



Features

- MPEG-TS with MPE DSM-CC
- DVB-MPE (Multi Protocol Encapsulation)
- 4x 10/100/1000 Base-T
- 2x MPEG Multiplexer ASI Inputs + 2x MPEG Multiplexer ASI Outputs + 2x Demodulator 1 ASI outputs + 2x Demodulator 2 ASI outputs
- De-Encapsulation of IP over MPEG/MPE traffic up to 80000 packets/sec with input Transport stream data rate up to 155Mbps
- Default promiscuous mode accepts all PID traffic
- Efficient bandwidth utilization via Section Packing and opportunistic data insertion
- Multicast traffic forwarding
- Performance monitoring and statistics via M&C Ethernet Port and Serial port and MIB
- Input and output alarm support
- VLAN support
- Routing:
 - Static
 - Dynamic (RIP v2, OSPF v2)
- Services:
 - DHCP client, server
 - NAT
 - CDP (Cisco Discovery Protocol)
 - AAA (Authentication, Authorization and Accounting):
 - o Local users
 - o RADIUS, TACACS+
- Packets filtering (firewall): level 2 and 3
- IP tunneling (IP over IP, GRE)

With Transport Stream Forwarding

- Ability to Multiplex:
 - Prioritized MPEG-TS from ASI Input (1 and/or 2)
 - Opportunistic filling: MPE packets will replace idle MPEG-TS packets.
- Multi-TS
 - PID-Filtering on ASI Inputs
- Static PID re-mapping for support of multiple transport streams
- Redundancy:
 - 1:1 Redundancy support with automatic switchover
 - Input and output alarm support
 - Multiplex ASI Input where Configurable PID (Heartbeat) is present (default PID 40)

Overview

Advantech Wireless' I-RDR Integrated Receiver De-Encapsulator (I-RDR) is a state of the art, embedded, efficient and reliable solution for IP data and video reception through DVB and ATSC-based networks, supporting bit rates of up to 155Mbps. The I-RDR provides the link between broadband networks and IP, de-encapsulating of an MPEG-2 transport stream or DVB-MPE that is supplied by Demodulator from reception over the satellite, cable or terrestrial networks into IP packets to its Ethernet interface. The I-RDR complies with MPEG and DVB standards including DVB-S2 (EN 302307) satellite demodulation, with support for CCM/VCM/ACM.

The I-RDR includes a powerful and flexible multiplexer functionality. This feature provides for the multiplexing of up to two ASI streams, in addition to the de-encapsulated MPEG/MPE transport stream. Furthermore, each ASI input can be assigned a priority level, to ensure that higher priority streams are protected in the case of congestion. A heartbeat detection function, with a user definable PID, can also be enabled in order select the active stream from the two ASI inputs. This combined set of functionality provides an ideal solution.

The I-RDR includes 2 ASI outputs that can forward raw MPEG/MPE transport stream directly from its demodulator or forward MPEG/MPE transport stream from its MPEG multiplexer output, this feature enable the user monitoring option for its MPEG-TS reception.

The I-RDR embedded demodulator provides 3 ASI outputs that may multiplex 3 base-band streams based upon DVB-S2 Input Stream Identifier (ISI).

The I-RDR support of section packing and Flexible bandwidth allocation techniques including minimum guaranteed bandwidth, maximum peak bandwidth and priorities per route allow the operator full control over their provision of QoS and Service Level Agreements (SLA).

The I-RDR supports robust 1:1 redundancy architecture, and automatic hot switchover capabilities. The I-RDR also supports an alarm interface, providing relay contact closures to a redundancy switch in the case of a detected fault. In addition, an alarm input is provided which can be monitored to force switchover. The I-RDR is managed via an extensive SNMP interface and enhanced CLI. Configurations can be saved, as well as exported and imported, for simplified operations and maintenance.

The performance benefits, features and reliability of the I-RDR make it the ideal solution for a wide range of video and data reception systems, including VSAT hubs, enterprise networks and government communications.

Performance Specifications

Interfaces:

Demodulator Interfaces:

2x L-Band
3x ASI Output on BNC (f) 75 ohms coax
1x 10/100 Base-T Ethernet (Web-Server)

Input Interfaces:

2x ASI inputs on BNC (f) 75 ohms coax
4x 10/100/1000 Base-T Ethernet (one for M&C)
Relay closure input (normally closed)

Output Interfaces:

Mirrored 2x ASI outputs on BNC (f) 75 ohms coax
Relay closure output

Performance:

Demodulator Throughput

Up to 155Mbps (DVB-S2 QPSK up to 32 APSK)

Data Throughput

Up to 155Mbps

IP Packet Throughput

80,000 PPS

of PIDS Supported

8192 (13 bits)

Support For:

SNMP: MIB II

IGMP: Version 2

Output Data Format: MPE DSM-CC

DVB-S2 CCM & VCM & ACM Compatible: Yes

Physical and Power Specifications:

Dimensions:

1RU standalone chassis,
19W X 12.5D X 1.75H inches
(48W X 31.8D X 4.4H cms)

Weight:

8.8lbs / 4kgs

Power:

100 – 245VAC (50/60Hz)

Power consumption:

<10Watts

Operating temp:

0°C to 50°C (32°F to 122°F)

Storage temp:

-25°C to 85°C (-13°F to 185°F)

Relative humidity:

Operating: Up to 90% non-condensing
Non-Operating: Up to 95% non-condensing

Altitude:

Operating: up to 10,000' (3,045M)
During Transit: up to 40,000' (12,180M)

Monitor and Control:

Demodulator Web Server

Advanced CLI

Alarm Logs and Relays

Extensive Statistics

SNMP v1, v2 supported

Exportable/Importable Configurations

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