

DR5000

SpectraCast Integrated Receiver Decoder



OVERVIEW

The SpectraCast DR5000 is Comtech EFData's next generation of IP enabled Integrated Receivers and Decoders. Compact and economical, it offers MPEG-2 and DVB-compliant decoding and demultiplexing of data streams for such varied applications as virtual private networking, IP multicasting, fast Internet access, etc.

In conjunction with SpectraCast DTMX 5000 IP Gateway, the DR5000 provides an end-to-end solution for IP networking over satellite. The DR5000 offers small and large subscribers seamless, high-speed, cost-effective IP connectivity for Internet access (bypassing the terrestrial network congestion and delays), real-time multimedia, multicast and other applications.

Together, these products offer the cell-based efficiency required by demanding Internet applications and provide a satellite asymmetric solution that is independent of the back channel.

The DR5000 features variable downstream symbol rates up to 30 Msps. In addition to support for high-speed data communications for TCP and UDP over IP, the DR5000 also supports IP Quality-of-Service (QoS) control. The QoS is based on the subscriber's bandwidth requirements.

The DR5000 connects to the LAN via a 10/100BaseT Ethernet interface. A single DR5000 can serve multiple, simultaneous users on the LAN with various applications - such as Internet, Intranet, IP multicast, VPN, etc. Other applications include multimedia transmission for distance learning and corporate training.

The DR5000 takes an L-band input from either a C- or Ku-band LNB and reconstructs and forwards IP packets destined for the LAN.

Each receiver in the network is individually addressable or may be addressed as part of a group allowing efficient traffic and network management.

FEATURES

- Full transponder operation
- Easy to install and configure
- DVB compliant demodulation and descrambling
- SNMP for network management

APPLICATIONS

- Fast Internet Access
- Intranet
- Virtual private Networking (VPN)
- IP Multicasting
- Real-time streaming
- File distribution



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SPECTRACAST

DR5000

SPECIFICATIONS

RF

Frequency Range	950 to 2150 MHz
RF Level	-65 to -25 dBm
LNB Power And Signaling	14/18 VDC
Switchable	Up to 350 mA, 22KHz
LNB Phase Noise	-57 dBc/Hz @ 1KHz -75 dBc/Hz @ 10KHz -95 dBc/Hz @ 100KHz
Local Oscillator Stability	±1MHz (-30 to +60 °C)
Modulation	QPSK
Symbol Rate	1.5 to 30 Msps
FEC	Concatenated Convolutional Code and Shortened Reed-Solomon (188,204)
Convolutional FEC Rates	1/2, 2/3, 3/4, 5/6, 7/8
Framing	ETS 300.421 EN 301.192 IP Encapsulation
Input Impedance	75 Ohms
Connector	Standard LNB output, F-Type

ETHERNET INTERFACE

Standard Connector	10/100BaseT RJ-45
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DVB - FRAMING

Framing	ETS 300.421 EN 301.192 IP Encapsulation
PID Filtering	Up to 32
MAC Filtering	Unicast MAC address 32 Multicast address
Encryption	DES based

NETWORKING

Traffic Type	Unicast and multicast
Unicast Protocols	IP, TCP, UDP, ICMP, ARP, RARP
Multicast Protocols	IGMP (RFC 1112)
NAT	RFC 1631
Return Path	PPP, RS-232 (Terrestrial/Satellite)

MANAGEMENT

Management	SNMP agent
Management Capabilities	System configuration: Performance Management Fault Management (Alarms)

SOFTWARE/FIRMWARE

Download Protocol	FTP
Local Configuration	EIA-232

PRODUCT CERTIFICATIONS

- CE Mark
- FCC Part 15
- UL

ENVIRONMENT

Temperature - operating	0° to 40° C
Temperature - storage	-20° to 70° C

