

# IP DSLAM Product QPIZZA 4100

## Overview

The QPIZZA 4100 is an advanced IP based DSLAM that can be used by service providers interested in offering broadband multi-service features on the last mile access network on copper based local loop, it offers ADSL, ADSL2, and ADSL2+ interfaces and delivers advanced IP services that include QoS, multicast, subscriber management. These service features, stave off clogging and congestion of the bandwidth available to the users allowing smooth, easy and efficient passage of video, voice and data packets across the networks, which also enables operators to increase their revenues and maximize their profits manifold.

The superior and feature rich design makes QPIZZA 4100 the most economical and the most suitable solution for the next generation broadband access platforms. It provides among other advantages easy maintenance and easy installation, which in turn reduces operating cost and network down time to the service providers.

## Applications

- Internet Service
- Virtual Private Network Service

## Software Features

- Local system configuration and management through RS-232 console
- Remote system configuration and management using Telnet or "QDSL View" (Management System software) through in-band (network uplink interface) connection
- Remote reset.
- Embedded SNMP v1, v2c management agent with standard MIB-II
- Support FTP/TFTP firmware upgrade
- Support Subscriber traffic isolation among ADSL line ports
- Support RFC 2684 multi-protocol over AAL5
- Support RFC 2516 PPPoE packet forwarding
- Support RFC 2364 PPPoA packet forwarding
- Support QoS for IEEE 802.1p priority queues
- Support Subscriber rate limiting
- Support IEEE 802.1Q VLAN tagging
- Manually configurable mapping between VLAN tag and ATM PVC
- Support IEEE 802.1D spanning tree bridging between Network uplink interface and any ADSL Subscriber interface
- Support IGMP snooping and GMRP
- Support OAM F5 fault diagnostic
- Support MAC address access control
- Support IP packet filtering
- Support IEEE 802.3ad link aggregation on Network uplink interface
- Support DHCP Relay and PPPoE relay

The logo for QUICKTEL, featuring the word "QUICKTEL" in a bold, blue, sans-serif font. Above the letters "I", "C", and "K" are stylized, overlapping swooshes in blue and yellow, suggesting speed and connectivity.

## Hardware Features:

- Support service capacity expansion via units stacking
- 2 of 10/100/1000 Ethernet uplink Network uplink interfaces
- High speed Internet access with ADSL2/2+; backward compatible with ADSL
- Pizza box type supports 48 ADSL ports and build-in POTS splitter equipped available
- Existing twisted pair telephone line via POTS splitter/Low-Pass-Filter, it means ADSL and Telephone services can be provided concurrently
- Support non-blocking switching fabric and Wire-speed switching capability.
- Cost effective access solution for always on high-speed Internet service application
- Auto Sensing detects the VC multiplexing type and Identify higher layer protocol on an ATM VC automatically and dynamically
- Up to 8 PVCs per port
- Support Seamless Rate Adaptation for ADSL2/ADSL2+
- Support Power Management for ADSL2/ADSL2+

## Specifications:

### Software:

#### System Control

- Alarm Status Surveillance
  - Automatic alarm and status report
  - LED indication for system status
  - Classification of alarm level
  - Alarm/event history
- Performance Monitoring
  - Line rate
  - Throughput monitoring
  - RFC 2662/RFC 3440 compliant ADSL line performance parameters gathering
  - Support ICMP ping test

#### Configuration

- Support add, delete, query, and modify functions for configuration
- IGMP snooping setting
- VLAN setting
- STP setting
- ADSL Subscriber line management per profile setting
- Support MIB community string, community access privilege, Trap IP setting
- System firmware upgrade and download through TFTP
- BOOTP/DHCP client
- Backup recovery
- Restore Default configuration

#### Security

- Support security and multiple level login
- Support MAC address binding to port
- Support MAC address tracking
- Back-up system configuration
- Keep previous system parameters during re-booting

#### VLAN

- Support IEEE 802.1Q VLAN Tagging, Port-based VLAN, and GVRP
- Support 512 VLANs concurrently

#### Link Aggregation

- Support 802.3ad static and dynamic link aggregation

#### QoS

- Support IEEE 802.1p with 4-priority queues
- DiffServ support
- Pack classification basis on MAC/IP addresses and TCP/UDP port number

#### Multicas

- Support IGMP snooping on IGMPv1 and IGMP v2 membership
- Up to 256 Multicast Groups and 256 copies for each Multicast Group
- Broadcast storm control

#### Bridging

- 4K MAC addresses
- MAC, IP, TCP/UDP port addresses filtering

#### OAM and Access Control

- ADSL Subscriber MAC address number limiting
- ICMP Ping diagnosis
- OAM F5 diagnosis
- Network management services control
- SELT and DELT loop testing

#### Network Management

- CLI through console and Telnet
- SNMP manageable
- Provide configuration, fault, performance, security management

#### Diagnostics

- Ping test
- OAM loop-back test
- DELT test for ADSL2+

#### Management MIB

- ADSL MIBs
  - RFC 2662 (ADSL Line MIB)

- RFC 3440 (ADSL Line Extension MIB)
- ITU-G 997.1 (DSL Transceivers MIB)
- ATM MIBs
  - RFC 2515
  - RFC 2514
- Packet MIBs:
  - RFC 1213 (MIB-II)
  - RFC 1493 (Bridge MIB)
  - RFC 2233 (IF-MIB)
  - RFC 2674 (Bridge Extension - 801.1d and 801.1q)
  - RFC 1757 (RMON1MIB - groups 1, 2, 3, 9)
  - RFC 2863 (Interfaces Group MIB using SMIv2)
  - RFC 2665 (Ethernet-like interfaces MIB)

### Hardware:

#### Dimensions

- Height: 1.75 inches (1U)
- Width: 17 inches, exclude ear bracket; 19 inches or 23 inches, include ear bracket
- Depth: 15.4 inches (39.2 cm)

#### Weight

- With Splitter: 4.5 Kg, Without Splitter: 4 Kg

#### Console interface

- RS-232 Female DB-9

#### Management access

- Gigabit Ethernet uplink in-band management

#### Power requirements

- VAC: 100 ~ 250V (50 ~ 60 Hz)
- VDC: -36 ~ -72V (nominal 48V)
- Power Consumption: 82 Watt

#### Acoustic noise

- 25 dB at normal fan speed

#### Backplane Switching

- Network uplink interface to Network uplink interface: 1 Gbps per port

#### Throughput

- Network uplink interface to ADSL Access interface: minimum 16 Mbps per port

#### Network uplink interface

- 2 x RJ-45 Gigabit Ethernet (10/100/1000 Base-T)

#### Maximum Stacking

- 4 units

#### ADSL Subscriber interface

- 48 ports (2 x RJ-21 Connectors on backplane)

#### ADSL Standards support

- ANSI T1.413
- ITU-T G.992.1, (G.dmt) Annex A
- ITU-T G.992.2, (G.lite) Annex A
- ITU-T G.992.3 (ADSL2) Annex A
- ITU-T G.992.5 (ADSL2+) Annex A
- ITU-T G.992.5 (ADSL2+) Annex L
- ITU-T G.992.5 (ADSL2+) Annex M

#### ADSL Data rate

- Upstream: multiples from 32 kbps to 1472 kbps
- Downstream: multiples from 64 kbps to 28000 kbps

#### ATM Protocol

- RFC 2684 (Multiple Protocol over AAL5)

#### Safety Certifications

- FCC part 68 class A
- FCC part 15 class A
- CE class A
- VCCI class A (Planned)
- UL1950 (Planned)
- CSA C22.2 No. 950 (Planned)
- EN60950, EN41003, EN55022 Class A (Planned)



IP DSLAM 48 ports

© 2000, QuickTel. All Rights Reserved. QuickTel and the QuickTel logo are registered trademarks of QuickTel. All other trademarks are owned by their respective owners. Although QuickTel strives for accuracy in all its publications, this material may contain errors or omissions and is subject to change without notice. QuickTel shall not be liable for any special, indirect, incidental or consequential damages as a result of its use.

### General Information

The Egyptian Telephone Co.  
(QuickTel)  
Corniche El Nile, Massara  
Helwan, Cairo, Egypt 11743  
+202 2323-0099 / 2323-0000  
International: +202 2323-0052

www.quicktel.net

**QUICKTEL**