INTERNATIONAL DATACASTING

SuperFlex® Pro Audio™ Series

Audio Satellite Receivers

Offering live IP audio decoding plus audio file playout for advanced radio networks, the SuperFlex Pro Audio Series are professional DVB-S/S2 audio receivers with IDC's Datacast XD™ client integrated.

Applications

- Professional radio networks
- Live audio broadcasting (IP and PES)
- Copy split programming
- On-demand broadcast
- Program and commercial insertion

Features

DVB-S or DVB-S2

- IP and PES audio decoding
- Audio file playback
- Two or Four built-in high quality stereo audio decoders
- MPEG-1 Layer II and III
- MPEC-2 AAC
- MPEG-4 AAC (HE and LC)
- HDD for local storage of audio
- Time scheduled programming
- Event scheduled programming
- Playlist support
- 4 Form-C relays/decoder
- 1 AES outputs/decoder
- 1 PAD/ASYNC output/decoder
- Remotely manageable over satellite and/or terrestrial networks
- Production Manager support
- Datacast XD Server support
- Event Manager support
- Net Manager support
- IP cues for automation systems

Options

- Record and Playback - Professional Media Recorder (PMR)
- Livewire by Axia digital output
- Time shifting
- FlexKey decryption*

** Check Availability*

Audio Flexibility

The SuperFlex Pro Audio Series features two models: **SuperFlex Pro Audio** with two audio decoders and **SuperFlex Pro Audio XTR** with four audio decoders. All the decoders have associated relays sufficient for an AM/FM co-location or AM/FM transmitter pair. Each audio decoder is independent of the other allowing maximum flexibility in data rates, codecs and sample rates: MPEG Layer II for existing DVB compatibility or MPEG Layer III or new High-Efficiency Advanced Audio Coding (HE-AAC) for the best audio performance at the lowest bit rate.

Commercial/Program Insertion

The SuperFlex Pro Audio Series is specially designed to allow commercial/program insertion on any channel. Datacast XD client is used to download advertisement files or programs into the receiver via satellite. Copy Split permits real-time triggering of commercials/programming overlays on a receiver by receiver basis and can be done in an event or time scheduled manner.

Enhanced Monitoring and Control

A browser-based status and control GUI allows satellite carrier frequency, data rates, port authorization, audio configuration and other operating functions to be set locally or remotely. Receivers can also be remotely controlled using IDC's Net Manager™ and/or IDC's Production Manager™ via the satellite network, either individually, in groups or globally.

Integrated Hard Drive

A hard drive comes built-in to each receiver. It provides for store-and-forward data storage plus enables the addition of a full suite of standard software modules as well as customer-specific applications.

Headend Management

The SuperFlex Pro Audio Series can be managed at the headend by various IDC products: Production Manager for content management, Datacast XD Server for file transmission, Event Manager™ for synchronized trigger insertion, and Net Manager for network management.

TECHNICAL SPECIFICATIONS—SuperFlex Pro Audio Series

MODEL (*Check Availability)	DESCRIPTION	DVB-S SYMBOL RATE	DVB-S2 SYMBOL RATE	DECRYPTION OPTIONS (*Check Availability)
Pro Audio*	• 2 Audio Decods • 1 Rack Unit • 1 RF Tuner	QPSK: 128 ks/s to 45 MS/s	QPSK/8PSK: 128 ks/s to 45 MS/s *Normal frames 64,800 bits only*	FlexKey decryption (128 AES)* BISS DVB Common Interface CAS
Pro Audio XTR	• 4 Audio Decods • 2 Rack Units • 2 RF Tuners	QPSK: 1 to 45 MS/s	QPSK/8PSK: 1 to 30 MS/s *Normal frames 64,800 bits only*	FlexKey decryption (128 AES)* BISS

AUDIO —TWO OR FOUR DECODERS	
Audio Encoding Types	MPEG-1 Layers II and III MPEG-2 AAC MPEG-4 AAC MPEG-4 AAC LC MPEG-4 AAC-HE v1
Audio Transport Formats	RTP/UDP/IP bit stream and DVB, MPEG-2 PES
Audio Sample Rates	32, 44.21, 48 kHz 16, 22.05, 24 kHz (not all data rates supported)
MPEG Layer 2	32, 48, 56, 64, 80, 96, 112, 128, 160 192, 224, 256, 320, 384 kb/s
MPEG Layer 3	32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 kb/s
AAC (LD and HE)	24-320 kb/s in 8 kb/s steps
Encoding Formats	Discrete stereo, intensity coded stereo (joint stereo), single mono, dual mono
Relays	4x Form-C per decoder
Program Associated Data	1x RS-232 per decoder
Audio Output-Analog	+18 dBu (software adjustable)
Audio Output-Digital	AES
Impedance	<100 ohms (into a high impedance load)
Frequency Response	+/- 0.5 dB (20 Hz to 20 kHz)
THD + N	Better than –70 dB @ 1 kHz
Crosstalk	Better than 85 dB, between decoders
Dynamic Range	Better than 80 dB (A-weighted)
Signal to Noise	Better than 90 dB
RF INPUT	
Frequency Range	950 to 2150 MHz
Frequency Tuning Steps	Synthesized 1 Hz steps
AFC Range (drift tracking)	± 10% Symbol Rate up to ± 2 MHz
Maximum Input Level	-35 to –65 dBm
Connector	Type-F, female
Impedance	75 ohms, unbalanced
LNB DC Power	+ 18 VDC maximum (horizontal polarity), or + 13 VDC at 500 mA (vertical polarity) center conductor positive, short circuit protected
LNB Requirement	• DRO type for high data rates, stability ± 2 MHz maximum • PLL type for low data rates, stability ± 25 kHz maximum
ENVIRONMENTAL CONDITIONS	
Operating Temperature	0° to 45° C (32° to 113° F)
Storage Temperature	-20° to 70° C (-4° to 158° F)
Humidity	Maximum 90% relative, non-condensing

DVB-S MODE	
FEC Type	DVB concatenated, Viterbi Reed-Solomon
Modulation	QPSK 1/2, 2/3, 3/4, 5/6, 7/8
Alpha Factor	0.35
DVS-S2 MODE	
FEC Type	Concatenated, LDPC and BCH QPSK 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9 8PSK 3/5, 2/3, 3/4, 5/6, 8/9 (9/10 for normal blocks only) 16APSK 2/3, 3/4, 4/5, 5/6, 8/9. 9/10 (SFX Pro Audio Only)
Alpha Factor	0.20, 0.25, 0.35
POWER REQUIREMENTS	
Supply Voltage	100 to 240 VAC, +6%, -10%, 50 or 60 Hz
Power Consumption	180 Watts maximum
PHYSICAL PARAMETERS	
Chassis	1RU - Pro Audio 2RU - Pro Audio XTR
Dimensions (H, W, D)	4.5/9.0 cm x 48 cm x 36cm (1.75/3.5 ” x 19” x 14”)
Weight	5.4 - 6.8 kg (12 - 15 lbs.)

International Datacasting Corporation is a technology provider for the world’s premiere broadcasters in radio, television, data and digital cinema. IDC’s products and solutions are in demand for radio and television networks, targeted ad insertion, digital cinema, 3D live events, VOD, and IPTV. IDC is headquartered in Ottawa, Canada, has installations in over 100 countries, and a strong world-wide network of value-added partners and distributors. For more information visit: www.datacast.com.

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