



## VDSL 8-Port CO Module

### “HOPE”



#### Introduction

The Metanoia Communications **HOPE** is a VDSL module with one Ethernet port (on 1 RJ-45 connector) and eight VDSL ports (RJ-11 connector or BNC connector). The module is a DSLAM (Digital Subscriber Line Access Multiplexer) accommodating well proven Ethernet and VDSL technologies to extend Ethernet over single-pair phone line by using a VDSL signal. Up to 100/60 Mbps transition bandwidth within 300m and 40/10 Mbps for 1km long range connections provide ultra-high performance to the pervasive telephone line network, and it has the advantage of minimum installation time and minimum installation expense by allowing video streaming and data to share the same telephone line without interference.

The Metanoia Communications LRE solution, including the CO (Central Office) site module HOPE and CPE (Customer Premise Equipment) site module AERO, delivers everything which needed to quickly deploy a high-speed IP-based network for providing high-speed Internet access, video-on demand services, and voice services. The HOPE provides a Gigabit Ethernet Uplink Port connects to a Router or Ethernet switch and acts as the bridge to the Internet for end-users connected through the HOPE's 8 VDSL ports. The HOPE also features build-in POTS/ISDN splitters which fits most popular standards worldwide (including US, EU, Japan and China), so the VDSL service can share the existing phone line with the end-users' POTS/ISDN telephone line service, thus reducing cost and overall wiring requirements.

The HOPE CO device can be easily configured through either web-based management software or linux command line interface. The intelligent web-based management software allows for streamlined configuration of the HOPE, as well as AERO CPE devices through a single IP address. The HOPE can be configured on a per-link basis for transmission mode, rate limitations, and signal-to-noise (SNR) margin.

The HOPE module provides comprehensive hardware diagnostics and is easy to maintain. The HOPE module is designed to build in to a 1U rack- unit. The resulting compact, cost-effective form factor offers an attractive LRE solution for system integrators, small business and building owners.

#### Features

- ◆ Gigabit Ethernet for uplink
- ◆ 8 full-duplex VDSL links via RJ-11/BNC connectors
- ◆ 8 corresponding POTS/ISDN lines via RJ-11 connectors
- ◆ Build-in POTS/ISDN worldwide standard splitter for each VDSL port
- ◆ L2 & L3 QoS Management via web-base interface
- ◆ Bandwidth control supported
- ◆ VLAN isolation supported
- ◆ DHCP server/ DHCP client/Static IP
- ◆ NTP client
- ◆ Firewall/ACL supported
- ◆ VDSL MIB support through WEB interface
- ◆ SNMP supported
- ◆ Supports VDSL MIB RFC-3728 standard
- ◆ Supports VDSL MCM MIB RFC-4070 standard
- ◆ Supports MIB: IP, IF, TCP, UDP, SNMP v2, TCP/IP, Ethernet
- ◆ Supports remote system management through SSH
- ◆ Web firmware/system upgrade
- ◆ Utility to management multiple devices
- ◆ Compact 1U rack mount design
- ◆ Compliant with ETSI, ITU and ANSI standards

#### Specifications

- ◆ Board dimension: 208mm x 320 mm
- ◆ Power supply: DC 5 Volt over power header.
- ◆ Power consumption: 30 Watt maximum.
- ◆ Interface: RJ-11 female Phone Jack RJ-45 female Ethernet jack
- ◆ WAN: Full Gigabit Ethernet support with auto MDX.
- ◆ Splitter: Fit for most common standard (US, EU, Japan, China)
- ◆ Standard: Full ITU-T G.993.1 (VDSL) and G.997.1 compatible.
- ◆ Pass EMI: FCC-B, VCCI-A
- ◆ Surge protection K21/K20 4KV
- ◆ Operation temperature : -20 – 60 C

## Performance

