

## VDSL2 CPE Module and Industry Control Module “AWARD+”



### Introduction

The Metanoia Communications **AWARD+** is a Long Reach Ethernet (LRE) module with four Ethernet ports (on 1 RJ-45 connector) and one VDSL port (on RJ-11 connector or BNC connector). **AWARD+** allows users to configure far end industrial devices by RS232/485 serial port or DI/DO. Up to 100/60 Mbps transmission 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 advantages of minimum installation time and minimum installation expense by allowing video streaming and data to share the same telephone line without interference.

The AWARD CPE 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 AWARD, as well as AERO CPE devices through a single IP address. The **AWARD+** can be configured for L2 and L3 QoS, transmission mode, rate limitations, and SNR (signal-to-noise) margin. SNMP MIB query is supported. The **AWARD+** also provides serial port control function for industrial deployment. One RS232/485 port and eight DI/DO connectors are built on the **AWARD+** device. Metanoia offers a total solution to industrial customers with integrated networking functions and serial port controls.

The Metanoia Communications LRE solution including the CO (Central Office) site module HOPE and CPE (Customer Premise Equipment) site module AWARD (or AERO) delivers everything which needed to quickly deploy a high-speed IP-based network for providing high-speed Internet access and video-on demand services, and voice services. The resulting compact, cost-effective form factor offers an attractive LRE solution for system integrators, small business and building owners.

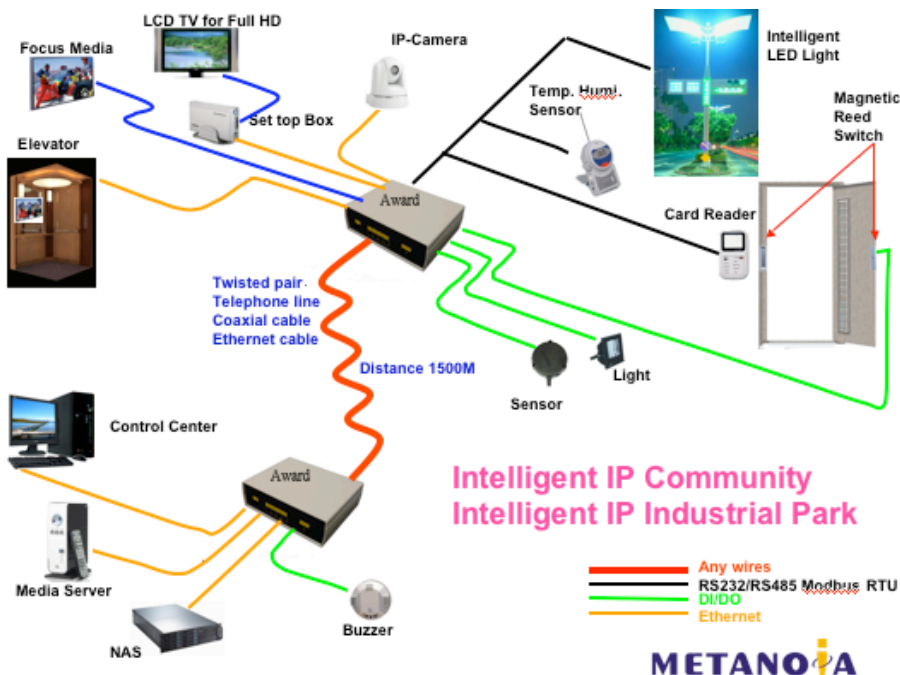
### Features

- ◆ 1 full-duplex VDSL links via RJ-11/BNC connectors
- ◆ 1 corresponding POTS/ISDN lines via RJ-11 connectors
- ◆ 4-port 100MB switch for Ethernet use
- ◆ Hardware L2, L3, L4 QOS Management with 4 priority queue via web-base interface
- ◆ TX/RX 64k based bandwidth control
- ◆ VLAN isolation supported
- ◆ Configurable Bridge/Routing mode
- ◆ Wire speed bridge/routing mode
- ◆ DHCP server/ DHCP client/Static IP
- ◆ Port forward supported
- ◆ NTP client
- ◆ Firewall/ACL supported
- ◆ Optional software L7 QOS supported
- ◆ 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
- ◆ Utility to management multiple devices
- ◆ Compliant with ETSI, ITU and ANSI standards
- ◆ Web firmware/system upgrade
- ◆ Internal Watch Dog
- ◆ Control module:
  - RS232/RS485 converter
  - Multi-To-Multi host GPIO/RS485
  - Digital I/O 8 channel, DI/DO can be setup
  - Embedded RS485 terminate Resister
  - Speed: 300bps ~ 230.4kbps
  - Parity: None, Odd, Even
  - Data Bit: 7, 8
  - Stop Bit: 1, 2
  - Flow control, RTS/CTS, DTR/DSR, XON/XOFF
  - Provide SDK, VB/VC sample code
  - MODBUS TCP and RTU/ASCII converter
  - Web-Based Open Source SCADA

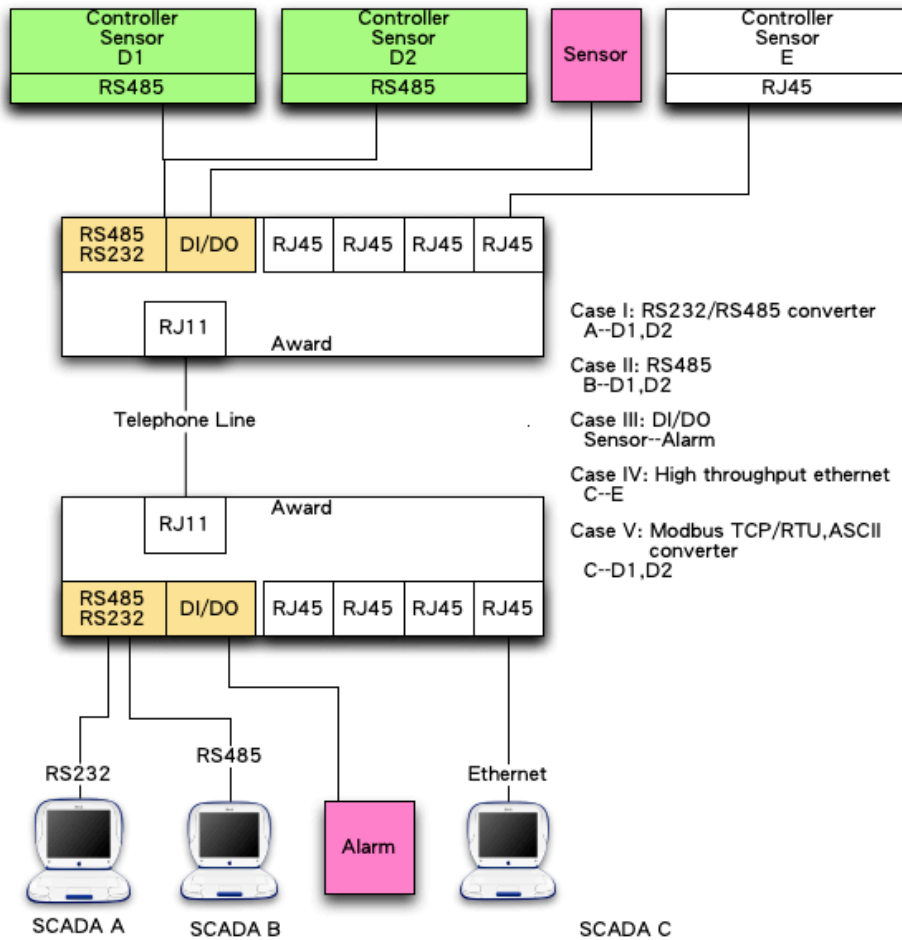
## Specifications

- ◆ Power supply: DC 9 Volt over 3.5mm DC jack.
- ◆ Power consumption: 6 Watt maximum.
- ◆ Interface: RJ-11 female Phone Jack  
RJ-45 female Ethernet jack
- ◆ WAN: Full 10/100 Ethernet support with auto MDX.
- ◆ 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
- ◆ Interface:
  - RJ-11 female Phone jack
  - RJ-45 female Ethernet jack
  - RS-232 female DV9 connector
  - RS-485 through two Terminal Blocks
  - 8 DI/DO Terminal Blocks

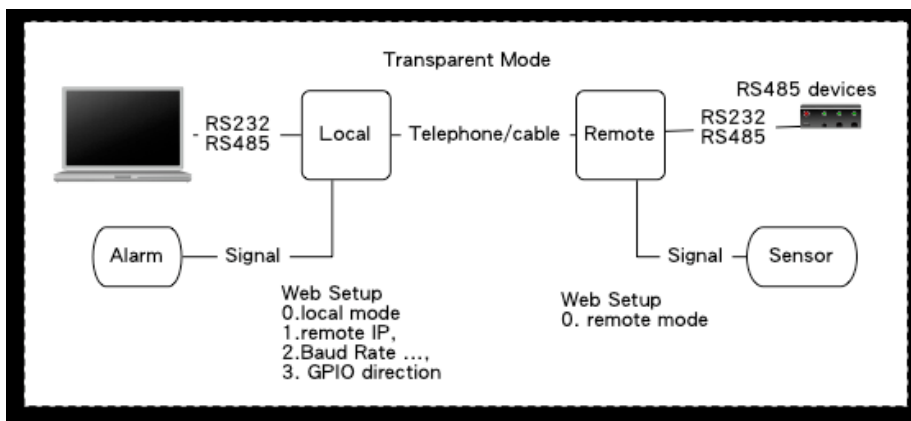
## RS485 Application with Award+ supported



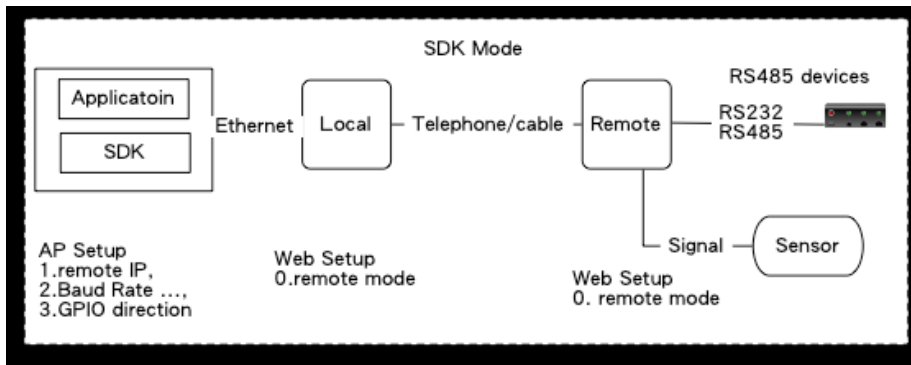
## RS232 / RS485 / DI/DO Deploy Diagram



## Transparent mode



## SDK mode



## MOSBUS mode

