

Hawk

The New - DRD 696 MULTIFORMAT RECEIVER

DRD 696 is a DVB-RECEIVER in a 19" housing (1RU) designed for stand alone operation in professional CATV Headend- and broadcast systems and suitable as well for IP-Networks. This Multiformat B-IRD receives digital TV program streams with encoded MPEG-2 or MPEG-4 data from ASI, L-Band (DVBS/S2)*, DVB-T/T2*, DVB-C*, IP* and transmit it to a MPEG transport stream (ASI, IP).
*) In addition to the standard ASI-Input a frontend can be selected according to customer needs.

Two integrated Common Interfaces (CI) for Conditional Access Modules (CAM) like VIACCESS, CONAX or IRDETO ... allow the decryption of cryptographically secured TV programs. Subsequent to demodulation and

forward error correction (FEC), the MPEG transport stream is available at the electrical ASI and IP outputs. Single- and multi-decryption is performed automatically. The TV program directed through the CAM's will then be available within the data streams in a decrypted form.

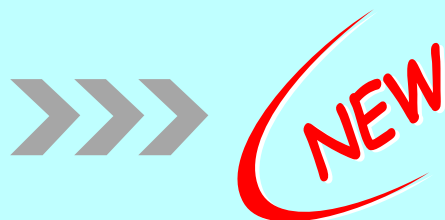
One SFP-Slot for the IP Input and -Output enables the streaming of the transport stream with UDP into IP networks as MPTS and SPTS.

An ASI Test port for the transport stream can be accessed at the frontpanel. Received signal quality and status information are indicated by LEDs and the graphical LC-Display. Basic operation modes and parameters like IP-address are selectable by a

thumb wheel within setup and diagnostic menus, displayed by the LCD module.

Via 10/100BaseT Control-Port connection, an integrated Webserver allows the remote- or local control and configuration over LAN/WAN networks. For the monitoring of the device within a Network Management System (NMS) an SNMP agent is applicable.

A special version of this B-IRD equipped with the dual DVBS2 Frontend allows the receiving of 2 DVB-T Transport streams which are multiplexed into one DVBS2 Transponder and proceed both demultiplexed single TS on separate ASI- and to the IP-output. DirectTV is supported as well.



HAWK - The New

FEATURES

DVB / IP / ASI ASI / IP

- **Input, Output:**
 - ASI-Input
 - IP-Output:
 - GbE electrical (Rj45)
 - Unicast, Multicast, MPTS, SPTS
 - 2 x ASI-Output parallel or
 - 2 x ASI-Output separated (Multistream)
- **Dual DVB-S2 32PSK Frontend:**
 - support of Multistreaming (Annex H2)
 - support for DirecTV (TM)
 - 2nd LNB-Input optional (enabled by Key)
- **Common Interface**
 - 2 Conditional Access Modules (DVB-CI)
 - Supporting of all standard CA Modules
 - Multidecryption incl. Decryption Management System (DMS)
- **Operation/Control**
 - Direct entry by display, Thumb wheel
 - LAN/WAN, Control Port 10/100 RJ45, integrated Web-Server, SNMP-Agent
 - Logbook
- **Provides Monitoring** and Test functions via Control system and Test ports

DVB-FRONTENDS (Option)

DVB MPEG-2/4 TS IP/ASI

- **DVB-S/S2 Demodulator:**
 - Input frequency: 950 ... 2,150 MHz
 - LNB Remote power supply 0V/14V/18V with 22 kHz switching signal (75 Ohm input)
 - DVB-S/S2 Demodulation fully DVB compliant (EN 300421/EN 302307 incl. Annex H2)
 - Suitable for MCPC & SCPC
 - Input F-type connector
 - Modes: QPSK, 8PSK, dual: 16APSK, 32APSK
 - Up to 190 Mbit/s channel bit rate (dual Frontend)
- **DVB-T (T2) Demodulator:**
 - COFDM Demodulation and channel decoding fully DVB compliant (ETS 300 744)
 - 2K- and 8K- Mode with 7 and 8 MHz bandwidth
 - Input frequency: 47 ... 862 MHz
 - F connector: 75 Ohm input
 - DVB-T2 on request
- **DVB-C Demodulator:**
 - Input frequency range: 47 ... 862 MHz
 - QAM Demodulation and channel decoding fully DVB compliant (ETS 300 429)
 - Symbol rates variable from 1.7 ... 7.0 Msymbols/s
 - 16, 32, 64, 128, 256 QAM
 - Data rates up to 51.5 Mbps

Options

IP MPEG-2/4 TS ASI / IP

- **CA-Support:**
 - BISS-Decryption
 - Mode 0, Mode-1, BISS-E
 - NDS License
 - CI + License
- **IP Frontend (Input)**
 - IP Reception of transport streams
 - Encapsulated with UDP, RTP
 - Unicast, Multicast
- **IP Output Streaming**
 - Service Filtering (Grooming)
- **DVB-T2 mode**
 - by License Key
- **SFP-Module:**
 - GbE optical (LC)



DRD 696
Multiformat Receiver

...setting signals

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TECHNICAL DATA

Inputs ASI-Input: Connector, Impedance	BNC, 75 Ohm	Outputs MPEG TS data output Connector, Impedance IP-Output	DVB/ASI (EN 50083-9) 2 x BNC port, 75 Ohm GbE SFP RJ45, MPTS, SPTS
DVB-S/S2 dual Frontend:	acc. EN 300421/EN 302307	Operation/Control LAN/WAN Display, Keypad	RJ 45 10/100 Mbit Direct entry via thumbwheel integrated Web-Server, SNMP-Agent
Input Frequency range Input signal level LNB remote power supply, Selectable Connector, Impedance	950 ... 2,150 MHz -25 ... -65 dBm 0 V/14 V/18 V, 500 mA max., 22 kHz signal, DiSEqC 2.0 75 Ohm Input F-type connector	Monitoring MPEG TS test output Connector, Impedance Log file function	DVB/ASI (EN 50083-9) BNC female, 75 Ohm max. 256 entries
DVB-S: Symbol rates variable Code rates	1 ... 45 MSps 1/2, 2/3, 3/4, 5/6, 7/8	IP Output Streaming Output Format	GbE SFP, electrical RJ45 GbE, UDP, Uni- and Multicast Option: RTP, MPEG pro
DVB-S2: Symbol rates 16APSK Symbol rates 32APSK Code rates FEC Block length	1 ... 47 MSps (Single) 1 ... 38 MSps (Single) 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 16200, 64800	Environment Operating temperature	5 ... 45 °C
DVB-T (T2) (Option)	acc. Bluebook A122	Power Supply Mains voltage	acc. to DIN/VDE 0804 100 ... 240 VAC 50 ... 60 Hz, 0.4 ... 0.22 A
FEC (T) FEC (T2) Modes Guard Interval	Convolutional Coding + Reed Solomon 1/2, 2/3, 3/4, 5/6, 7/8 LPDC + BCH 1/2, 3/5, 2/3, 3/4, 4/5, 5/6 QPSK, 16 QAM, 64 QAM, (256 QAM) 1/4, (19/256), 1/8, (19/128), 1/16, 1/32, (1/128)	Mechanical Housing Dimension (W x H x D)	19" x 1RU 483 mm x 45 mm x 315 mm
DVB-C (Option)	acc. to EN 300 429	OPTIONS: 2nd LNB-Input (Dual 32APSK-Frontend)	to receive an additional FTA-Transponder - or as Input Redundancy - can be enabled by License key
Input frequency range Modulations	47 ... 862 MHz 16, 32, 64, 128, 256 QAM	IP Frontend Input Format	(auto negotiation) GbE SFP, electrical RJ45, optical LC GbE, UDP, Uni- and Multicast Option: RTP, MPEG pro
Signal Processing	Service Filtering Multiplexing: according to customer demands (option)	SFP-Modules	GbE optical (LC) (Option)
Conditional Access	acc. EN 50221 2 x DVB-CI Common Interface: support of all standard CAM	CA-Support BISS	NDS-Licence CI+ Licence Mode 0, Mode-1, BISS-E
Multi-Decryption	Multiservice Descrambling, min 16 PIDs Depending on CAM		

Conditional Access Module

Order-No.	Name	CA-Modul Type
F030.01	DCA 311	Viaccess
F031.01	DCA 312	Irdeto
F032.01	DCA 313	Mediaguard (Seca)
F033.01	DCA 314	Conax
F038.01	DCA 315	Alphacrypt
F034.01	DCA 316	Cryptoworks

Subject to change without notice

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Associated BLANKOM Products

- **B-IRD Family** (DRD 694/695, DRP 393)
- **EQM 100/101/102** EDGE QAM MODULATORS
- **DXP 400** MODULAR HEADEND

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