18-23S-1/18-21A/18-21B)	1	Only 12 VDC-powered routers are available. You may choose the model according to the desired interfaces.
External power supply unit (PSU)	1	AC/DC PSU, required
AC power cord	1	Required
PGND wire	1	Required
Console cable	1	Required

4.2 Ordering Cables

Users can select cables from the external cable assembly suite provided by Quidway AR 18-2x Series Routers. For configuration details, refer to *Quidway AR 18-2x Series Routers Installation Manual*.

Table 4-2 External cable assembly suite for Quidway AR 18-2x Series Routers

Item	Quantity	Remark
Ethernet cable	1/4	Optional
Telephone line	1/2	Optional
AUX cable	1	Optional

Note:

“Required” means that the item will be provided along with the router, and there is no need to make a selection.

“Optional” means that the item will not be provided along with the router unless the user selects it.

5 Safety and Compliance

Emissions / Agency Approvals

CISPR 22 Class B

ETSI EN300 386 Class B

EN 61000-3-2

Immunity

Product conforms to:

Quidway® AR 18 Series Router Datasheet

IEC61000-4-3 (1995) Class A

ETSI EN300 386 V1.3.1 (2001) Class A

IEC1000-4-6(1996) Class A

ETSI EN300 386 V1.3.1 (2001) Class A

Safety Agency Certifications

Insulation (indoor/outdoor)	IEC60950
Dielectrical Strength (indoor/outdoor)	IEC60950
Leakage Current (indoor/outdoor)	IEC60950
Construction inspection (indoor/outdoor)	IEC60950
Fire resistance (indoor/outdoor)	IEC60950

MTBF

AR 18-20	42.69years
AR 18-20S	42.06years
AR 18-21	42.06years
AR 18-22	42.06years
AR 18-22S-8	42.69years
AR 18-23S-1	42.69years
AR 18-22-24	42.69years
AR 18-21A	42.69years
AR 18-21B	42.69years