



NetUP Streamer Base DVB4xC

Administrator's Guide

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NetUP Streamer Base DVB4xC

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Product Introduction

Outline

NetUP Streamer Base DVB4xC is a modular digital television head-end processor. The 1U chassis carries six independent module slots, and each slot is populated according to the task at hand: encoding, decoding, transcoding, multiplexing, descrambling or modulation. Because the modules are chosen per installation, a single chassis covers a wide range of input and output interfaces and signal formats.

Programs received or encoded by the modules are passed to the chassis, combined into the required transport streams and delivered to the RF, ASI and IP outputs. The device is managed entirely over the network through the web interface; there is no local display or keypad.

Main Features

- Modular design: 1U chassis with six slots, freely combined by module type.
- Encoding, decoding, transcoding, multiplexing, descrambling and modulation in one chassis.
- One ASI output, mirroring MPTS 2 of the GE2 port.
- Two GE outputs: up to 512 SPTS over UDP and RTP/RTSP from GE1, up to 8 MPTS over UDP and RTP from GE2; unicast and multicast; RJ45 or SFP.
- Redundant power supply available on request, with or without hot-swap.
- Web management and firmware upgrade over the network.

Chassis Variants

The chassis is supplied in two variants that differ in how transport streams are handled. Unless stated otherwise, this manual describes the base variant.

Parameter	Base variant	Variant A
IP data transport	One-way: GE1 and GE2 are outputs (up to 8 MPTS and 512 SPTS)	Bi-directional: GE1 and GE2 carry IP input and output
Transport streams per module	One TS (MPTS or SPTS) from each module, up to 350 Mbps	Up to 512 TS (MPTS or SPTS) from each module, up to 350 Mbps
Multiplexing	Supported: streams from different modules are multiplexed into a single TS and sent out through one module or through GE1/GE2	Not supported: streams from different modules are combined and sent out through one module or through GE1/GE2 without remultiplexing
Output per module	One MPTS after multiplexing	One or several MPTS/SPTS

Specifications

Parameter	Value
Module slots	6, any combination of module types

Parameter	Value
ASI output	1 (mirror of MPTS 2 on GE2)
IP output	GE1 – up to 512 SPTS over UDP, RTP/RTSP; GE2 – up to 8 MPTS over UDP, RTP; unicast and multicast
GE interfaces	RJ45 and SFP
Management	Web interface, firmware upgrade over the network
Dimensions (W×L×H)	482 × 410 × 44 mm
Operating / storage temperature	0...+45 °C (operating); -20...+80 °C (storage)
Power	AC 110 V ±10%, 50/60 Hz; AC 220 V ±10%, 50/60 Hz
Redundant power supply	Optional, with or without hot-swap

Appearance and Illustration

Front panel:



Element	Description
ASI OUT	ASI transport stream output; carries the same programs as MPTS 2
Reset	Restores the management IP address to the factory default
Power	Power indicator
Run 1–6	Per-slot status indicators; green means the transport stream of the module is normal
Alarm 1–6	Per-slot fault indicators
GE1 / GE2 (SFP)	IP output, optical connectors
GE1 / GE2 (RJ45)	IP output, electrical connectors
NMS	Network management interface; the web interface is reached at this address
CAS	Conditional access system communication interface

Rear panel:



The rear panel is formed by the installed modules themselves, so its appearance depends on the chosen configuration. The illustration shows one possible combination; the power inlet, power switch and grounding screw are always on the left.

Modules

Up to six modules are installed in one chassis and may be mixed and matched freely; module positions are interchangeable. Each module is ordered separately. The sections below list the module types together with the appearance of their rear panels.



Module rear panels are shown to help identify the interfaces. The full ordering information is available from NetUP technical support.

Overview

Module	Inputs	Outputs	Notes
Encoding			
M-ENC-4AV	4× CVBS (DB9) or 4× SDI (BNC)	to chassis	MPEG-2 / H.264, SD
M-ENC-4UHD	4× HDMI or 4× SDI	to chassis	H.265 / H.264, up to 4K
M-ENC-4HDMI	4× HDMI	to chassis	H.265 / H.264, HD
M-ENC-4CVBS	4× CVBS + 4× stereo (DB9)	to chassis	MPEG-2, SD
M-ENC-8CVBS	8× CVBS + 8× stereo (DB15)	to chassis	H.264, SD
M-ENC-2HDMI	2× HDMI + 2× BNC (CC)	to chassis	Encoder or transcoder
M-ENC-2SDI	2× HD-SDI	to chassis	Encoder or transcoder
Tuner and descrambling			
M-2S2CI	2× DVB-S/S2/S2X (F-type)	1 MPTS to chassis	2 CI slots, BISS
M-4TC2CI	4× DVB-C / J.83B / DVB-T/T2 / ISDB-T	1 MPTS to chassis	2 CI slots, BISS with 32 keys
M-4S	4× DVB-S/S2/S2X (F-type)	1 MPTS to chassis	Free-to-air
M-4TC	4× DVB-C / J.83B / DVB-T/T2 / ISDB-T	1 MPTS to chassis	Free-to-air
Multiplexing and switching			
M-MUX-4ASI	4× ASI (bi-directional), 2× GE with 256 IP each	4× ASI, IP	Multiplexing
M-MUX-EAS4	1× ASI (alert source), 256 IP via GE1	4× IP, up to 16 programs each	Emergency alert
M-MUX-EAS8	1× ASI (alert source), 256 IP via GE1	8× IP, up to 8 programs each	Emergency alert
M-MUX-5ASI	5× ASI (bi-directional)	5× ASI	Multiplexing
M-MUX-IP	IP	IP	Demultiplexing
M-SCR-ASI	ASI, IP	ASI, IP	Scrambling, up to 4 simulcrypt CA
M-SW-3ASI	3× ASI	2× ASI (mirrored)	Transport stream switching
Modulation			

Module	Inputs	Outputs	Notes
M-MOD-16C	512 IP + stream connector	16 carriers + 16 IP	DVB-C, up to 4 simulcrypt CA
M-MOD-32C	1024 IP + stream connector	32 carriers + 32 IP	DVB-C, up to 4 simulcrypt CA
M-MOD-48C	1024 IP	48 carriers on 2 RF ports + 48 IP	DVB-C, up to 6 simulcrypt CA
M-MOD-8T	Stream connector	8 carriers + 8 IP	DVB-T
M-MOD-8A	Stream connector	8 carriers + 8 IP	ATSC
M-MOD-6I	32 IP per channel + stream connector	6 carriers + 6 IP	ISDB-Tb
Decoding and transcoding			
M-DEC-2SDI	2× ASI (bi-directional)	2× SDI	Decodes 2 programs simultaneously
M-DEC-4HDMI	8 IP (MPTS/SPTS) via stream connector	4× HDMI	—
M-TRX-2IP	Stream connector	Stream connector	2-channel video and audio transcoding

The sections below describe each group in detail.

Encoding Modules

NetUP Streamer Base M-ENC-4AV – 4 CVBS or 4 SDI inputs



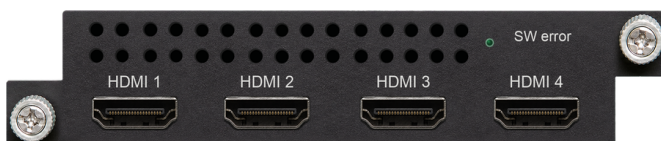
CVBS version – four CVBS inputs on a DB9 breakout



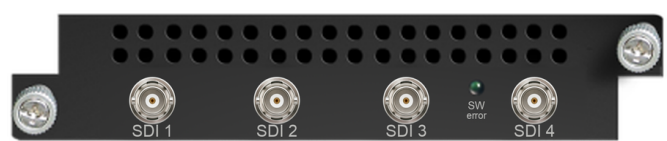
SDI version – four SDI inputs on BNC connectors

Four CVBS inputs (DB9 to RCA breakout) or four SDI inputs (BNC), MPEG-2 and MPEG-4 AVC/H.264, standard definition. Input 720×576@50i or 720×480@60i; the output resolution can be scaled down to 160×90. Rate control CBR/VBR; GOP structure IPPP, IBPBP, IBBBP, IBBBP; video bit rate 0.5–5 Mbps. Audio: MPEG-1 Layer 2, LC-AAC, HE-AAC; 48 kHz; 48–384 kbps per channel. Logo, caption and QR code insertion are supported.

NetUP Streamer Base M-ENC-4UHD – 4 HDMI/SDI inputs, up to 4K



HDMI version – four HDMI inputs



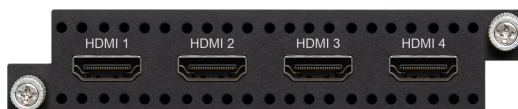
SDI version – four SDI inputs

Four HDMI (1.4, HDCP 1.4) or SDI inputs with HEVC/H.265 and MPEG-4 AVC/H.264 encoding. Resolutions: 3840×2160_30P/29.97P (two channels per module with H.265, one with H.264), 1920×1080_60/59.94/50P (four

channels with H.265, two with H.264), 1280×720_60/59.94/50P (four channels with either codec). Interlaced 1920×1080 input is encoded as progressive output. Chroma 4:2:0; bit rate 0.5–20 Mbps per channel; CBR/VBR; GOP IBBP, IPPP. Audio: MPEG-1 Layer 2, LC-AAC, HE-AAC, HE-AAC v2, AC3 pass-through; 48 kHz; audio gain 0–255.

NetUP Streamer Base M-ENC-4HDMI – 4 HDMI inputs

Four HDMI (1.4, HDCP 1.4) inputs with HEVC/H.265 and MPEG-4 AVC/H.264 encoding; an H.265-only version is available. Resolutions 1920×1080_60/59.94/50P and 1280×720_60/59.94/50P; interlaced input is encoded as progressive output. Chroma 4:2:0; bit rate 0.5–20 Mbps per channel with H.265 and 4–20 Mbps with H.264; CBR/VBR; GOP IBBP, IPPP. Audio as for M-ENC-4UHD. Logo and QR code insertion are available as an order option.



NetUP Streamer Base M-ENC-4CVBS – 4 CVBS inputs

Four CVBS video inputs and four stereo audio inputs (DB9 to RCA breakout), MPEG-2 encoding, 4:2:0. PAL and NTSC standard-definition signals; input resolutions from 720×576_50i and 720×480_60i down to 176×144_50i. GOP structure IP, IBP, IBBP, IBBBBP; video bit rate 0.5–8 Mbps per channel; closed captions supported. Audio: MPEG-1 Layer 2 and Dolby Digital AC3 (2.0); 48 kHz, 24-bit; 128–384 kbps per channel. Logo, caption and QR code insertion are supported on one version of the module.



NetUP Streamer Base M-ENC-8CVBS – 8 CVBS inputs

Eight CVBS video inputs and eight stereo audio inputs (DB15 to RCA breakout), MPEG-4 AVC/H.264 encoding. PAL and NTSC standard-definition signals, 720×576i and 720×480i; CBR/VBR; GOP structure IPP; video bit rate 1–7 Mbps per channel. Audio: MPEG-1 Layer 2; 48 kHz, 24-bit; 64–384 kbps per channel. Logo, caption and QR code insertion are supported.



NetUP Streamer Base M-ENC-2HDMI – 2 HDMI inputs, encoding and transcoding

Two HDMI inputs and two BNC inputs for closed captions, plus the internal stream connector. MPEG-2 and MPEG-4 AVC/H.264 encoding; input 1920×1080_60P/50P, 1920×1080_60i/50i, 1280×720_60p/50P, 720×480_60i, 720×576_50i. CBR/VBR; aspect ratio 16:9 or 4:3; video bit rate 0.8–19 Mbps. Audio: MPEG-1 Layer II, MPEG-2 AAC, MPEG-4 AAC, Dolby Digital AC3 (2.0) encoding as an option, AC3 (2.0/5.1) pass-through; 48 kHz; 64–320 kbps per channel. Transcoding: two HD services from MPEG-2 or H.264 to MPEG-2 or H.264 (HD or SD), or four SD services; audio transcoding between MPEG-1 Layer 2, AAC and AC3 in any direction.



NetUP Streamer Base M-ENC-2SDI – 2 HD-SDI inputs, encoding and transcoding

Two HD-SDI inputs and the internal stream connector. Encoding, transcoding and audio parameters match M-ENC-2HDMI.



Tuner and Descrambling Modules

NetUP Streamer Base M-2S2CI – 2 DVB-S/S2/S2X inputs + 2 CI

Two tuner inputs (F-type) and two independent CI slots; one MPTS is passed to the chassis for remultiplexing. DVB-S, DVB-S2 and DVB-S2X; input 950–2150 MHz; symbol rate up to 45 Msps (up to 40 Msps for 8APSK and 32APSK); signal level –65...–25 dBm; DiSEqC supported. Up to 256 output PIDs with automatic or manual PID remapping, accurate PCR adjustment and automatic PSI/SI generation. Descrambling: two CAM/CI modules, and BISS Mode 1 / Mode E up to 120 Mbps as an order option.



NetUP Streamer Base M-4TC2CI – 4 DVB-C/T/T2/ISDB-T inputs + 2 CI

Four frequencies (each RF input locks two frequencies), F-type, with two independent CI slots; one MPTS is passed to the chassis for remultiplexing. Switchable between DVB-C (J.83 A/C), J.83B, DVB-T, DVB-T2 and ISDB-T. DVB-C: 60–890 MHz, symbol rate 1000–9000 ksps, 16/32/64/128/256-QAM (64/256-QAM for J.83B). DVB-T/T2: 60–890 MHz, bandwidth 5/6/7/8 MHz, PLP supported for DVB-T2. Up to 256 output PIDs; descrambling with two CAM/CI modules and BISS Mode 1 / Mode E with 32 keys.



NetUP Streamer Base M-4S – 4 DVB-S/S2/S2X inputs, FTA

Four tuner inputs (F-type) for free-to-air reception; one MPTS is passed to the chassis for remultiplexing. DVB-S, DVB-S2 and DVB-S2X; input 950–2150 MHz; symbol rate up to 45 Msps; signal level –65...–25 dBm; DiSEqC supported. Up to 256 output PIDs with PID remapping, accurate PCR adjustment and automatic PSI/SI generation.



NetUP Streamer Base M-4TC – 4 DVB-C/T/T2/ISDB-T inputs, FTA

Four tuner inputs (F-type) for free-to-air reception, switchable between DVB-C (J.83 A/C), J.83B, DVB-T, DVB-T2 and ISDB-T; input 60–890 MHz. The module has no output ports of its own and is always used together with another module.



Multiplexing and Switching Modules

NetUP Streamer Base M-MUX-4ASI – 4 ASI + 2 GE multiplexer

Four bi-directional ASI ports, each configurable as an input or an output, and two GE ports supporting 256 IP inputs each.



NetUP Streamer Base M-MUX-EAS4 / M-MUX-EAS8 – emergency alert multiplexer

One ASI input used as the emergency alert source and 256 IP inputs through the GE1 port (100/1000M). M-MUX-EAS4 provides four IP outputs with up to 16 programs each; M-MUX-EAS8 provides eight IP outputs with up to 8 programs each. The alert source may be the ASI input or the 256th IP input; both must be SPTS and cannot be multiplexed.



NetUP Streamer Base M-MUX-5ASI – 5 ASI multiplexer

Five bi-directional ASI ports, each configurable as an input or an output.



NetUP Streamer Base M-MUX-IP – IP demultiplexer

Demultiplexes IP transport streams received by the chassis.



NetUP Streamer Base M-SCR-ASI – ASI/IP multiplexer-scrambler

Multiplexing with scrambling for up to four simulcrypt CA systems, compliant with ETR 289, ETSI TS 101 197 and ETSI TS 103 197.



NetUP Streamer Base M-SW-3ASI – ASI transport stream switch

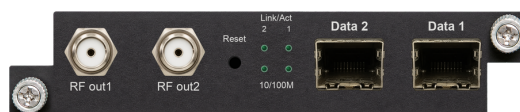
Three ASI inputs and two mirrored ASI outputs for transport stream switching.



Modulating Modules

NetUP Streamer Base M-MOD-16C / M-MOD-32C — 16 or 32 DVB-C carriers

Data input: 512 or 1024 IP inputs over UDP and RTP, unicast and multicast, through two GE ports (RJ45 or SFP), plus the internal stream connector. Data output: 16 or 32 IP outputs over UDP, RTP/RTSP. RF output: 16 or 32 channels of multiplexing, scrambling and modulation. Scrambling for up to four simulcrypt CA systems (ETR 289, ETSI TS 101 197, ETSI TS 103 197). Modulation to EN 300 429 / ITU-T J.83 A/B/C; MER $\geq$ 40 dB; RF 50–960 MHz with 1 kHz step; symbol rate 3600–7000 ksps. Constellations: J.83A — 16/32/64/128/256-QAM, 8 MHz; J.83B and J.83C — 64/256-QAM, 6 MHz. Up to 256 output PIDs per channel.



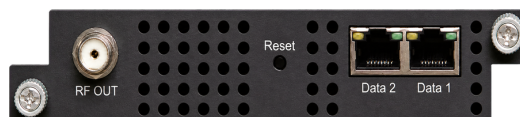
NetUP Streamer Base M-MOD-48C — 48 DVB-C carriers

Data input: 1024 IP inputs over UDP and RTP through two GE ports (RJ45 or SFP). Data output: 48 IP outputs over UDP, RTP/RTSP; up to 840 Mbps per GE port; GE1 carries outputs 1–24 and GE2 outputs 25–48. RF output: two F-type ports for 48 non-adjacent carriers, 75 Ω ; carriers 1–24 through RF1 and 25–48 through RF2, each port covering 384 MHz. Scrambling for up to six simulcrypt CA systems. Modulation, MER, frequency range and constellations as for M-MOD-16C / M-MOD-32C.



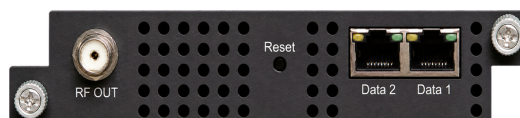
NetUP Streamer Base M-MOD-8T — 8 DVB-T carriers

Eight DVB-T carriers, modulation to ETSI EN 300 744; MER $\geq$ 40 dB. Data output: 8 IP outputs over UDP, RTP/RTSP through two GE ports.



NetUP Streamer Base M-MOD-8A — 8 ATSC carriers

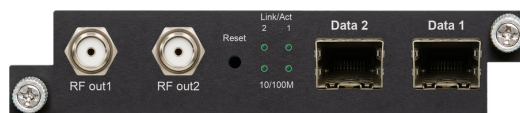
Eight ATSC carriers; the module is otherwise identical to M-MOD-8T.



NetUP Streamer Base M-MOD-6I — 6 ISDB-Tb carriers

Data input: up to 32 IP inputs per channel over UDP and RTP through two GE ports (RJ45 or SFP), plus the internal

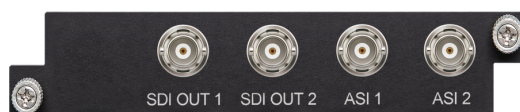
stream connector. Data output: 6 IP outputs over UDP, RTP/RTSP. RF output: six channels of multiplexing and modulation.



Decoding and Transcoding Modules

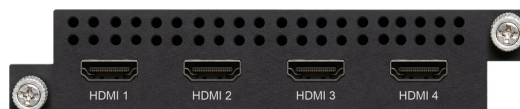
NetUP Streamer Base M-DEC-2SDI – 2 HD-SDI decoder

Two ASI ports, each configurable as an input or an output, and two SDI outputs. The module decodes up to two programs simultaneously.



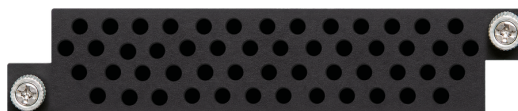
NetUP Streamer Base M-DEC-4HDMI – 4 HDMI decoder

Eight IP inputs (MPTS or SPTS) over UDP through the internal stream connector, and four HDMI outputs.



NetUP Streamer Base M-TRX-2IP – 2-channel IP transcoder

Video and audio transcoding on two channels. The module has no input or output ports of its own and is always used together with another module; streams are exchanged through the internal stream connector.



Installation Guide

Acquisition Check

When unpacking the device, check the contents against the packing list. The package should normally include:

- Head-end processor
- Power cord

If any item is missing or does not match the list, contact your local dealer.

Installation Preparation

Follow the steps below when installing the device. This chapter covers:

- checking the device for missing parts or transport damage;
- preparing the installation environment;
- installing the head-end processor;
- connecting signal cables;
- connecting the communication port (if required).

Environment Requirements

Item	Requirement
Machine hall space	When installing a machine-frame array in a single hall, the distance between two rows of frames should be 1.2–1.5 m, and the distance to the wall no less than 0.8 m.
Machine hall floor	Electrically isolated and dust-free. Volume resistivity of the anti-static floor material: $1 \times 10^7 - 1 \times 10^{10} \Omega$; grounding current-limiting resistance: 1 M Ω . Floor load capacity should exceed 450 kg/m ² .
Ambient temperature	5–40 °C (sustained), 0–45 °C (short term); installing air conditioning is recommended.
Relative humidity	20%–80% sustained, 10%–90% short term.
Pressure	86–105 kPa
Doors and windows	Install rubber strips to seal door gaps and double-glazed windows.
Walls	May be covered with wallpaper or low-gloss paint.
Fire protection	Fire-alarm system and extinguisher.
Power	Device power, air-conditioning power and lighting power must be independent of each other. The device requires AC 220 V $\pm 10\%$ or AC 110 V $\pm 10\%$, 50/60 Hz. Check carefully before powering on.

Grounding Requirements

- Good grounding of all modules is the basis of device reliability and stability and the most important safeguard against lightning and interference. The system must follow this rule.

- The outer conductor and isolation layer of the coaxial cable should maintain proper electrical contact with the metal housing of the device.
- The grounding conductor must be a copper conductor to reduce high-frequency impedance; the grounding wire must be as thick and short as possible.
- Both ends of the grounding wire must be well connected electrically and protected against rust.
- Using any other device as part of the grounding circuit is prohibited.
- The contact area between the grounding wire and the device frame must be no less than 25 mm².

For frame grounding, connect all machine frames to a protective copper strip. Keep the grounding wire as short as possible and avoid loops; the contact area between the grounding wire and the grounding strip must be no less than 25 mm². For device grounding, connect the device's grounding rod to the frame's grounding pole with a copper wire.

Wiring Connection

The power socket is located on the right of the rear panel and the power switch on the left of the front panel. Insert one end of the power cord into the socket and the other end into the AC mains.

When the device is connected to protective ground on its own, use an independent connection. When grounding is shared with other devices, the grounding resistance must be less than 1 Ω .



Before connecting the power cord to the device, set the power switch to "OFF".

Signal cables are connected to the modules installed in the chassis; refer to the module rear panels in the previous chapter. The management computer is connected to the NMS port on the front panel.

Web NMS Operation

The device is configured entirely from the web interface; there is no local display or keypad. Connect the management computer to the NMS port on the front panel.

Login

The factory default IP address is **192.168.0.136**.

1. Connect the computer and the device with a network cable and use the **ping** command to confirm that they are on the same network segment.
2. If the computer IP address is, for example, 192.168.0.252, set the device IP to 192.168.0.xxx (xxx can be 0 to 255, except 252, to avoid an IP conflict).
3. Enter the device IP address in the browser address bar and press Enter.
4. On the login screen, enter the user name and password (default user name **admin**, password **admin**) and press **[LOGIN]**.

If the management IP address is unknown or has been lost, press the Reset button on the front panel to restore it to the factory default.

Status

After login the "Status" page shows the state of the device: software, hardware, web and system versions, product ID and uptime, followed by the module information. The module diagram reflects the modules actually installed, and the indicators below it show the Run and Alarm state of each slot.

DTV Headend Processor

Summary

▶ Status

Parameters

▶ Module 1

▶ Module 2

▶ Module 3

▶ Module 4

▶ Module 5

▶ Module 6

▶ Stream Connect

▶ IP Stream

▶ General

System

▶ Network

▶ Password

▶ Configuration

▶ Firmware

▶ Date | Time

▶ Log

DEVICE INFORMATION

System Information

Software Version:	3.02 Build 257.00 Nov 10 2017
Hardware Version:	0.310.3.7
Web Version:	2.60
System Version:	1.21.1.61
Product ID:	d0040000-00000011-00000000-00000000
Uptime:	0 Day-00:05:34

Module Information

Index:	Mod 1	Mod 2	Mod 3	Mod 4	Mod 5	Mod 6
Run:	●	●	●	●	●	●
Alarm:	●	●	●	●	●	●

A green Run indicator means the transport stream of the module is normal; a red Alarm indicator means the module reports a fault.

Common Controls

Several screens are shared by all modules that multiplex programs. They are described here once and referenced from the module sections below.

Multiplexing Screen

The "Mux" screen is split into three areas: the input area on the left, the operation area in the middle and the output area on the right. Programs are selected in the input area and transferred to the output area, which represents the transport stream leaving the module.

In the input list, "Module export" means the stream is passed to the chassis main board, and "Connector" means the stream comes back from the main board after processing.

The operation area provides the following controls:

- "CA Filter" – enables or disables filtering of conditional-access packets.
- "PID Remap" – enables or disables PID remapping.
- **[Refresh Input]** and **[Refresh Output]** – reload the input and output program information.
- **[=<X>]** – transfer the selected input programs to the output; **[<X>=]** – remove programs from the output.
- **[All Input]** and **[All Output]** – select all programs in the corresponding list.
- **[Parse program]** – parse the input programs; the adjacent field sets the parsing time limit in seconds.

Program Modification

Clicking a program in the output area opens a dialog box where the program information can be edited: service name and provider, program number, logical channel number, PMT, PCR, video and audio PIDs. Enter the new values and click **[Save]** to apply them.

PID Pass

The "PID Pass" screen lists the PIDs that are passed through the module untouched, bypassing the multiplexer. Click the add button to create more rows, enter the PID values and apply the changes.

Module System Page

The "System" screen of a module shows its software and hardware versions and provides the module-level maintenance commands. Firmware files and update instructions are provided by NetUP technical support on request.

Multiplexing Modules

M-MUX-4ASI

The module has four bi-directional ASI ports and two GE ports, each supporting 256 IP inputs.

Click "Input CH" to set the input parameters:

DTV Headend Processor

Summary

Status

Parameters

Module 1

Module 2

Module 3

Module 4

Module 5

Module 6

Stream Connect

IP Stream

General

System

Network

Password

Configuration

Firmware

Log

8:	☒	GE1 IP8	V2	224.2.2.2	4008		0.000 Mbps
9:	☒	GE1 IP9	V2	224.2.2.2	4009		0.000 Mbps
10:	☒	GE1 IP10	V2	224.2.2.2	4010		0.000 Mbps
11:	☒	GE1 IP11	V2	224.2.2.2	4011		0.000 Mbps
12:	☒	GE1 IP12	V2	224.2.2.2	4012		0.000 Mbps
13:	☒	GE1 IP13	V2	224.2.2.2	4013		0.000 Mbps
14:	☒	GE1 IP14	V2	224.2.2.2	4014		0.000 Mbps
15:	☒	GE1 IP15	V2	224.2.2.2	4015		0.000 Mbps
16:	☒	GE1 IP16	V2	224.2.2.2	4016		0.000 Mbps
17:	☒	GE1 IP17	V2	224.2.2.2	4017		0.000 Mbps
18:	☒	GE1 IP18	V2	224.2.2.2	4018		0.000 Mbps
19:	☒	GE1 IP19	V2	224.2.2.2	4019		0.000 Mbps
20:	☒	GE1 IP20	V2	224.2.2.2	4020		0.000 Mbps
21:	☒	GE1 IP21	V2	224.2.2.2	4021		0.000 Mbps
22:	☒	GE1 IP22	V2	224.2.2.2	4022		0.000 Mbps
23:	☒	GE1 IP23	V2	224.2.2.2	4023		0.000 Mbps
24:	☒	GE1 IP24	V2	224.2.2.2	4024		0.000 Mbps
25:	☒	GE1 IP25	V2	224.2.2.2	4025		0.000 Mbps
26:	☒	GE1 IP26	V2	224.2.2.2	4026		0.000 Mbps
27:	☒	GE1 IP27	V2	224.2.2.2	4027		0.000 Mbps
28:	☒	GE1 IP28	V2	224.2.2.2	4028		0.000 Mbps
29:	☒	GE1 IP29	V2	224.2.2.2	4029		0.000 Mbps
30:	☒	GE1 IP30	V2	224.2.2.2	4030		0.000 Mbps
31:	☒	GE1 IP31	V2	224.2.2.2	4031		0.000 Mbps
32:	☒	GE1 IP32	V2	224.2.2.2	4032		0.000 Mbps

Apply

Click "Batch" to set the IP input and general multiplexing parameters for the whole module at once:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

Input CH

Batch

Mux ▾

General ▾

PID Pass ▾

IP Stream

System

IP Input

Multicast



IGMP

V2



Start Port

4000

Range(1-512)

1

32

Apply

Mux

time out(s)

60

Operation Type

Parse program



Mux Select

To Output CH1



Range(1-512)

1

32

Stop

Apply

Click "Mux" to select the programs for the output transport stream. The controls of this screen are described in [Multiplexing Screen](#).

DTV Headend Processor

The screenshot displays the DTV Headend Processor interface. On the left, a sidebar contains a 'Summary' section with a 'Status' link, and a 'Parameters' section with links for Module 1 through Module 6, Stream Connect, IP Stream, and General. Below this is a 'System' section with links for Network, Password, Configuration, Firmware, and Log. The main area shows the 'Mux-Output CH 1' configuration. At the top, there are tabs: 'Input CH', 'Batch', 'Mux-Output CH 1' (selected), 'General', 'PID Pass', and 'IP Stream'. Below the tabs, the 'System' section is visible. The main configuration area is divided into two panes. The left pane shows a list of inputs: 'ASI1 (prog: 0)' [0.0M], 'ASI2 (prog: 0)' [0.0M], 'ASI3 (prog: 0)' [0.0M], 'ASI4 (prog: 0)' [0.0M], and 'Connector (prog: 0)' [0.0M]. The right pane shows the output configuration: 'Output CH 1 (prog: 0)' [0.0/56.0M]. Below the panes, there are buttons for 'Parse program' and a 'time out: 60 seconds' field. On the right side of the main area, there are buttons for 'Refresh Input', 'Refresh Output', 'All Input', and 'All Output'. There are also checkboxes for 'CA Filter' and 'PID Remap'.

Clicking a program in the output area opens the editing dialog (see [Program Modification](#)):

The screenshot displays the DTV Headend Processor interface with the 'Program Information' dialog box open. The dialog box has a title bar 'Program Information' and a 'close' button. It contains the following fields: 'Service Name' (TV-1101), 'Program Number' (32), 'Service Type' (0x01), 'Service Provider' (TV-Provider), 'PMT PID' (0x0020), 'PCR PID' (0x0021), 'MPEG-2 Video PID' (0x0022), and 'MPEG-1 Audio PID' (0x0023). At the bottom of the dialog box are 'Apply' and 'Close' buttons. The background shows the 'STREAM CONNECT' section of the interface, which is dimmed. The sidebar on the left is also visible, with 'Stream Connect' highlighted under the 'Parameters' section.

Click "General" to set the parameters of each output stream:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

Input CH

Batch

Mux ▾

General-Output CH 1 ▾

PID Pass ▾

IP Stream

System

Output Mode:

Mux out ▾

0

(1-517)

Output Bitrate:

56,000

Mbps

Stream

TS ID:

1

ON ID:

1

SDT Insert:

☒

NIT Insert:

☐

TS Pkt Mode:

188 ▾

PAT Interval:

Auto ▾

PMT Interval:

Auto ▾

SDT Interval:

Auto ▾

Apply

Click "PID Pass" to add the PIDs that must pass through (see [PID Pass](#)):

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

Input CH	Batch	Mux	General	PID Pass	IP Stream	System
IP Input						
Multicast	IGMP				Range(1-512)	
☒	v2				1 32	
						Apply
Mux						
time out(s)	Operation Type	Mux Select		Range(1-512)		
60	Parse program	To Output CH1		1 32		
						Stop Apply

The module outputs four transport streams through the two GE ports; each channel on GE1 and GE2 has its own IP address and port. Click "IP Stream" to set the output parameters:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

Input CH

Batch

Mux ▾

General ▾

PID Pass ▾

IP Stream

System

Output Protocol:

UDP ▾

GE1

Enable	Null PKT Filter	Output IP	Port
Output CH1: ☒	☐	224.2.2.2	2400
Output CH2: ☒	☐	224.2.2.2	2401
Output CH3: ☒	☐	224.2.2.2	2402
Output CH4: ☒	☐	224.2.2.2	2403

GE2

Output CH1: ☒	☐	224.2.2.2	2404
Output CH2: ☒	☐	224.2.2.2	2405
Output CH3: ☒	☐	224.2.2.2	2406
Output CH4: ☒	☐	224.2.2.2	2407

Apply

Click "System" to check the module information (see [Module System Page](#)):

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ Module 1
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Connect
- ▶ IP Stream
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Log

Input CH
Batch
Mux ▾
General ▾
PID Pass ▾
IP Stream
System

Module Info.

Software Version:	2.03 Build 100.00 Aug 31 2016	Hardware Version:	2.90
System Version:	01.01.02.04	Module ID:	4

Module Cfg

Factory set
Restore

Firmware

File:

Browse...
No file selected.

Upgrade

M-MUX-EAS4 and M-MUX-EAS8

The module supports one ASI input as the emergency alert source and 256 IP inputs through the GE1 port. M-MUX-EAS4 provides four IP outputs with up to 16 programs each; M-MUX-EAS8 provides eight IP outputs with up to 8 programs each.

Click "EAS" to set the alert parameters. The alert source can be the ASI input or the 256th IP input; both must be SPTS and cannot be multiplexed.

DTV Headend Processor

Summary

Status

Parameters

Module 1

Module 2

Module 3

Module 4

Module 5

Module 6

Stream Switch

General

System

Network

Password

Configuration

Firmware

Date | Time

Log

8 CH EAS MUX MODULE

EAS

Input CH

Batch

Mux

TS Config

PID Pass

IP Stream

System

EAS Switch:

disable

EAS Source:

IP

Protocol:

RTP

IGMP:

ASI

Multicast:

☐

Input IP:

224.2.2.2

EAS TS Lock:

☒

Input Port:

5888

EAS Bitrate:

0.000 Mbps

Apply

Click "Input CH" to set the input parameters; IP input is received over UDP or RTP:

Summary

Status

Parameters

Module 1

Module 2

Module 3

Module 4

Module 5

Module 6

Stream Switch

General

System

Network

Password

Configuration

Firmware

Date | Time

Log

8 CH EAS MUX MODULE

EAS

Input CH

Batch

Mux-Output CH

TS Config

PID Pass

IP Stream

System

GE1 IP1 (prog: 8/9)

[0.0M]

GE1 IP2 (prog: 0/8)

[0.0M]

GE1 IP3 (prog: 0)

[0.0M]

GE1 IP4 (prog: 0)

[0.0M]

GE1 IP5 (prog: 0)

[0.0M]

GE1 IP6 (prog: 0)

[0.0M]

GE1 IP7 (prog: 0)

[0.0M]

GE1 IP8 (prog: 0)

[0.0M]

GE1 IP9 (prog: 0)

[0.0M]

GE1 IP10 (prog: 0)

[0.0M]

GE1 IP11 (prog: 0)

[0.0M]

GE1 IP12 (prog: 0)

[0.0M]

GE1 IP13 (prog: 0)

[0.0M]

GE1 IP14 (prog: 0)

[0.0M]

GE1 IP15 (prog: 0)

[0.0M]

GE1 IP16 (prog: 0)

[0.0M]

GE1 IP17 (prog: 0)

[0.0M]

GE1 IP18 (prog: 0)

[0.0M]

GE1 IP1-32

GE1 IP33-64

GE1 IP65-96

GE1 IP97-128

GE1 IP129-160

GE1 IP161-192

GE1 IP193-224

GE1 IP225-255

Normal

Overflow

Output CH 1 (prog: 8)

[0.3/150.0M]

Parse program

time out: 60 seconds

Click "Batch" to set the IP input and general multiplexing parameters for the whole module:

NetUP Streamer Base DVB4xC

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DTV Headend Processor

Summary

Status

Parameters

Module 1

Module 2

Module 3

Module 4

Module 5

Module 6

Stream Switch

General

System

Network

Password

Configuration

Firmware

Date | Time

Log

8 CH EAS MUX MODULE

EAS

Input CH

Batch

Mux

TS Config

PID Pass

IP Stream

System

IP Input

Multicast

IGMP

Start Port

Range(1-255)

☒

V2

4000

132

Apply

Mux

time out(s)

Operation Type

Mux Select

Range(1-255)

60

Parse program

To Output CH1

132

Stop

Apply

Click "Mux" to select the programs for the output (see [Multiplexing Screen](#)):

DTV Headend Processor

Summary

Parameters

System

► Status

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Switch

► General

► Network

► Password

► Configuration

► Firmware

► Date | Time

► Log

8 CH EAS MUX MODULE

EAS

Input CH

Batch

Mux-Output CH 1 ▾

TS Config ▾

PID Pass ▾

IP Stream

System

→ Lose → Locked

GE1 IP1 (prog: 8/9)

GE1 IP2 (prog: 0/8)

GE1 IP3 (prog: 0)

GE1 IP4 (prog: 0)

GE1 IP5 (prog: 0)

GE1 IP6 (prog: 0)

GE1 IP7 (prog: 0)

GE1 IP8 (prog: 0)

GE1 IP9 (prog: 0)

GE1 IP10 (prog: 0)

GE1 IP11 (prog: 0)

GE1 IP12 (prog: 0)

GE1 IP13 (prog: 0)

GE1 IP14 (prog: 0)

GE1 IP15 (prog: 0)

GE1 IP16 (prog: 0)

GE1 IP17 (prog: 0)

GE1 IP18 (prog: 0)

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

[0.0M]

→ Normal → Overflow

GE1 IP1-32 ▾

GE1 IP1-32

GE1 IP33-64

GE1 IP65-96

GE1 IP97-128

GE1 IP129-160

GE1 IP161-192

GE1 IP193-224

GE1 IP225-255

===>

<===

All Input

All Output

Output CH 1 (prog: 8)

[0.3/150.0M]

Parse program

time out: 60 seconds

Program editing works as described in [Program Modification](#):

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ **Module 1**
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Switch
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Date | Time
- ▶ Log

8 CH EAS MUX MODULE

EAS
Input CH
Batch
Mux-Output CH 1 ▾
TS Config ▾
PID Pass ▾
IP Stream

System

→ Lose → Locked

GE1 IP1 (prog: 8/9) [0.0M]

- 1: ☒ CCTV 2
- 2: ☒ CCTV 7
- 3: ☒ CCTV 10
- 4: ☒ CCTV 11
- 5: ☒ CCTV 12
- 6: ☒ CCTV 15
- 7: ☒ TV-001
- 8: ☒ CCTV 13
- 9: ☐ CCTV 14

GE1 IP2 (prog: 0/8) [0.0M]

GE1 IP3 (prog: 0) [0.0M]

GE1 IP4 (prog: 0) [0.0M]

GE1 IP5 (prog: 0) [0.0M]

GE1 IP6 (prog: 0) [0.0M]

GE1 IP7 (prog: 0) [0.0M]

GE1 IP1-32 ▾

☒ CA Filter

☒ PID Remap

Refresh Input

Refresh Output

===>

<===

All Input

All Output

→ Normal → Overflow

Output CH 1 (prog: 8) [0.3/150.0M]

- 1: ☐ DEXINCCTV 2
- 2: ☐ CCTV 7
- 3: ☐ CCTV 10
- 4: ☐ CCTV 11
- 5: ☐ CCTV 12
- 6: ☐ CCTV 15
- 7: ☐ TV-001
- 8: ☐ CCTV 13

Parse program time out: 60 seconds

The "General", "PID Pass", "IP Stream" and "System" screens follow the same pattern as the other multiplexing modules:

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ **Module 1**
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Switch
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Date | Time
- ▶ Log

8 CH EAS MUX MODULE

EAS
Input CH
Batch
Mux ▾
TS Config-Output CH 1 ▾
PID Pass ▾
IP Stream

System

Output Mode: Mux out ▾

Mux out
Bypass

0 (IP1-IP255)

Output Bitrate: 150.000 Mbps

Stream

TS ID: 1

SDT Insert: ☐

TS Pkt Mode: 188 ▾

PMT Interval: Auto ▾

Modulation Mode: 4

Carrier Frequency: 500 (30.0-1000.0 MHz)

ON ID: 1

NIT Insert: ☐

PAT Interval: Auto ▾

SDT Interval: Auto ▾

VCT Mode: TVCT ▾

VCT Insert: ☒

Apply

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Switch

► General

System

► Network

► Password

► Configuration

► Firmware

► Date | Time

► Log

8 CH EAS MUX MODULE

EAS	Input CH	Batch	Mux	TS Config	PID Pass-Output CH 1	IP Stream
System						
Index	Input Channel	Input PID(0x)	Output PID(0x)			
1	1	0x003f	0x0a00			
2	1	0x0040	0x0b00			

Output CH 1
 Output CH 2
 Output CH 3
 Output CH 4
 Output CH 5
 Output CH 6
 Output CH 7
 Output CH 8

Set Del-All

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Switch

► General

System

► Network

► Password

► Configuration

► Firmware

► Date | Time

► Log

8 CH EAS MUX MODULE

EAS	Input CH	Batch	Mux	TS Config	PID Pass	IP Stream	System
Output Protocol: UDP Service IP: 192.168.68.101 Subnet Mask: 255.255.255.0 Gateway: 192.168.2.0 Mac Address: 201808231636							
GE1							
Enable	Null PKT Filter	Output IP		Port			
Output CH1: ☒	☐	224.2.2.2		2100			
Output CH2: ☐	☐	192.168.68.68		2101			
Output CH3: ☐	☐	192.168.68.68		2102			
Output CH4: ☐	☐	192.168.68.68		2103			
Output CH5: ☐	☐	192.168.68.68		2104			
Output CH6: ☐	☐	192.168.68.68		2105			
Output CH7: ☐	☐	192.168.68.68		5556			
Output CH8: ☒	☐	192.168.68.68		7777			

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Switch

► General

System

► Network

► Password

► Configuration

► Firmware

► Date | Time

► Log

8 CH EAS MUX MODULE

EAS	Input CH	Batch	Mux ▾	TS Config ▾	PID Pass ▾	IP Stream	System
-----	----------	-------	-------	-------------	------------	-----------	--------

Module Info.

Software Version: 04.01.01 100.00 Aug 23 2018 Hardware Version: 01.01.01
 System Version: 01.01.02.04 Module ID: 1

Module Cfg

Factory set

Restore

Firmware

File:

浏览... 未选择文件。

Upgrade

M-MUX-5ASI

The module has five bi-directional ASI ports. Click "In-Out" to set the direction of each port:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

ASI IN-OUT

In-Out	Mux ▾	General ▾	PID Pass ▾	PID Monitor ▾	System
--------	-------	-----------	------------	---------------	--------

ASI 1 Direction: Input ▾

ASI 2 Direction: Input ▾

ASI 3 Direction: Input ▾

ASI 4 Direction: Input ▾

ASI 5 Direction: Input ▾

Apply

Click "Mux" to select the programs for the output. The output channel is chosen from six options: ASI 1 to ASI 5 and

the module export to the chassis.

DTV Headend Processor

Summary

Status

Parameters

Module 1

Module 2

Module 3

Module 4

Module 5

Module 6

Stream Connect

IP Stream

General

System

Network

Password

Configuration

Firmware

Log

ASI IN-OUT

In-Out

Mux-ASI Output 1

General

PID Pass

PID Monitor

System

→ Lose → Locked

→ ASI 1 (prog: 0) [0.0M]

→ ASI 2 (prog: 0) [0.0M]

→ ASI 3 (prog: 0) [0.0M]

→ ASI 4 (prog: 0) [0.0M]

→ ASI 5 (prog: 0) [0.0M]

→ Connector 2 (prog: 0) [0.0M]

☒ CA Filter

☒ PID Remap

Refresh Input

Refresh Output

===>

<===

All Input

All Output

→ Normal → Overflow

→ ASI Output 1 (prog: 0) [0.0/56.0M]

Parse program

time out: 60 seconds

Click "General" to set the parameters of each output stream:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► **Module 2**

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

ASI IN-OUT

In-Out

Mux-mod 2 export

General

PID Pass

PID Monitor

System

⇒ Lose ⇒ Locked

⇒ **ASI 1 (prog: 0)**

⇒ ASI 2 (prog: 0)

⇒ ASI 3 (prog: 0)

⇒ ASI 4 (prog: 0)

⇒ ASI 5 (prog: 0)

⇒ Connector 2 (prog: 0)

Refresh Output

===>

<===

All Input

All Output

⇒ Normal ⇒ Overflow

⇒ mod 2 export (prog: 0) [0.0/56.0M]

Parse program

time out: 60 seconds

Click "PID Pass" to add the PIDs that must pass through:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► **Module 2**

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

ASI IN-OUT

In-OutMuxGeneralPID Pass-ASI Output 1PID MonitorSystem

Index	Input Channel	Input PID(0x)	Output PID(0x)	
1				+

SetDel-All

Click "PID Monitor" to review the PIDs present in the streams:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► **Module 2**

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

ASI IN-OUT

In-Out Mux▼ General▼ PID Pass▼ **PID Monitor-ASI Output 1▼** System

PID Bitrate(Max): %

PID Bitrate(Min): %

Index	PID Type	Output PID PID(0x)	Read Bit(Mbps)	Balance Bit(Mbps)
Set Calc				

Click "System" to check the module information:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► **Module 2**

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

ASI IN-OUT

In-OutMuxGeneralPID PassPID MonitorSystem

Module Info.

Software Version:1.11 Build 100.00 Aug 31 2016Hardware Version:3.10

System Version:01.01.02.04Module ID:2

Module Cfg

Factory setRestore

Firmware

File:

Browse...No file selected.

Upgrade

Encoding Modules

M-ENC-4CVBS

Click "Encoding CH1-CH4" to set the encoding parameters of each channel. The screen shows the video and audio settings together with the status of each channel.

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NetUP Streamer Base DVB4xC

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ **Module 1**
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Connect
- ▶ IP Stream

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Log

4 CHS MPEG2 ENCODER

Enc CH 1	Enc CH 2	Enc CH 3	Enc CH 4	System
Video				
Brightness:	128	(0 ~ 255)	Bitrate:	4.00 Mbps (0.1 ~ 8)
Saturation:	128	(0 ~ 255)	Aspect Ratio:	4:3
Contrast:	128	(0 ~ 255)	Manual Resolution:	☐
Hue:	0	(-128 ~ 127)	Out Resolution:	720x576_50I
Audio				
Format:	MPEG1 Layer2		Bitrate:	256 kbps
Audio Gain:	0	(-12 ~ +40)	Audio Broadcast:	☐
Program				
Program Output:	☒		Service Name:	TV-1101
Service Provider:	TV-Provider		Service Number:	1101
PMT PID:	0x0064		PCR PID:	0x0067
Video PID:	0x0065		Audio PID:	0x0066
Status				
Video Lock:	●		Video Resolution:	720x576 50I
Video Norm:	PAL BGHD		Bitrate:	4.66Mbps

Click **[Apply]** to apply the modified parameters.

Click "System" to check the module information:

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ **Module 1**
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Connect
- ▶ IP Stream

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Log

4 CHS MPEG2 ENCODER

Enc CH 1	Enc CH 2	Enc CH 3	Enc CH 4	System
Module Info.				
Software Version:	0.20 Build 1.15 20160425	Hardware Version:	0.10	
System Version:	0.1	Module ID:	1	
Status Info.				
Valid Bitrate:	18.64Mbps,	Total Bitrate:	65.00Mbps,	

M-ENC-8CVBS

Click "Enc CH 1" to "Enc CH 8" to set the parameters of each encoding channel. A green video lock indicator means a source signal is present at the input.

DTV Headend Processor

Summary

Status

Parameters

Module 1
Module 2
Module 3
Module 4
Module 5
Module 6
Stream Connect
IP Stream
General

System

Network
Password
Configuration
Firmware
Date | Time
Log

ENCODER

Encoder-Enc CH 1

OSD

Firmware

Enc CH 1

Enc CH 2

Enc CH 3

Enc CH 4

Enc CH 5

Enc CH 6

Enc CH 7

Enc CH 8

Video

Bitrate: 10 (1-7 Mbps)
H.264 Profile:
GoP: (25-50)

Rate Mode: CBR
AspectRatio: 4:3
Video Norm: AUTO

Audio

Bitrate: 5 Kbps
Audio Gain: 128 (0 ~ 255)

Program

Program Output: ☒
Service Name: TV-Provider
PMT PID: 0x0064
Video PID: 0x0065

Program Name: TV-5101
Program Number: 5101
PCR PID: 0x0067
Audio PID: 0x0066

Click "OSD" to overlay a logo, a caption or a QR code. The overlay can be set for one encoding channel or applied to all channels at once. A separate tab is used for each overlay type: a logo is uploaded as an image file, a caption is entered as text with the required font, text colour and background colour, and a QR code is either uploaded as an image or generated from a URL.

Click "Firmware" to check the current software, web and system versions and to upgrade the module:

DTV Headend Processor

Summary

Status

Parameters

Module 1
Module 2
Module 3
Module 4
Module 5
Module 6
Stream Connect
IP Stream
General

System

Network
Password
Configuration
Firmware
Date | Time
Log

ENCODER

Encoder

OSD

Firmware

Warning:

1. Upgrade firmware(software and hardware) to get new function, please choose the right firmware to upgrade. If you use a wrong file, the device may not work.
2. Upgrade will keep a long time, please do not turn off the power, otherwise the device will not work.
3. After upgrade, you must reboot device manually.

Current Software Version:

02.08.05 Build 153.01 Dec 13 2017

Web Version:

1.02

System Version:

8.1

select file:

浏览... 未选择文件。

Upgrade

M-ENC-4AV

Click "General" to check the stream parameters:

DTV Headend Processor

Summary

▶ Status

Parameters

▶ Module 1
▶ Module 2
▶ **Module 3**
▶ Module 4
▶ Module 5
▶ Module 6
▶ Stream Connect
▶ IP Stream
▶ General

System

▶ Network
▶ Password
▶ Configuration
▶ Firmware
▶ Date | Time
▶ Log

MPEG2/H.264 ENCODER

General

Encoder ▾

OSD

System

Stream

Output Bitrate: 30.000 (0 ~ 50 Mbps) TS ID: 5
ON ID: 5

Apply

Click "Enc CH1" to "Enc CH4" to set the encoding parameters. A green video lock indicator means a source signal is present at the input.

DTV Headend Processor

Summary

▶ Status

Parameters

▶ Module 1
▶ Module 2
▶ **Module 3**
▶ Module 4
▶ Module 5
▶ Module 6
▶ Stream Connect
▶ IP Stream
▶ General

System

▶ Network
▶ Password
▶ Configuration
▶ Firmware
▶ Date | Time
▶ Log

MPEG2/H.264 ENCODER

General

Encoder-Enc CH 1 ▾

OSD

System

Enc CH 1

Enc CH 2

Enc CH 3

Enc CH 4

Video

Format:
GOP Struct:
Rate Mode: CBR
Max Bitrate: 4.00 (0.5 ~ 5 Mbps)
Brightness: 145 (0 ~ 255)
Contrast: 90 (0 ~ 255)
Hue: 0 (-128 ~ 127)
Pre Deblocking Length: 3 (0 ~ 3)
Cabac Enable: Off
Aspect Ratio: 4:3
GOP Size: 12 (6 ~ 60)
Bitrate: 4.00 (0.5 ~ 5 Mbps)
Low Bitrate: 1.00 (0.5 ~ 5 Mbps)
Saturation: 128 (0 ~ 255)
Out Resolution: Auto
Share PCR PID: ☐
Mctf Length: 3 (0 ~ 7)
Video Norm: Auto

Audio

Format: MPEG1 Layer2
Audio Gain: 0 (-20 ~ +12)
Bitrate: 128 Kbps
Audio Broadcast: ☐

Click "OSD" to set the logo, caption and QR code parameters. The overlay is positioned by dragging it on the preview; right-clicking an overlay opens its parameters, and the "Date" tab sets the period during which the overlay is shown. Select "on" to display the overlay, and choose one channel or all channels to apply it to.

Click "System" to check the module information:

DTV Headend Processor

Summary

▶ Status

Parameters

▶ Module 1
▶ Module 2
▶ **Module 3**
▶ Module 4
▶ Module 5
▶ Module 6
▶ Stream Connect
▶ IP Stream
▶ General

System

▶ Network
▶ Password
▶ Configuration
▶ Firmware
▶ Date | Time
▶ Log

MPEG2/H.264 ENCODER

GeneralEncoder▼OSDSys

Module Info.

Software Version:

4.08 Build 153.00 Jul 6 2017

Hardware Version:

4.110.0.0

System Version:

2.01.1.61

Module ID:

3

M-ENC-4HDMI

Click "Enc CH 1" to "Enc CH 4" to set the parameters of each encoding channel: video bit rate and scaling, H.264 profile and level, low delay, rate control mode, audio format and bit rate, and the program identification (service name and provider, PMT, PCR, video and audio PIDs). The status block shows the video lock, the input resolution and the current bit rate.

Summary

▶ Status

Parameters

▶ **Module 1**
▶ Module 2
▶ Module 3
▶ Module 4
▶ Module 5
▶ Module 6
▶ Stream Connect
▶ IP Stream
▶ General

System

▶ Network
▶ Password
▶ Configuration
▶ Firmware
▶ Date | Time
▶ Log

4 CHS H.264 ENCODER

Enc CH 1Enc CH 2Enc CH 3Enc CH 4System

Video

Bitrate:

7.00

Mbps (0.8 ~ 19)

Low Delay:

300

(50 ~ 500)

Video Scale:

☐

H.264 Profile:

High Profile

H.264 Level:

Level 4

Bitrate Mode:

CBR

Audio

Format:

Mpeg2

Bitrate:

256 Kbps

Audio Gain:

100

(0-400%)

Program

Program Output:

☒

Service Name:

TV-1201

Service Provider:

TV-Provider

Service Number:

1201

PMT PID:

0x0068

PCR PID:

0x006b

Video PID:

0x0069

Audio PID:

0x006a

Status

Video Lock:



Video Resolution:

1920x1080 50i

Bitrate:

7.70Mbps

34

NetUP Streamer Base DVB4xC

Click "System" to check the module information:

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ **Module 1**
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Connect
- ▶ IP Stream
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Log

4 CHS H.264 ENCODER

Enc CH 1 Enc CH 2 Enc CH 3 Enc CH 4 System

Module Info.

Software Version:	1.11 Build 1.15 20160713	Hardware Version:	0.23
System Version:	0.1	Module ID:	1

Status Info.

Valid Bitrate:	7.62Mbps	Total Bitrate:	90.00Mbps
----------------	----------	----------------	-----------

Some versions of the module support overlays. On those, the encoding channel screen carries an additional "OSD" tab:

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ **Module 1**
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Connect
- ▶ IP Stream
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Date | Time
- ▶ Log

ENCODER

Encoder-Enc CH 1 ▾ OSD Firmware

Video

Bitrate:	Enc CH 1	Rate Mode:	CBR
H.264 Profile:	Enc CH 2	Gop Size:	25 (25-50)

Audio

Bitrate:	256 Kbps	Audio Gain:	128 (0 ~ 255)
----------	----------	-------------	---------------

Program

Program Output:	TV-Provider	Program Name:	TV-5101
Service Name:	0x0064	Program Number:	5101
PMT PID:	0x0065	PCR PID:	0x0067
Video PID:		Audio PID:	0x0066

System

PCR Interval:	10		(10 ~ 30)
---------------	----	--	-----------

The "OSD" tab adds a logo, a caption or a QR code to one encoding channel or to all channels at once.

Click "Firmware" to check the current versions and upgrade the module:

DTV Headend Processor

Summary

Parameters

System

Status

Module 1

Module 2

Module 3

Module 4

Module 5

Module 6

Stream Connect

IP Stream

General

Network

Password

Configuration

Firmware

Date | Time

Log

ENCODER

Encoder

OSD

Firmware

Warning:

1. Upgrade firmware(software and hardware) to get new function,please choose the right firmware to upgrade.If you use a wrong file,the device may not work.

2. Upgrade will keep a long time,please do not turn off the power, otherwise the device will not work.

3. After upgrade,you must reboot device manually.

Current Software Version:

01.04.11 Build 153.01 Oct 9 2017

Web Version:

1.02

System Version:

4.1

select file:

浏览...

未选择文件。

Upgrade

M-ENC-4UHD

Click "Encoder" to display the programs of each encoding channel and to set the video and audio parameters.



Only channels 3 and 4 encode 3840×2160_30P and 3840×2160_29.97P with HEVC/H.265.

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ **Module 1**
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Connect
- ▶ IP Stream
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Date | Time
- ▶ Log

H.265/H.264 ENCODER

Encoder ▾
General
System

Video

Format:	H.265 ▾	GOP Struct:	IBBP ▾
Rate Mode:	CBR ▾	Bitrate:	2.00 (0.5 ~ 20 Mbps)
Average Bitrate:	1.50 (0.5 ~ 20 Mbps)	Out Resolution:	1920 x 1080 50p ▾ Auto ☒

Audio

Format:	MPEG1 Layer2 ▾	Bitrate:	128 Kbps ▾
Audio Gain:	128 (0 ~ 255)	Audio Delay Mode:	Mode 1 ▾

Program

Program Output:	☒	Service Name:	TV-101
Service Provider:	TV-Provider	Program Number:	101
PMT PID:	0x0064	PCR PID:	0x0067
Video PID:	0x0065	Audio PID:	0x0066
Character Encoding:	UCS-2 ▾		

Status

Encoder Chip Version: 00.0F.00.11

Input Lock: ● Encode Status: ●

Click "General" to set the output bit rate:

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ **Module 1**
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Connect
- ▶ IP Stream
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Date | Time
- ▶ Log

H.265/H.264 ENCODER

Encoder ▾
General
System

Stream

Output Bitrate: Mbps

[Apply](#)

Click "System" to check the module information:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Date | Time

► Log

H.265/H.264 ENCODER

Encoder ▾

General

System

Module Info.

Software Version:

60.01.10 debug8 Build 153.00

Hardware Version:

01.00.05

System Version:

2.01.1.62

Module ID:

1

Module Configuration

Save config

Restore

Factory set

M-ENC-2HDMI

The module can work as an encoder or as a transcoder. Click "Encoder/Transcoder 1" or "Encoder/Transcoder 2" to set the parameters of the corresponding channel:

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ Module 1
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ **Module 6**
- ▶ Stream Connect
- ▶ IP Stream
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Log

MV Limiter:
Subtitle:
Denoiser:

Audio Pass Select:
Deinterlacer:
Transcoding Mode:

Video

Video Format:
GOP B Frame: (<=3)
Low Delay:
DTS Delay: (0 ~ 255)
H.264 Profile:
H.264 Level:

Bitrate: Mbps (0.8 ~ 19)
GOP P Frame: (<=6)
Aspect Ratio:
Manual Resolution: ☐
Out Resolution:
CC Switch:

Audio

Format:
Gain: (0-400%)

Bitrate:
Dialog Normalization: (-31 ~ -1)dB

Program

Program Output: ☒
Service Provider:
PMT PID:
Video PID:

Service Name:
Service Number:
PCR PID:
Audio PID:

Status

Video Lock: ●
Bitrate: 0.00Mbps

Video Resolution: unknown
Rom Ver: 3.202

Click "System" to check the module information:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► **Module 6**

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

MPEG2/H.264 ENCODER/TRANSCODER (HDMI)

Encoder/Transcoder 1

Encoder/Transcoder 2

System

Module Info.

Software Version: 2.05 Build 1.15 Aug 15 2016-16:23:01

Hardware Version: 0.70

System Version: 0.1

Module ID: 6

TS Out Info.

Output Bitrate: 54.000 Mbps

TS ID: 1

ON ID: 1

Bitrate: 0.099/54.000, Mbps

Apply

Configuration

Save

Restore

Factory Set

When you change the parameter, you should save configuration, otherwise the new configuration will be lost after reboot.

Save config

M-ENC-2SDI

The module works in the same way as M-ENC-2HDMI, with SDI inputs instead of HDMI.

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

MPEG2/H.264 ENCODER/TRANSCODER (SDI)

Encoder/Transcoder 1 Encoder/Transcoder 2 System

Transcoding

TS Lock: ● Bitrate: 0.00Mbps

Mode: Transcoder Channel:

Program Select: Audio Trans Select:

MV Limiter: Audio Pass Select:

Subtitle: Deinterlacer:

Denoiser: Transcoding Mode:

Search Prg.

Video

Video Format: Bitrate: Mbps (0.8 ~ 19)

GOP B Frame: (<=3) GOP P Frame: (<=6)

Low Delay: Aspect Ratio:

DTS Delay: (0 ~ 255) Manual Resolution: ☐

H.264 Profile: Out Resolution:

H.264 Level: CC Switch:

Audio

Format: Bitrate:

Gain: (0-400%) Dialog Normalization: (-31 ~ -1)dB

Program

Program Output: ☒ Service Name:

Service Provider: Service Number:

DTV Headend Processor

Summary

► Status

Parameters

► **Module 1**

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

MPEG2/H.264 ENCODER/TRANSCODER (SDI)

Encoder/Transcoder 1

Encoder/Transcoder 2

System

Module Info.

Software Version: 2.05 Build 1.15 Aug 15 2016-09:15:42

Hardware Version: 0.30

System Version: 0.1

Module ID: 1

TS Out Info.

Output Bitrate: Mbps

TS ID:

ON ID:

Bitrate: 0.101 / 54.000, Mbps

Apply

Configuration

Save

Restore

Factory Set

When you change the parameter, you should save configuration, otherwise the new configuration will be lost after reboot.

Save config

Tuner and Descrambling Modules

M-2S2CI

Click "Tuner1-2" to configure the tuner inputs. Enter the parameters of the source signal and click **[Apply]** to lock the tuners.

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

DOUBLE TUNER CI CARD MODULE

Tuner 1	Tuner 2	CI Card	Biss	Mux	PID Pass	General	System
Input Param							
Satellite Frequency:		3840	MHz		LNB Frequency:		5150
Symbolrate:		27500	KHz		LNB Voltage:		0V
22K:		OFF					
Status							
Signal Lock:				Bitrate:		34.74/38.02Mbps	
Signal Quality:		 13%		Signal Strength:		 14%	
Apply							

The module carries two CI slots for descrambling programs from the tuner inputs. Click "CI Card" to configure each card. One card can descramble programs from both tuner inputs; "Skip CI card" bypasses the card for free-to-air streams. The card error check can be enabled with the corresponding check box.

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

DOUBLE TUNER CI CARD MODULE

Tuner 1	Tuner 2	CI Card	Biss	Mux	PID Pass	General	System
⇒ Lose ⇒ Locked ⇒ Program (0/7) [34.74M] 1: ☐ CCTV 1 2: ☐ CCTV 2 3: ☐ CCTV 7 4: ☐ CCTV 10 5: ☐ CCTV 11 6: ☐ CCTV 12 7: ☐ CCTV 15							
CI Card Select Card A							
CI Max Bitrate 48 Mbps							
Input TS Mode Tuner1							
CI Card Error Check ☐							
Delay time 5							
CI Card Status ●							
Descramble Error ●							
Rom Version 1.6.1.5							
Default config		Set					
Get		Set					
Parse program		time out: 60 seconds					

Log

Clear log

Card : 0 !! DVBCI_InitMODELbegin

Card : 0 !! DVBCI_InitMODEL50%

Card : 0 !! DVBCI_InitMODEL70%

Card : 0 !! DVBCI_InitMODEL80%

Card : 0 !! DVBCI_InitMODEL90%

After configuring the card parameters, apply them and select the source in "Input TS Mode". The programs found in the selected stream are listed in the "Descramble" box:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

DOUBLE TUNER CI CARD MODULE

Tuner 1	Tuner 2	CI Card	Biss	Mux	PID Pass	General	System
⇒ Lose ⇒ Locked ⊞ ⇒ Program (0/7) [34.74M]							
CI Card Select Card A			CI Max Bitrate 48 Mbps				
Input TS Mode Tuner1			CI Card Error Check Skip CI Card				
Delay time 5			CI Card Status ●				
Descramble Error ●			Rom Version 1.6.1.5				
Default config			Set				
Get			Set				
Parse program			time out: 60 seconds				
Log Card : 0 !! DVBCI_InitMODELbegin Card : 0 !! DVBCI_InitMODEL50% Card : 0 !! DVBCI_InitMODEL70% Card : 0 !! DVBCI_InitMODEL80% Card : 0 !! DVBCI_InitMODEL90%							

Select the programs to be descrambled and apply the change. The number of programs that can be descrambled simultaneously depends on the CAM module in use. The number before the slash shows how many programs are being descrambled, the number after the slash – the total number of programs in the selected stream. Clicking the "+" symbol expands the program details.

Click "BISS" to configure BISS descrambling for the input channels:

DTV Headend Processor

Summary

Status

Parameters

Module 1

Module 2

Module 3

Module 4

Module 5

Module 6

Stream Connect

IP Stream

General

System

Network

Password

Configuration

Firmware

Log

DOUBLE TUNER CI CARD MODULE

Tuner 1Tuner 2CI CardBissMuxPID PassGeneralSystem

Index	Biss Mode	Descrambler Key(0x)	SK(0x)	Burned Key	+
1	mode 1			☐	

SetDel-All

Click "Mux" to select the programs from the two tuners for the module output (see [Multiplexing Screen](#)):

► Status

Parameters

- ▶ Module 1
- ▶ Module 2
- ▶ Module 3
- ▶ **Module 4**
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Connect
- ▶ IP Stream
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Log

Tuner 1	Tuner 2	CI Card	Biss	Mux	PID Pass	General	System
---------	---------	---------	------	-----	----------	---------	--------

→ Lose → Locked

→ Tuner1 (prog: 7/7) [34.7M]

- 1: ☒ CCTV 1
- 2: ☒ CCTV 2
- 3: ☒ CCTV 7
- 4: ☒ CCTV 10
- 5: ☒ CCTV 11
- 6: ☒ CCTV 12
- 7: ☒ CCTV 15

→ Tuner2 (prog: 7/7) [34.7M]

→ Connector4 (prog: 0) [24.3M]

☐ CA Filter

☒ PID Remap

Refresh Input

Refresh Output

====>

<====

All Input

All Output

Parse program

time out: 60 seconds

Program editing works as described in [Program Modification](#):

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► **Module 3**

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

4 TUNER RECEIVE MODULE

Tuner 1Tuner 2Tuner 3Tuner 4MuxPID PassGeneralSystem

⇒ Lose ⇒ Locked

⇒ Tuner 1 (prog: 0) [0.000M]

⇒ Tuner 2 (prog: 0) [0.000M]

⇒ Tuner 3 (prog: 0) [0.000M]

⇒ Tuner 4 (prog: 0) [0.000M]

☒ CA Filter

☒ PID Remap

Refresh Input

Refresh Output

===>

<===

All Input

All Output

⇒ Normal ⇒ Overflow

⇒ mod 3 export (prog: 0) [0.000/300.0M]

Parse program

time out: seconds

Click "PID Pass" to add the PIDs that must pass through:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

DOUBLE TUNER CI CARD MODULE

Tuner 1	Tuner 2	CI Card	Biss	Mux	PID Pass	General	System
---------	---------	---------	------	-----	----------	---------	--------

Index	Input Channel(1-3)	Input PID	Output PID	
1				+

Set

Del-All

Click "General" to set the parameters of the output stream:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

DOUBLE TUNER CI CARD MODULE

Tuner 1

Tuner 2

CI Card

Biss

Mux

PID Pass

General

System

Stream Out Mode:

Tuner1 Bypass

Tuner1 Bypass

Tuner2 Bypass

Connector4Bypass

Mux out

Output Bitrate:

80.00

Mbps

Apply

Click "System" to check the module information:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

DOUBLE TUNER CI CARD MODULE

Tuner 1 Tuner 2 CI Card Biss Mux PID Pass General **System**

Module Info.

Software Version: 1.6.1.5 Module ID: 4

Module Cfg

Factory set

Restore

M-4S

Click "Tuner1-4" to set the RF parameters of the four tuner inputs:

DTV Headend Processor

Summary

▶ Status

Parameters

▶ Module 1

▶ Module 2

▶ Module 3

▶ Module 4

▶ Module 5

▶ Module 6

▶ Stream Connect

▶ IP Stream

▶ General

System

▶ Network

▶ Password

▶ Configuration

▶ Firmware

▶ Log

4 TUNER RECEIVE MODULE

Tuner 1
Tuner 2
Tuner 3
Tuner 4
Mux
PID Pass
General
System

DVBS2

Frequency: KHz
Symbol Rate: Ksps
22K:

LNB Frequency: KHz
LNB Voltage:
Satellite: (1-8)

Status

Signal Lock: ●
Signal Quality:

55%

Bitrate: 0.000Mbps
Signal Strength:

59%

The module has no output ports of its own, so its streams are always passed to another module or to the chassis. Click "Mux" to select the programs from the four tuners (see [Multiplexing Screen](#)):

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► **Module 5**

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

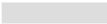
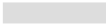
► Password

► Configuration

► Firmware

► Log

4 TUNER RECEIVE MODULE

	Tuner 1	Tuner 2	Tuner 3	Tuner 4	Mux	PID Pass	General	System
DVBC								
Frequency:	555000			kHz		Symbol Rate:	6875 Ksps	
Constellation:	256 QAM					Annex:	J.83A(DVBC)	
Status								
Signal Lock:						Bitrate:	0.000Mbps	
Signal Quality:	 0%					Signal Strength:	 0%	
							Apply	

Click "PID Pass" to add the PIDs that must pass through:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

4 TUNER RECEIVE MODULE

Tuner 1Tuner 2Tuner 3Tuner 4MuxPID PassGeneralSystem

Index	Input Channel	Input PID(0x)	Output PID(0x)	
1				+ ✕

Set

Del-All

Click "General" to set the general parameters of the module:

54

NetUP Streamer Base DVB4xC

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► **Module 3**

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

4 TUNER RECEIVE MODULE

Tuner 1Tuner 2Tuner 3Tuner 4MuxPID PassGeneralSystem

General

Stream Out Mode: Out Bitrate: Mbps

Apply

Click "System" to check the module information:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

4 TUNER RECEIVE MODULE

Tuner 1Tuner 2Tuner 3Tuner 4MuxPID PassGeneralSystem

Module Info

Software Version:1.8.0.7 20160827Module ID:3

Module Cfg

Factory setRestore

M-4TC

The module supports four tuner inputs with dynamic switching between DVB-C (J.83 A/C), J.83B, DVB-T, DVB-T2 and ISDB-T. Click "Tuner1-4" to set the RF parameters; the form depends on the selected standard.

DVB-C (J.83 A/C):

DTV Headend Processor

Summary

▶ Status

Parameters

▶ Module 1
▶ Module 2
▶ Module 3
▶ Module 4
▶ Module 5
▶ Module 6
▶ Stream Connect
▶ IP Stream
▶ General

System

▶ Network
▶ Password
▶ Configuration
▶ Firmware
▶ Date | Time
▶ Log

4 TUNER RECEIVE MODULE

Tuner 1Tuner 2Tuner 3Tuner 4MuxPID PassGeneralIP Stream

System

Input Param

Demodulation:

DVB-C(J.83 A/C)
DVB-T
DVB-T2
DVB-C(J.83 A/C)
J.83B
ISDB-T

Frequency:(60~890)
586
MHz
Constellation:
64 QAM

Status

Signal Lock:
Signal Quality:
99%
Signal Strength:
70%
BER:
0.00e+00

Bitrate:
34.735Mbps
C/N:
38.50 dB
Power:
-29.50 dBm

Apply

DVB-T:

DTV Headend Processor

Summary

▶ Status

Parameters

▶ Module 1
▶ Module 2
▶ Module 3
▶ Module 4
▶ Module 5
▶ Module 6
▶ Stream Connect
▶ IP Stream
▶ General

System

▶ Network
▶ Password
▶ Configuration
▶ Firmware
▶ Date | Time
▶ Log

4 TUNER RECEIVE MODULE

Tuner 1Tuner 2Tuner 3Tuner 4MuxPID PassGeneralIP Stream

System

Input Param

Demodulation:

DVB-T

Frequency:(60~890)
586
MHz
Bandwidth:
8 M

Status

Signal Lock:
Signal Quality:
0%
Signal Strength:
0%
BER:
1.00e+00

Bitrate:
0.000Mbps
C/N:
0.00 dB
Power:
-29.50 dBm

Apply

DVB-T2:

DTV Headend Processor

Summary

▶ Status

Parameters

▶ Module 1
▶ Module 2
▶ Module 3
▶ Module 4
▶ Module 5
▶ Module 6
▶ Stream Connect
▶ IP Stream
▶ General

System

▶ Network
▶ Password
▶ Configuration
▶ Firmware
▶ Date | Time
▶ Log

4 TUNER RECEIVE MODULE

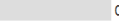
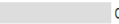
Tuner 1Tuner 2Tuner 3Tuner 4MuxPID PassGeneralIP Stream

System

Input Param

Demodulation: DVB-T2Frequency:(60~890) 586 MHz
PLP: 0Bandwidth: 8 M

Status

Signal Lock: 
Signal Quality:  0%
Signal Strength:  0%
BER: 1.00e+00
Bitrate: 0.000Mbps
C/N: 0.00 dB
Power: -29.50 dBm

Apply

J.83B:

Summary

▶ Status

Parameters

▶ Module 1
▶ Module 2
▶ Module 3
▶ Module 4
▶ Module 5
▶ Module 6
▶ Stream Connect
▶ IP Stream
▶ General

System

▶ Network
▶ Password
▶ Configuration
▶ Firmware
▶ Date | Time
▶ Log

4 TUNER RECEIVE MODULE

Tuner 1Tuner 2Tuner 3Tuner 4MuxPID PassGeneralIP Stream

System

Input Param

Demodulation: J.83BFrequency:(60~890) 586 MHz
Symbolrate: 5057 KspsConstellation: 64 QAM
(1000~9000)

Status

Signal Lock: 
Signal Quality:  0%
Signal Strength:  0%
BER: 1.00e+00
Bitrate: 0.000Mbps
C/N: 0.00 dB
Power: -29.50 dBm

Apply

ISDB-T:

Summary

Parameters

System

► [Log](#)

Tuner 1	Tuner 2	Tuner 3	Tuner 4	Mux	PID Pass	General	IP Stream
System							

Frequency:(60~890) 586 MHz

Apply

DTV Headend Processor

Summary

Example

► Password

```

graph LR
    Tuner1[Tuner 1] --> Tuner2[Tuner 2]
    Tuner2 --> Tuner3[Tuner 3]
    Tuner3 --> Tuner4[Tuner 4]
    Tuner4 --> Mux[Mux]
    Mux --> PIDPass[PID Pass]
    PIDPass --> General[General]
    General --> IPStream[IP Stream]
  
```

Parse program time out: 60 seconds

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DTV Headend Processor

Summary

▶ Status

Parameters

▶ Module 1
▶ Module 2
▶ Module 3
▶ Module 4
▶ Module 5
▶ Module 6
▶ Stream Connect
▶ IP Stream
▶ General

System

▶ Network
▶ Password
▶ Configuration
▶ Firmware
▶ Date | Time
▶ Log

4 TUNER RECEIVE MODULE

Tuner 1
Tuner 2
Tuner 3
Tuner 4
Mux
PID Pass
General
IP Stream

System

Index	Input Channel	Input PID(0x)	Output PID(0x)	
1				+ 🗑️

Set

Del-All

Click "General" to set the general parameters of the module:

Summary

▶ Status

Parameters

▶ Module 1
▶ Module 2
▶ Module 3
▶ Module 4
▶ Module 5
▶ Module 6
▶ Stream Connect
▶ IP Stream
▶ General

System

▶ Network
▶ Password
▶ Configuration
▶ Firmware
▶ Date | Time
▶ Log

4 TUNER RECEIVE MODULE

Tuner 1
Tuner 2
Tuner 3
Tuner 4
Mux
PID Pass
General
IP Stream

System

General

Stream Out Mode:

Mux out
Mux out
Tuner1 Bypass
Tuner2 Bypass
Tuner3 Bypass
Tuner4 Bypass

Out Bitrate:
130
Mbps

Apply

If the stream output mode is set to "Tuner1/2/3/4 Bypass", the multiplexing section stays empty:

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ Module 1
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Connect
- ▶ IP Stream
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Date | Time
- ▶ Log

4 TUNER RECEIVE MODULE

Tuner 1 Tuner 2 Tuner 3 Tuner 4 Mux PID Pass General IP Stream

System

⇒ Lose ⇒ Locked

☐ CA Filter
☐ PID Remap

⇒ Normal ⇒ Overflow

time out: 60 seconds

Click "IP Stream" to set the data port parameters:

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ Module 1
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Connect
- ▶ IP Stream
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Date | Time
- ▶ Log

4 TUNER RECEIVE MODULE

Tuner 1 Tuner 2 Tuner 3 Tuner 4 Mux PID Pass General IP Stream

System

Dataport

IP Address:	192.168.2.136	Subnet Mask:	255.255.255.0
Gateway:	192.168.2.1	MAC Address:	201709141927

Click "System" to check the module information:

DTV Headend Processor

Summary

Status

Parameters

Module 1

Module 2

Module 3

Module 4

Module 5

Module 6

Stream Connect

IP Stream

General

System

Network

Password

Configuration

Firmware

Date | Time

Log

4 TUNER RECEIVE MODULE

Tuner 1Tuner 2Tuner 3Tuner 4MuxPID PassGeneralIP Stream

System

Module Info

Software Version:6.5.0.1 20180809Module ID:1

Module Cfg

Factory setRestore

Modulating Modules

The modulating modules – M-MOD-16C, M-MOD-32C, M-MOD-48C, M-MOD-8T, M-MOD-8A and M-MOD-6I – share the same web interface; the number of output channels and the modulation standard differ. The screens below are shown for one of them.

Click "Mux-Output CH X" to select the transport streams for each output channel:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

MULTI ISDBT MODULATION MODULE

Mux-Output CH 1 ▾ General ▾ PID Pass ▾ IP Stream Modulator System

Output CH 1
Output CH 2
Output CH 3
Output CH 4
Output CH 5
Output CH 6

Loss: [0.0/0.0M]
CH1: [0.0/0.0M]
CH2: [0.0/0.0M]
CH3: [0.0/54.0M]

☒ CA Filter
☒ PID Remap

Refresh Input
Refresh Output
====>
<====

All Input
All Output

Normal → Overflow
Output TS 1 (prog: 0) [0.0/23.2M]

Pause program time out: 60 seconds

Click "General" to set the parameters of each output channel:

DTV Headend Processor

Summary

►Status

Parameters

►Module 1

►Module 2

►Module 3

Module 4

►Module 5

►Module 6

►Stream Connect

►IP Stream

►General

System

►Network

►Password

►Configuration

►Firmware

►Log

MULTI ISDBT MODULATION MODULE

Mux▼General-Output CH 1▼PID Pass▼IP StreamModulatorSystem

Stream

Output Mode:Mux out▼PAT Insert:☒

SDT Insert:☒BAT Insert:☒

Share BAT:☐CAT Insert:☒

PMT Insert:☒TDT Insert:☒

TDT Insert:☒TS ID:1

ON ID:1PCR Correct:☒

PCR Speed BW:1▼PCR State BW:1▼

PCR Compensate:2▼

IIIT

NIT Insert:☐ (PSI Editor Insert ☐)Private Data:☒0x00000000

Network ID:1Network Name:network-1

Version Mode:Automatic▼Version Number:1 (0-31)

Index	TS ID	ON ID	Area Code	Guard Interval	Trans Mode
-------	-------	-------	-----------	----------------	------------

IPTV Sync(SPTS)

IPTV Sync:☐Sync Period:60 Sec

Apply

Click "PID Pass" to add the PIDs that must pass through:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

MULTI ISDBT MODULATION MODULE

Mux ▼

General ▼

PID Pass-Output CH 1 ▼

IP Stream

Modulator

System

Index	Input Channel	Input PID(0x)	Output PID(0x)	
1				+ ✕

Set

Del-All

The module can also output the transport streams in IP format through the data port. Click "IP Stream" to set the output parameters:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

MULTI ISDBT MODULATION MODULE

Mux ▾

General ▾

PID Pass ▾

IP Stream

Modulator

System

Channel Info.(Alarm/Active/Total): 0/6/6

Channel	IP Address	Port	Protocol	Pkt Length	Hull PKT Filter	Status	Bit(Act/Max)	
1	224.2.2.2	2001	UDP	7	☐	●	0.0/23.2 M	
2	224.2.2.2	2002	UDP	7	☐	●	0.0/23.2 M	
3	224.2.2.2	2003	UDP	7	☐	●	0.0/23.2 M	
4	224.2.2.2	2004	UDP	7	☐	●	0.0/23.2 M	
5	224.2.2.2	2005	UDP	7	☐	●	0.0/23.2 M	
6	224.2.2.2	2006	UDP	7	☐	●	0.0/23.2 M	

Click "Modulator" to set the RF output parameters. The parameters can be set for one carrier at a time or for all carriers at once.

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► **Module 4**

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

MULTI ISDBT MODULATION MODULE

Mux ▾

General ▾

PID Pass ▾

IP Stream

Modulator

System

Center Frequency: 665.000 MHz

Standard: ISDBT

Level(All Carriers): 0.0 dBm

Channel Info.(Alarm/Active/Total): 0/6/6

Guard Interval: 1/32 ▾

Constellation: 64QAM ▾

FFT Mode: 2K ▾

Code Rate: 7/8 ▾

Freq Offset: 142.857 KHz

Apply

Channel	Frequency	Gain offset	Status	Bit(Act/Max)	
1	660.000 MHz	0.0 dB	●	0.0/23.2 M	✎
2	666.000 MHz	0.0 dB	●	0.0/23.2 M	✎
3	662.000 MHz	0.0 dB	●	0.0/23.2 M	✎
4	668.000 MHz	0.0 dB	●	0.0/23.2 M	✎
5	674.000 MHz	0.0 dB	●	0.0/23.2 M	✎
6	680.000 MHz	0.0 dB	●	0.0/23.2 M	✎

Click "System" to check the module information:

Multi ISDBT Modulation Module

Summary

Status

Parameters

TS Config

Modulator

IP Stream

System

Network

Password

Configuration

Firmware

Log

MODULATOR

Center Frequency: 665.000 MHz

Standard: ISDBT

Level(All Carriers): 0.0 dBm

Channel Info.(Alarm/Active/Total): 0/6/6

Quickly Config.

[close]

Level(All Carriers):

0.0

(-20 ~ +10 dBm)

Channel Enable:

☒

Start Frequency:

660.000

(50 ~ 960 MHz)

Gain offset:

0.0

(-10 ~ 0 dB)

Apply

Close

64QAM

7/8

			status	Bit(Act/Max)	
				0.0/23.2 M	
				0.0/23.2 M	
				0.0/23.2 M	
4	668.000 MHz	0.0 dB		0.0/23.2 M	
5	674.000 MHz	0.0 dB		0.0/23.2 M	
6	680.000 MHz	0.0 dB		0.0/23.2 M	

Decoding and Transcoding Modules

M-DEC-2SDI

The module has two ASI ports and two SDI outputs. Click "In-Out" to set the direction of the ASI ports:

DTV Headend Processor

Summary

► Status

Parameters

► **Module 1**

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

DECODER MODULE

In-Out	Mux ▾	General ▾	PID Pass ▾	Decoder	System
--------	-------	-----------	------------	---------	--------

ASI 1 Direction:

ASI 2 Direction:

Click "Mux" to select the programs for the output (see [Multiplexing Screen](#)):

DTV Headend Processor

Summary

► Status

Parameters

► **Module 1**

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

DECODER MODULE

In-Out

Mux-ASI Output 1 ▾

General ▾

PID Pass ▾

Decoder

System

⇒ Lose ⇒ Locked

⇒ **ASI 1 (prog: 1/1)** [15.8M]

1: ☒ TV-101

⇒ ASI 2 (prog: 0) [15.8M]

⇒ Connector 1 (prog: 0) [0.0M]

☒ CA Filter

☒ PID Remap

Refresh Input

Refresh Output

===>

<===

All Input

All Output

⇒ Normal ⇒ Overflow

⇒ **ASI Output 1 (prog: 1)** [15.8/80.0M]

1: ☐ TV-101

Parse program time out: seconds

Click "General" to set the parameters of the two ASI outputs and of the module export to the chassis:

DTV Headend Processor

Summary

► Status

Parameters

► **Module 1**

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

DECODER MODULE

In-Out	Mux	General-ASI Output 1	PID Pass	Decoder	System
Output Mode: Mux out Output Bitrate: 80.000 Mbps					
Stream					
TS ID:		ASI 1 Bypass ASI 2 Bypass Connector 1 Bypass			
SDT Insert:		☒			
TS Pkt Mode:		188			
PMT Interval:		Auto			
ON ID:		1			
NIT Insert:		☐			
PAT Interval:		Auto			
SDT Interval:		Auto			
Apply					

Click "PID Pass" to add the PIDs that must pass through:

DTV Headend Processor

Summary

▶ Status

Parameters

▶ Module 1

▶ Module 2

▶ Module 3

▶ Module 4

▶ Module 5

▶ Module 6

▶ Stream Connect

▶ IP Stream

▶ General

System

▶ Network

▶ Password

▶ Configuration

▶ Firmware

▶ Log

DECODER MODULE

In-OutMuxGeneralPID Pass-ASI Output 1DecoderSystem

Index	Input Channel	Input PID(0x)	Output PID(0x)	
1				+

SetDel-All

The module decodes up to two programs simultaneously to the SDI outputs. Click "Decoder" to configure the video and audio output parameters:

DTV Headend Processor

Summary

► Status

Parameters

► **Module 1**

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

► IP Stream

► General

System

► Network

► Password

► Configuration

► Firmware

► Log

DECODER MODULE

In-Out
Mux ▾
General ▾
PID Pass ▾
Decoder
System

Output Format: Auto ▾

Audio1 Mode: Stereo ▾

Audio1 Select: ▾

Audio2 Mode: Stereo ▾

Audio2 Select: Off ▾

CC Enable: Off ▾

Subtitle: Off ▾

Ac3 Pass: Off ▾

Volume: 60

Program Select: ▾

Decoder OK: ●

Decoder1:

Output Format: Auto ▾

Audio1 Mode: Stereo ▾

Audio1 Select: ▾

Audio2 Mode: Stereo ▾

Audio2 Select: Off ▾

CC Enable: Off ▾

Subtitle: Off ▾

Ac3 Pass: Off ▾

Volume: 60

Program Select: ▾

Decoder OK: ●

Search Program
Apply

Decoding is configured as follows:

1. Select the decoding channel.
2. Click **[Parse program]** to list the available input programs.
3. Set the video and audio parameters and select the program to be decoded.
4. Click **[Apply]** and wait until the status indicator turns green.

Click "System" to check the module information:

DTV Headend Processor

Summary

▶ Status

Parameters

▶ **Module 1**

▶ Module 2

▶ Module 3

▶ Module 4

▶ Module 5

▶ Module 6

▶ Stream Connect

▶ IP Stream

▶ General

System

▶ Network

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▶ Firmware

▶ Log

DECODER MODULE

In-Out
Mux▼
General▼
PID Pass▼
Decoder
System

Module Info.

Software Version:	1.07 Build 100.00 Aug 11 2016	Hardware Version:	2.30
System Version:	01.01.02.04 Decoder 09 09	Module ID:	1

Decoder Reset

Firmware

File: Browse... No file selected.

Upgrade

M-TRX-2IP

The module transcodes video and audio on two channels. It has no input or output ports of its own and is always used together with another module.

Click "CH1" or "CH2" to set the transcoding parameters:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► **Module 3**

► Module 4

► Module 5

► Module 6

► Stream Connect

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TRANSCODER MODULE

CH 1 CH 2 System

Program

TS Lock: 

Bitrate: 32.341/38.000 Mbps

Program List: 2: CCTV 4A ▼

Timeout: 60 seconds

Search Prg.

Select Prg.

Program Info.

Video

Video Format: Auto ▼

Bitrate(1-19.5): 11.500 Mbps

Rate Mode: CBR ▼

H.264 Profile: High Profile ▼

H.264 Level: Level 4.0 ▼

GOP Struct: IBBP ▼

Audio

Audio Mode: Stereo ▼

Audio Select: Track 1 - eng ▼

Volume(0-100): 100

Bitrate: 384 kbps ▼

Format: MPEG-2 ▼

Status

Rom Version: 0.4.0.0

Decoder: 

Encoder: 

Bitrate: 12.304 Mbps

Apply

Click "System" to check the module information:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► **Module 3**

► Module 4

► Module 5

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TRANSCODER MODULE

CH 1 CH 2 **System**

Module Info.

Software Version: 2.10 Build 120.00 Jun 27 2016 **Hardware Version:** 0.20.0.0
System Version: 1.10.1.50 **Module ID:** 3

TS Out Info.

Output Bitrate: Mbps **TS ID:**
ON ID:
Bitrate: 24.220/45.000 Mbps

Apply

Firmware

File: No file selected.

Upgrade

Stream Connect

The chassis combines the streams of the installed modules into the output transport streams. Select "Stream Connect" in the left menu and open the required connector to choose the programs from each module.

The device supports six module outputs, 8 MPTS (through GE2 only) and 512 SPTS (through GE1 only); the ASI output carries the same programs as MPTS 2.

DTV Headend Processor

In the input list, "Module X export" means the transport stream coming from module X, and "Connector X" means the stream that will be sent out through module X. The controls of this screen are described in [Multiplexing Screen](#), and program editing in [Program Modification](#).

Click "General" to set the parameters of the corresponding connector:

Click "PID Pass" to add the PIDs that must pass through:

DTV Headend Processor

Summary

Status

Parameters

Module 1

Module 2

Module 3

Module 4

Module 5

Module 6

Stream Connect

IP Stream

General

System

Network

Password

Configuration

Firmware

Date | Time

Log

STREAM CONNECT

Connector 1

Stream Select

General

PID Bypass

Event

Rating Region

Index	Input Channel	Input PID(0x)	Output PID(0x)	
1				+

Set

Del-All

Click "Event" to set the upcoming events for the programs:

DTV Headend Processor

Summary

Status

Parameters

Module 1

Module 2

Module 3

Module 4

Module 5

Module 6

Stream Connect

IP Stream

General

System

Network

Password

Configuration

Firmware

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Log

STREAM CONNECT

Connector 1

Stream Select

General

PID Bypass

Event

Rating Region

Select Prg.:

+

Index	Event ID	Start Time	Duration(sec)	Title	
-------	----------	------------	---------------	-------	--

Click "Rating Region" to classify the input programs:

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► **Stream Connect**

► IP Stream

► General

System

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► Password

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STREAM CONNECT

	Connector 1 ▾	Stream Select	General	PID Bypass	Event	Rating Region
+ ✖						
Index	Dimension Name	Graduated Scale	Rating Num			
1	EntireAudience	1	6			
2	Dialogue	0	2			
3	Language	0	2			
4	Sex	0	2			
5	Violence	0	2			
6	Children	1	3			
7	FantasyViolence	0	2			
8	MPAA	1	9			

IP Stream

Click "IP Stream" to set the parameters of the transport streams sent out through the data ports: destination IP address, port, protocol and the programs carried by each stream.

DTV Headend Processor

Summary

► Status

Parameters

► Module 1

► Module 2

► Module 3

► Module 4

► Module 5

► Module 6

► Stream Connect

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► Log

IP STREAM

Output Protocol:

UDP

UDP

RTP

MPTS-GE2

	Enable	Null PKT Filter	Output IP	Port
mod 1 export:	☐	☐	224.2.2.2	2001
mod 2 export:	☐	☐	224.2.2.2	2002
mod 3 export:	☐	☐	224.2.2.2	2003
mod 4 export:	☐	☐	224.2.2.2	2004
mod 5 export:	☐	☐	224.2.2.2	2005
mod 6 export:	☐	☐	224.2.2.2	2006
MPTS 1:	☐	☐	224.2.2.2	2007
MPTS 2:	☐	☐	224.2.2.2	2008

Default

Apply

General

Click "General" to review the general parameters of the chassis.

DTV Headend Processor

Summary

- ▶ Status

Parameters

- ▶ Module 1
- ▶ Module 2
- ▶ Module 3
- ▶ Module 4
- ▶ Module 5
- ▶ Module 6
- ▶ Stream Connect
- ▶ IP Stream
- ▶ General

System

- ▶ Network
- ▶ Password
- ▶ Configuration
- ▶ Firmware
- ▶ Date | Time
- ▶ Log

GENERAL

Module 1 Debug: ☐

Module 2 Debug: ☐

Module 3 Debug: ☐

Module 4 Debug: ☐

Module 5 Debug: ☐

Module 6 Debug: ☐

Apply

System

Network

Click "Network" to view and change the network configuration of the chassis: IP address, subnet mask, gateway, web management port and MAC address of the management interface. Click **[Apply]** to save the changes.

Password

Click "Password" to change the account and password used to log in to the web interface. Enter the current user name and password, then specify the new ones and confirm. A password of at least six characters that mixes upper- and lower-case letters, digits and special characters is recommended.

Configuration

Click "Configuration" to manage the device configuration: save the current configuration, restore the last saved one, reset to the factory defaults, back the configuration up to a file or load it from a file.



After restoring a configuration, save it before rebooting; otherwise the restored parameters are lost on reboot.

Firmware

Click "Firmware" to update the firmware of the chassis; the page shows the current software and hardware versions.

Firmware files and update instructions are provided by NetUP technical support on request.

Date / Time

Click "Date/Time" to set the device clock and select the time zone.

Log

Click "Log" to view the device logs for diagnostics. Select the log type from the drop-down list; the log can be cleared or exported to a file.

Troubleshooting

Preventive measures:

- Install the device where the ambient temperature is between 0 and 45 °C.
- Ensure good ventilation for the heat sink on the rear panel and other vents.
- Before switching the device on, check that the input AC voltage is within the power-supply range and that the connection is correct.
- Check that the RF output level stays within the tolerant range.
- Check that all signal cables are properly connected.
- Do not switch the device on and off frequently; the interval between switching on and off must be more than 10 seconds.

Unplug the power cord in the following cases:

- The power cord or socket is damaged.
- Any liquid has entered the device.
- Anything causes a short circuit.
- The device is in a damp environment.
- The device has suffered physical damage.
- The device has been idle for a long time.
- The device still does not work properly after being switched on and restored to factory settings.

In these cases the device requires maintenance.

Glossary

Abbreviations and professional TV / IPTV terms used in this manual.

Term	Description
8VSB	Vestigial sideband modulation used by ATSC.
AAC	Advanced Audio Coding; audio codec (LC-AAC, HE-AAC variants).
AC3	Dolby Digital audio.
ASI	Asynchronous Serial Interface; a serial transport-stream interface (over BNC).
ATSC	North American digital terrestrial TV standard.
CA / CAS	Conditional Access (System); pay-TV access control.
Carrier	A single RF channel of the modulated output.
CATV	Cable television.
CBR / VBR	Constant / variable bit rate.
CC	Closed Caption; hidden subtitles.
Code rate	FEC coding rate (DVB-T / ISDB-T).
Constellation	QAM order (16...256-QAM); higher carries more bit rate but needs a better signal.
Crypto period	Interval between scrambling-key changes.
CVBS	Composite Video Baseband Signal; analog composite video (single-cable analog video input).
DAR	Display Aspect Ratio.
DB15 / RCA	Connector types of the CVBS input (the device uses a DB15-to-RCA breakout cable).
dBm / dBμV	Units of RF signal level.
Dialog normalization	Loudness-levelling metadata that keeps the perceived volume consistent across programs (Dolby Digital / AC-3).
DTS	Decoding Time Stamp; a decoder timing marker – the "DTS Delay" setting tunes end-to-end latency (not the DTS audio codec).
DVB-C / DVB-T	Digital cable / terrestrial TV standards.
DVB-CSA	DVB Common Scrambling Algorithm.
ECM / EMM	Entitlement Control / Management Message – descrambling keys / subscriber rights.
ECMG / EMMG	ECM / EMM generators; the interface to the CAS.
EIA-608 / EIA-708	Closed-caption standards (CEA-608 / CEA-708); carried on the SDI input (Line 21).
FEC	Forward Error Correction.
GE	Gigabit Ethernet port.
GOP	Group of Pictures (I / P / B frame structure).
Guard interval	OFDM guard interval (DVB-T / ISDB-T).

Term	Description
H.264 (AVC) / H.265 (HEVC)	Video codecs; HEVC is more efficient and is used for 4K.
HDMI	Digital video input.
HP / MP / BP	High / Main / Baseline Profile – H.264 complexity / efficiency tiers.
IGMP	Internet Group Management Protocol; multicast subscription.
IP / UDP / RTP / RTSP	Stream delivery: IP network; UDP (no acknowledgements); RTP (media over UDP); RTSP (playback control).
ISDB-T	Japanese digital terrestrial TV standard.
J.83 A/B/C	ITU-T DVB-C variants (A – Europe, B – USA, C – Japan).
LCN	Logical Channel Number; channel position in the receiver's list.
Low Delay	Encoder mode that minimises the end-to-end latency from the encoder to the decoder.
MER	Modulation Error Ratio; signal quality, in dB.
MPEG-1 Layer 2 / MPEG-4	Audio / video coding standards.
MPTS / SPTS	Multiple / Single Program Transport Stream.
Multicast / unicast	Group (one-to-many) / addressed (one-to-one) delivery.
NIT	Network Information Table; network parameters (frequencies, modulation) used by receivers for scanning.
NMS	Network Management System; the device's web management interface.
NTP	Network Time Protocol; time synchronisation.
NTSC	National Television System Committee; analog colour-TV standard (M / J variants).
Null packet	Stuffing TS packet (PID 0x1FFF) used to keep a constant bit rate; can be filtered on output.
OSD	On-Screen Display; graphic overlay (logo / QR code).
PAL	Phase Alternating Line; analog colour-TV standard (B / D / G / H / I variants).
PCR	Program Clock Reference; timing reference for decoder synchronisation.
PID	Packet Identifier; addresses video / audio / data within a transport stream.
PID remapping	Reassigning output PIDs to avoid conflicts between streams.
PMT	Program Map Table; the PSI table listing a program's video / audio / data PIDs.
PSI / SI	Program Specific / Service Information; the signalling tables of a transport stream.
QAM	Quadrature Amplitude Modulation.
QPSK	Quadrature Phase-Shift Keying (DVB-T / ISDB-T).
RF	Radio-frequency output.
RS (204, 188)	Reed–Solomon forward error correction used in DVB.
SD	Standard Definition (e.g. 720×576i / 720×480i).
SDI	Serial Digital Interface; professional video.
Service ID	Service (channel) identifier within a transport stream.
SFP	Slot for an optical or copper transceiver.

Term	Description
Simulcrypt	Scrambling by several CA systems at the same time.
Symbol rate	Modulation symbol rate (Msps / Ksps).
Teletext	Teletext.
Transmission mode (2K / 4K / 8K)	Number of OFDM carriers (DVB-T / ISDB-T).
TS	Transport Stream; the MPEG-2 container for audio / video and signalling.
VCT	Virtual Channel Table; channel signalling used in ATSC / J.83B networks.