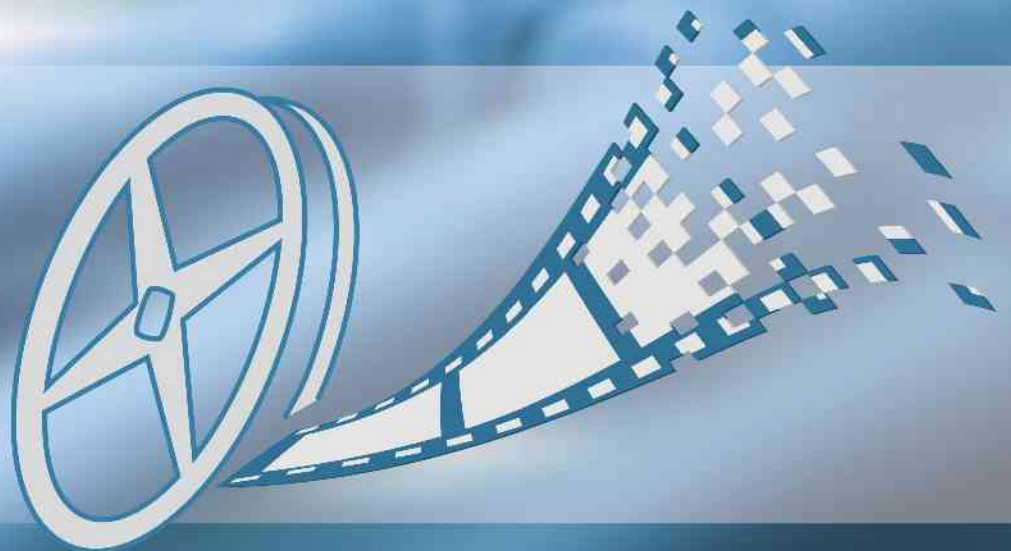
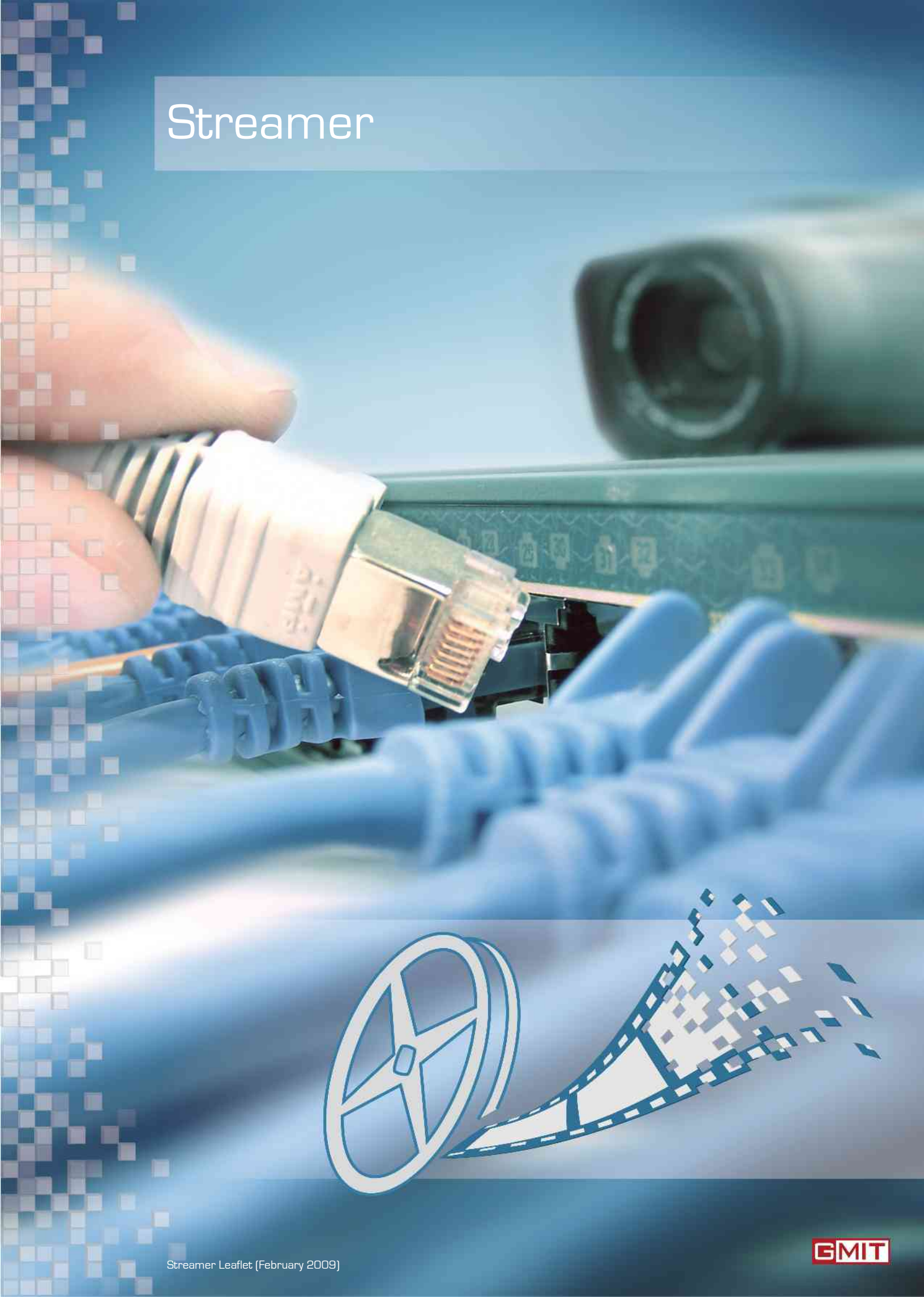


# Streamer



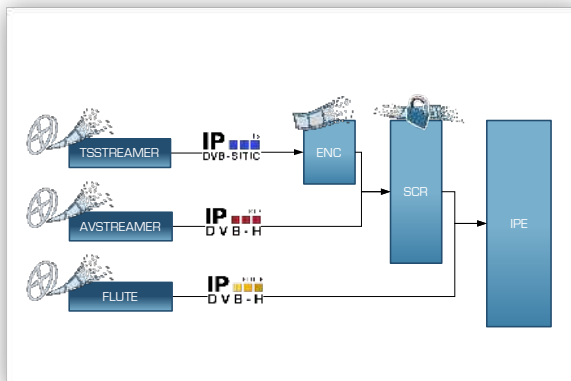
# Streamer

## DESCRIPTION

In the world of mobile TV and IPTV not only redistribution of “on-air” content is desired. Platform providers are also searching for a way to broadcast pre-produced “off-line” content, such as pre-encoded TV-shows or movies, localised commercials or even arbitrary additional binary data. Furthermore, the playout of these locally stored files has to be highly synchronized to the existing “on-air” signal to ensure that “off-line” content is presented at the intended point of time.

The GMIT Streamer products were designed to meet these requirements. They are provided with all features needed for DVB-H and IPTV, especially with the exact control of the playout start time, performance reliability and transparent setup of redundant solutions. GMIT Streamer products give you the control of your content on air at any time.

All GMIT Streamer products are also equipped with an internal redundancy module for seamless failover switching and recovery in multicast environments, in case that more than one GMIT Streamer is available.



## KEY FEATURES

Currently three different Streamers are available: AV-Streamer, TS-Streamer and FILE-Streamer (FLUTE). They all include the following key features:

- Playlist-functionality with NTP exact start and stop times
- Playout of up to 32 streams in parallel
- Support of single and loop playback mode
- Upload content manually using web-based UI or via direct HTTP input
- Capability to playout default data, in case that no input is available
- Failover solution with multiple Streamer products without external management system

## AV-STREAMER FEATURES

Beside the key features, the AV-Streamer provides the following enhanced functionality:

- Import and streaming of MP4/3GPP media files using RTP/UDP protocols
- Support of RTCP sender reports
- Variable and constant bit rate support using high-precision automatic bit rate calculation
- Optional stream protection by using FEC algorithms (RFC 2733) in combination with GMIT X-Bar UDP FEC

## TS-STREAMER FEATURES

Beside the key features, the TS-Streamer comes up with the following enhanced functionality:

- Import and streaming of MPEG transport stream files (SPTS or MPTS) files using UDP protocol
- Binding of pre-recorded content to overall statistical multiplex encoding
- Variable and constant bit rate support using high-precision automatic bit rate calculation
- Optional stream protection by using FEC algorithms (PRO-MPEG FEC) in combination with GMIT X-Bar UDP FEC

## FILE-STREAMER (FLUTE) FEATURES

Beside the key features, the FILE-Streamer has the following enhanced functionality:

- Import and streaming of arbitrary binary files using FLUTE/ALC protocol
- Setup of FLUTE specific parameters, e.g. TSI (Transport Session Identifier), Max. SBL (Source Block Length), ESL (Encoding Symbol Length)
- High-precision constant bit rate output
- Automatic or manual FDT (File Description Table) generation

## GMIT PRODUCTS

GMIT products provide highest service availability and are ready to run 24x7, proved in several commercial deployments. They are based on software-only components, which allow the use of regular PC-based server hardware. Even one server can host more than one GMIT product.

Due to its highly flexible software architecture and design, all GMIT products can easily be adapted. Customers are therefore flexible for future enhancements and upcoming standards and well prepared for individual integrations and customizations. This helps to reduce time-to-market and provides advantages compared to other vendors.



## TECHNICAL SPECIFICATION

### Input

#### STREAMER AV-STREAMER

- Pre-encoded MP4/3GPP media files

#### STREAMER TS-STREAMER

- Pre-recorded MPEG transport stream files (MPTS or SPTS)
- Service with PCR timestamps required for automatic bit rate calculation

#### STREAMER FILE-STREAMER (FLUTE)

- Arbitrary binary files with optional FDT instance

### Output

#### TRANSPORT LAYER

- IP version 4 unicast or multicast
- UDP (RFC 768 compliant)

#### AV-STREAMER SERVICE LAYER

- RTP media streams (RFC 3550 complaint)
- RTCP sender reports (RFC 3550 compliant)
- CBR or VBR with automatic bit rate calculation (depending on source material)

#### TS-STREAMER SERVICE LAYER

- MPEG single/multiple program transport stream (ISO/IEC 13818-1 compliant)
- CBR or VBR with automatic bit rate calculation (depending on source material)

#### FILE-STREAMER (FLUTE) SERVICE LAYER

- FLUTE file delivery stream (RFC 3926 compliant)
- ALC file delivery stream (RFC 3450 compliant)

### Additional Functionality

#### SYNCHRONIZATION

- Synchronization with NTP time server required for time-exact playout start and stop (RFC 1305 compliant)

### Redundancy

#### REDUNDANCY

- Built-in clustered service redundancy for seamless failover in multicast environments (requires 2 x Streamer)

### Administration and Monitoring

#### LOCAL

- Control: Console-based UI

#### REMOTE

- Control: Web-based UI and SNMPv2 Control
- Monitoring: Web-based UI and SNMPv2

### Hardware & System Requirements

#### HARDWARE REQUIREMENTS

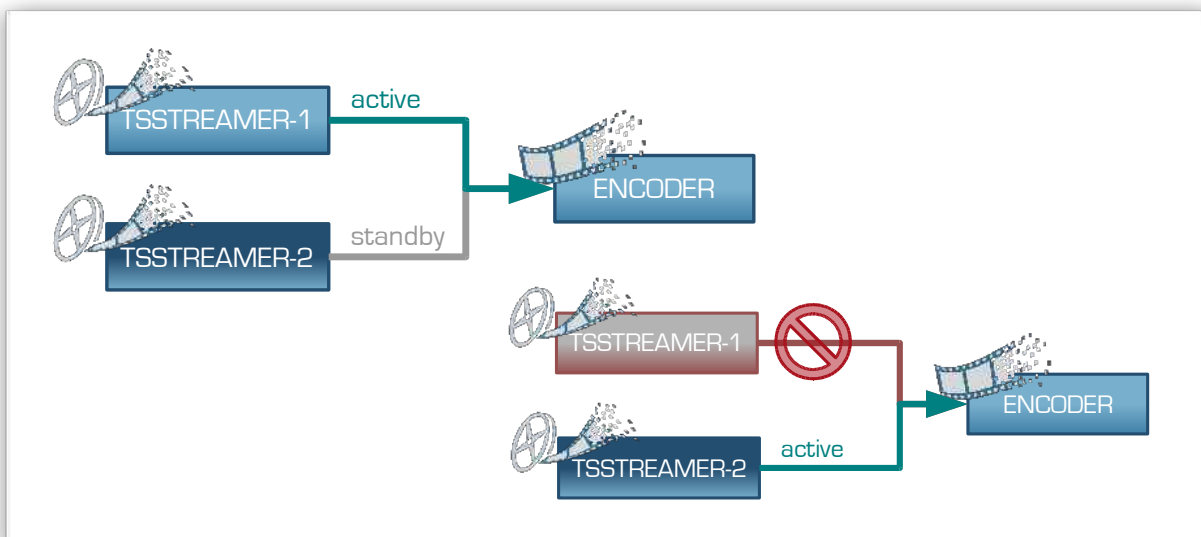
- CPU: 1x INTEL XEON Quadcore
- RAM: 4 GByte
- USB: Port for license key (alternative network connection to dedicated license server)

#### OPERATING SYSTEM

- Ubuntu Linux LTS 8.04 (Hardy) 32 bit server

#### SUPPORT

- Internet connection (FTP) necessary for easy installation (alternative installation possible)
- SSH connection for additional GMIT support



# Contact

## GMIT GMBH

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Germany

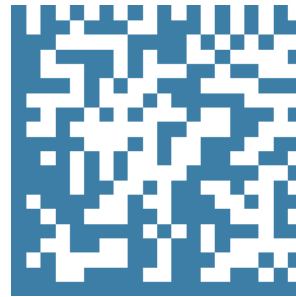
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E-MAIL: [info@gmit-gmbh.de](mailto:info@gmit-gmbh.de)

## GET MORE INFORMATION



## MORE GMIT PRODUCTS

### Broadcast Multiscreen Monitor



### Interactivity



GMIT is a component supplier providing headend technology and interactivity for digital and mobile broadcast. Our software products for stationary and mobile TV are optimized to satisfy the essential needs for reliability, economy and flexibility.