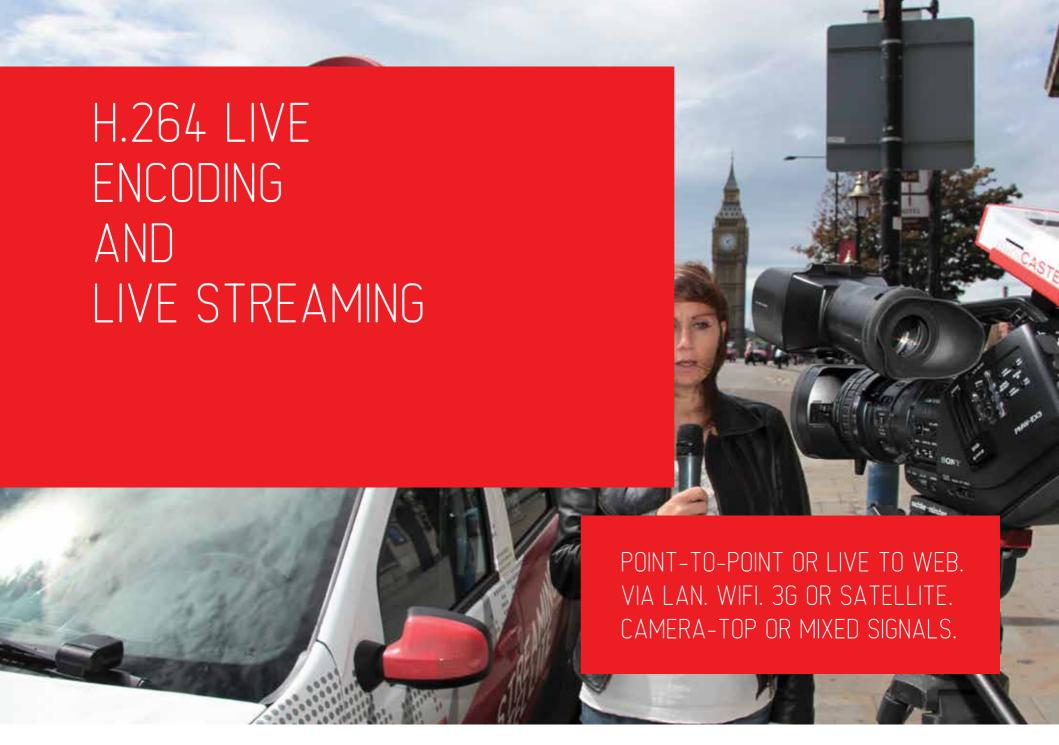


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# BROADCAST QUALITY SDI (SD/HD) MINICASTER®

FULL HD. DE-INTERLACER. 1080I/1080P. RTMP/RTP.



works to the leading Content Delivery Networks (CDNs),

The award-winning miniCASTER® is a truly mobile hardware Wowza, Adobe Media Servers and live video platforms like based H.264 live encoder that converts any camera or vi- USTREAM.TV. Through a built-in lithium-ion battery it is possible deo source signal into an IP based H.264/MPEG4 LIVE stre- to work stand-alone. miniCASTER® generates one HD and one SD am and delivers it via landline, WiFi, satellite or cellular net- stream in parallel and is able to record on SD-card in the device itself at the same time.

# SDI (SD/HD) H.264 MINICASTER®

The miniCASTER® SDI is the gateway to the broadcast world. With budget limits even in high professional environments, the SDI version provides full HD encoding capabilities in high quality for low cost. With only 7 watts/h the miniCASTER® is environment-friendly in 24/7 operation. In the field, the miniCASTER® is the perfect companion to professional broadcast cameras like Sony, JVC, Panasonic and more.

#### **TECHNICAL SPECIFICATIONS**







#### Video Resolutions

- \* 1920x1080p 60 (max ingest)
- \* 30/29,97/25Hz
- \* 1280x720p 60/59,94/50/30/29,97/ 25 Hz
- × 720x576i, 50Hz
- × 720x480i, 59.94 Hz

#### **Encoding Specifications**

- \* H.264 (MPEG-2, AVC Part 10, ISO/IEC 14496-101
- 1920x1080i 60/59,94/50Hz
   Supported profiles: base/main/
  - \* Supported levels: 1-4.1

#### De-Interlacing

× SDI-in models come with a integrated De-Interlacer and image \* low latency enabled enhancer

#### Video Encoding Bitrates

- 250Kb/s 8 Mb/s, CBR.

#### Stream Output

- MPEG2-transportstream)
- \* ISO/IEC 12818-1) encapsulated in RTP (RFC 3550)
- \* incl. audio (AAC) and video (H.264) or RTMP with limitations in bandwith [appr. 2 Mbit/s]







# TURN ACTION CAMS/DSLRS INTO LIVE CAMERAS

FULL HD. DE-INTERLACER. 1080L/1080P. RTMP/RTP.



When connecting your GoPro2 or GoPro3, Contour+ or any other live-out enabled HDMI® action camera to miniCASTER®, you will have a full HD LIVE video source with a great set of possibilities!

Through our remote management you are able to control your LIVE stream wherever you have internet. You can also use on miniCASTER®'s local web interface once you have connected to your local network.

Starting/stopping the stream, changing your input signal type, output bandwith, resolution, cropping etc. is right there at your fingertips. Just use the HDMI® out connector of your DSLR and go LIVE!



# HDMI® HD H.264 MINICASTER®

TECHNICAL SPECIFICATIONS



HDMI® connector type A





#### Video Resolutions

- 1920x1080p 60p (max ingest) 30/29,97/25/24/23,97Hz
- \* 1920x1080i 60/59,94/50Hz
- \* 1280x720p 60/59, 94/30/29, 97/25/24/23, 97 Hz
- \* 720x576p 50Hz
- × 720x576i 50Hz
- \* 720x480p 59,94Hz
- × 720x480i 59.94Hz

- \* 640x480p 59,94Hz60/59,94 /30/29,97/25/24/23,97Hz
- \* 720x576p 50Hz
- \* 720x576i 50Hz
- \* 720x480p 59,94Hz
- \* 720x480i 59.94 Hz
- \* 640x480p 59,94 Hz

#### **Encoding Specifications**

- \* H.264 (MPEG-2, AVC Part 10, ISO/ IEC 14496-10)
- \* Supported profiles: base/main/high
- \* Supported levels: 1-4.1

#### De-Interlacing

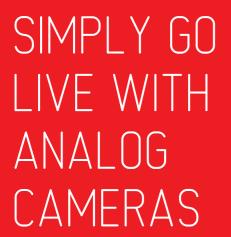
 SDI-in models come with a integrated De-Interlacer and image-enhancer

#### Video Encoding Bitrates

 $\times$  250Kb/s - 8 Mb/s, CBR, low latency enabled

- \* MPEG2-transportstream )ISO/IEC 12818-1) encapsulated in RTP (RFC 3550)
- \* incl. audio (AAC) and video (H.264) or RTMP with limitations in bandwith [appr. 2 Mbit/s]









# ANALOG H.264 MINICASTER®

miniCASTER® analog - LAN + WiFi (Y, Y/C-IN, 2 ch analog audio input) incl. onboard recording for 100% safety + MPEG-transportstream + multicast. The ideal companion for any kind of analog camera. miniCASTER® will generate a perfect SD H.264 stream and enables you to deliver this stream via LAN, WiFi, 3G/4G stick plugged to the USB port. The lithium battery allows you to stream truly mobile for up to 30 min.

#### TECHNICAL SPECIFICATIONS





#### Video Resolutions

- × 720x576i, 50Hz
- 720x480i, 59,94 Hz

#### **Encoding Specifications**

- \* H.264 (MPEG-2, AVC Part 10, ISO/IEC 14496-10)
- Supported profiles: base/main/high
- \* Supported levels: 1-4.1

#### Video Encoding Bitrates

250Kb/s - 8 Mb/s, CBR, low latency enabled

#### Stream Output

 MPEG2-transportstream) ISO/IEC 12818-1) encapsulated in RTP (RFC 3550) incl. audio (AAC) and video (H.264) or RTMP with limitations in bandwith (appr. 2 Mbit/s)





# miniCASTER® CONNECTIONS



All miniCASTER® top shot showing the Ethernet RJ45 port for landline connections



miniCASTER® analogbottom shot showing the composite/ audio-in mini-jack and molex locking power connector



miniCASTER® SDI bottom showing the SDI (SD/HD) input connector (audio embedded)



All miniCASTER® top shot showing the USB Port for WiFi sticks and 3G sticks



miniCASTER® HDMI bottom shot showing the HDMI® type A input connector (audio embedded)



miniCASTER® analog bottom showing the S-Video input connecotor



## MODEL OVERVIEW

#### ANALOG



#### TECHNICAL SPECIFICATIONS

#### Video Resolutions

- \* 720x576i, 50Hz
- \* 720x480i 59.94 Hz

#### **Encoding Specifications**

- \* H.264 (MPEG-2, AVC Part 10, ISO/IEC 14496-10)
- \* Supported profiles: base/main/high
- \* Supported levels: 1-4.1

#### Video Encoding Bitrates

 250Kb/s - 8 Mb/s, CBR, low latency enabled

#### Stream Output

- \* MPEG2-transportstream )ISO/ IEC 12818-1) encapsulated in RTP (RFC 3550)
- \* incl. audio (AAC) and video (H.264) or RTMP with limitations in bandwith (appr. 2 Mbit/s)

#### Video Resolutions

- \* 1920x1080p 60p (max ingest)
- \* 30/29,97/25Hz
- \* 1920x1080i 60/59,94/50Hz
- \* 1280x720p 60/59,94/50/30/29,97/25 Hz \* Supported levels: 1-4.1
- \* 720x576i, 50Hz
- × 720x480i, 59.94 Hz

#### **Encoding Specifications**

- \* H.264 (MPEG-2, AVC Part 10, ISO/IEC 14496-10)
- \* Supported profiles: base/main/high

#### Video Encoding Bitrates

\* 250Kb/s - 8 Mb/s, CBR, low latency enabled

#### Stream Output

TECHNICAL SPECIFICATIONS

- \* MPEG2-transportstream )ISO/ IEC 12818-1) encapsulated in RTP (RFC 3550)
- \* incl. audio (AAC) and video (H.264) or RTMP with limitations in bandwith (appr. 2 Mbit/s)



#### **HDMI®**

#### SDI



#### TECHNICAL SPECIFICATIONS

#### Video Resolutions

- 1920x1080p 60p (max ingest)
- \* 30/29,97/25Hz
- \* 1920x1080i 60/59,94/50Hz
- \* 1280x720p 60/59,94/50/30/29,97/25 Hz
- × 720x576i, 50Hz
- × 720x480i, 59,94 Hz

#### **Encoding Specifications**

- \* H.264 (MPEG-2, AVC Part 10, ISO/ IEC 14496-10)
- \* Supported profiles: base/main/high
- Supported levels: 1-4.1

#### Video Encoding Bitrates

\* 250Kb/s - 8 Mb/s, CBR, low latency enabled

#### Stream Output

- MPEG2-transportstream) ISO/ IEC 12818-1) encapsulated in RTP (RFC 3550)
- \* incl. audio (AAC) and video (H.264) or RTMP with limitations in bandwith (appr. 2 Mbit/s)







SIDE GEAR FOR FULL PERFORMANCE: MOUNTING KITS. POWER SUPPLIES. ADAPTER CABLES. WIFI-STICKS.



# miniCASTER® supports you at your daily production.

#### We provide:

- Two different camera mounting kits to install on hot shoe adapters
- Adapter cables to get the power from your camera to your miniCASTER®
- Wi-Fi sticks with more power and 5 Ghz (less frequented band)
- Power supplies



# MODEL-OVERVIEW



Adapter cable hirose to D-Tap for batteries like Anton Bauer, ID-x, SWIT and devices with D-Tap connector



Camera Mounting Kit (Hot shoe). Camera-top position possible. Comes in "hot chilli" red color and with hot shoe adapter + screw



Audio cable 3,5mm (1/4') mini-jack



Adapter cable hirose to Lemo for cameras like ARRI





The Cage - two-piece universal genius with 3 x 3/8" threads, functions as safety box and camera mounting device for hot shoe cameras and the famous GoPro Hero





Adapter cable hirose to hirose for cameras like Panasonic and Sony

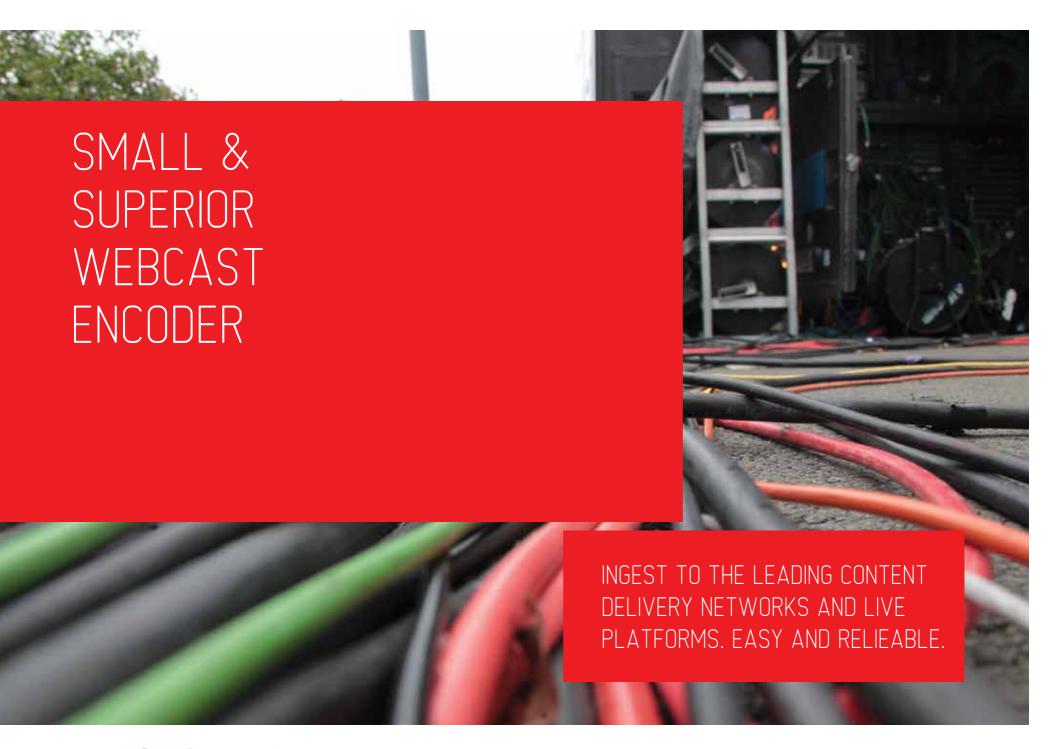
Power supply digital units 8-24V DC / 2A (SD/HD SDI/HDMI - molex locking connector)



This optional certified dual band **WiFi stick** enables you to work with a reliable stick that can transmit on 2.4 GHz and 5.0 GHz









# COMPATIBLE CDNS AND LIVE PLATFORMS





















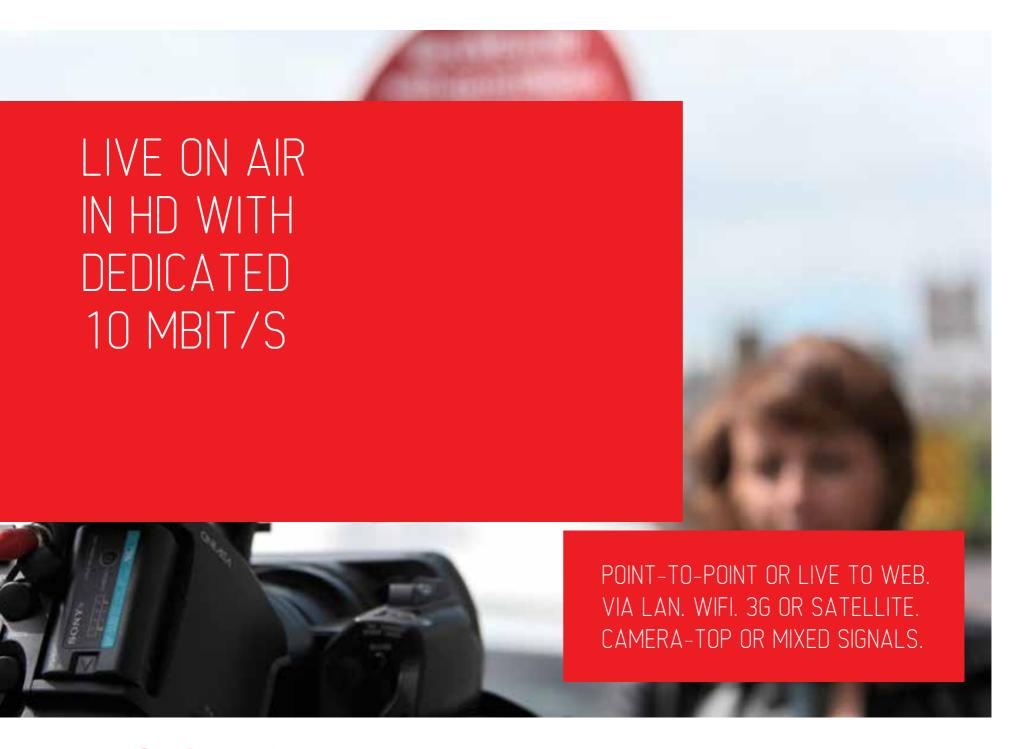
Go LIVE with the push of a single button: miniCASTER® enables you to encode and transmit your video signal to the leading content delivery networks like Akamai, Limelight, Level (3), Amazon CloudFront or TV1.EU. If you don't use one of these CDNs, you can ingest directly to USTREAM. TV, Livestream.com and Justin.tv. These live platforms allow you to broadcast live incl. rich media features like live chats for a very small budget.

Plus: during our worldwide promotional roadshows and exhibitions we talked to hundreds of broadcasters and webcasting professionals. The result: miniCASTER® works in almost any application you can imagine.

Through the easy user interface of our legendary remote management portal "my.minicaster.com", you can control a single or even multiple units from any PC with internet connection. By working with the included user management, you can allow camera crews to work stand alone with the system.

When it comes to Video-on-Demand (VoD) miniCASTER® is the perfect companion, since you can record on SD and USB card while you are streaming LIVE. After your LIVE session you can publish the recorded files directly as VoD version of your press conference or meeting etc.





# AFFORDABLE SATELLITE UPLINK? YOU GOT IT!

# A Spotter powered by KA-SAT

Together with our partners at Eutelsat we provide different satellite uplink solutions using NewsSpotter KA-Band and high performance modems. Our systems enable you to go LIVE in full HD using a dedicated bandwith now up to 20 Mbit/s\* for up- and download, starting from 50 EuroCent a minute!

#### You can choose between:

- Fixed wall mount units
- Fly-away units
- Car units

#### GO LIVE ALMOST EVERYWHERE, ANYTIME!

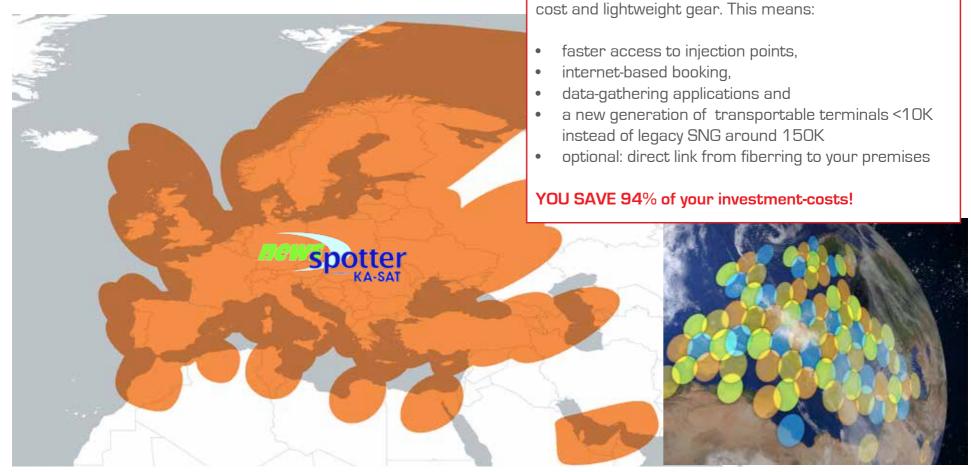
#### These are the outstanding benefits:

- Dedicated bandwith constant upload up to 20 Mbit/s \*
- High-quality@low-cost broadcasting with up to 94% cost reduction
- Fast deployment via auto- / semi-autopointing
- Mountable on the roofbar of a car
- comes with Antenna controller & motor, modem, WIFI-router, tria,
   feedarm and dish
- Book airtime online save on project management costs

\* starting 2014 -before: 10Mbit/s



# GEOGRAPHIC KA-BAND COVERAGE



**DID YOU KNOW?** 

NewsSpotter KA-SAT Services offer you a Europe-wide low-cost video contribution service for SNG using low

The Eutelsat KA-Satellite is positioned at 9 degrees East and covers Central Europe and parts of North Africa and Middle East. It was launched in 2010 and has a capacity of 90 Gigabit/s with 82 beams. Signals are downlinked in seven different earth stations. The earth stations are linked together via a fiber ring. From the fiber ring the data is sent to the cloud. Or you use the direct link service, where your data is forwarded to your premises via fiber directly.



# FI Y-AWAY AND FIXED UNIT



The miniCASTER® fly-away satellite uplink unit fits in any trunk and is built up in only seven minutes. Your benefit: independence

Your smartphone (that comes with the dish) does the auto pointing job for you and ma-

upload bandwith of up to 10 Mbit/s (Downlink-Speed: 10 Mbit/s) - to LIVE in full HD.

You can also upload footage material via FTP or connect your crew's smartphones via WIFI on set. Or just use the unit as mobile WIFI Hotspot.

For the required ON AIR time, you just have to book your airtime package with us. You only pay what you need to broadcast LIVE!

And it's so simple: The antenna controller automatically directs the antenna to the satellite by the push of 2 buttons only.

**Smartphone** 

Advanced modem 10Mbit/s

**WaSat** 

# SATELLITE UPLINK NEWSSPOTTER CAR UNIT

Now affordable - Your D-SNG using KA-Band by Eutelsat, guarantees you dedicated up to 10Mbit/s upstream bandwith and can also be used as local High-Speed WiFi network when connected.

Besides, you can ride fast with our miniCASTER® satellite uplink car unit: it is rock solid and can be folded away. This allows you to drive with up to 160 km/h.

Plus: you enjoy a very fast deployment for finding the satellite and getting online. The unit uses a 2x mini joystick-remote allowing you to do manual motorized pointing. By turning down the motorspeed knob, the whole process incl. fine-pointing

can be done in approx. 2 minutes. Another 2 minutes for network

entry and you are on AIR.







## SATELLITE UPLINK UNITS - PRODUCT OVERVIEW



#### **BASIC UNIT**

#### Manual pointing

miniCASTER® satellite uplink basic unit is for installations on walls or roofs in rural areas, where broadband connectivity is hard to get:

The installation takes about 30 minutes. Once this is done, you are able to stream up and down with up to 10 Mbit/s.

FTP or typical Internet browsing is possible, too. You can also send from a Fly-away or car unit to a fixed unit. The data takes the shortest way and delay will be at minimum.

#### What's inside:

- 6 Mbit or 10 Mbit modem
- Feedarm and tria
- Dish
- Wall-mount

#### FI Y-AWAY UNIT

#### Auto pointing

miniCASTER® satellite uplink fly-away unit is your mobile gateway to the broadband world:

It comes with a auto-pointing app and takes 7 minutes to get on AIR.

Once you are connected, you have fully featured high speed broadband internet connection of the basic unit to start your production.

#### What's inside:

Basic unit +

- Flightcase
- Tripod
- Motor
- Smartphone
- Cable-extender







#### NEWSSPOTTER CAR-UNIT

#### Motorized pointing

miniCASTER® satellite uplink car-unit is the best solution for professional results.

It is installed on a car, a van or a SUV and folds away the antenna safely, when not in use.

You connect to the satellite by motorized pointing via joystick very fast and easy - 4 min. only!

#### What's inside:

Basic unit +

- Motor
- Frame
- Windshield
- Joystick remote control
- Cables



# MINICASTER® AIRTIME AND STREAMING PACKAGES





Datatransfer over the internet via satellite - based NewsSpotter service. Feed your company/TV station or to TV1 's CDN. Online booking. Pay what you stream. 20 GB = 33 hrs SD Quality at 1,5 Mbit/s (€ 0,65/minute) 12,5 hrs HD Quality at 4 Mbit/s (€ 1,70/minute)



Datatransfer over the internet via satellite
- based NewsSpotter service. Feed your company/TV station or to TV1´s CDN. Online booking. Pay what you stream. 50 GB = 66 hrs SD Quality at 1,5 Mbit/s (€ 0,65/minute)

## REACH



Reach mobile devices working on iOS and Android with this all-inone CloudTranscoding & Streaming package for PCs, tablet PCs and smartphones, but also flash enabled devices.

### **STREAMING**



10 TB = 2,5 million viewing minutes at 550 kbit/s bandwith, but you can choose any bandwith you want. You can use your own online video player or book our Live Flash Video Player.



viewing minutes at 550 kbit/s bandwith, but you can choose any bandwith you want. You can use your own online video player or book our Live Flash Video Player.



50 TB = 13 million viewing minutes at 550 kbit/s bandwith, but you can choose any bandwith you want. You can use your own online video player or book our Live Flash Video Player.



# FUTURE-SAFE INVESTMENT: MINICASTER® SDI - RECEIVER/DECODER



# MINICASTER® LOW LATENCY SDI RECEIVER/DECODER



The miniCASTER® receiver/decoder is the most powerful all-in-one broadcast-webcast-recording solution out there: all hardware and software expansions are built in already: you´re just a phone-call or email away to get all the other features such as 2x SDI-out, relay, transcoding, failover, live transcoding and access control "activated" via the internet.

#### STANDARD FUNCTIONS:

- Easy to configure via display and keypad
- Control via front panel and web-interface over network
- Backup settings and software upgrade via internet
- Receives up to 6x video streams from different units and different locations
- Automatically scales input streams in different formats into selected output format (SD or HD)
- Test picture can be customised
- Interface can be used for control, support or similar
- Double LAN, double network interfaces, one network.
- Optional redundant power supply
- Black burst sync in





# UPGRADE FEATURES TO MATCH YOUR NEEDS!

#### Start out with the basic 1x SDI-out and expand whenever you want.

2ND SDI-OUT	The 2nd SDI-OUTactivation is just a phone-call or email away and will be done remotely.  When used with the relay-functionality, the 2nd SDI-out can be used for multiviewing of up to 6x incoming IP-streams.
RELAY FUNCTION	RELAY is a very powerful strategic TS-stream distribution feature allowing to manage up to 6x IP-streams at the same time: TS-streams from several encoders as well as from a playout server/backup-server. Any incoming stream can be forwarded to any LAN or WAN destination as unicast or multicast using TS-UDP/TCP/TCP-on-request. Applications: studio-links, satellite-uplink-contribution, CDN-proxy-recording-contribution links, inhouse previewing etc.
FAILOVER SWITCHING	FAILOVER is used as an extension to the relay-functionality allowing you to do a failover-switching from 2x TS-stream, for example from a playout-server #1 to playout-server #2 in a LAN to save bandwidth for long distance IP-links. If bandwidth is available the failover can be used for long distance links for 2 streams in parallel from relay #1 to relay #2.
TRANSCODING OPTION	With the miniCASTER® receiver TRANSCODER, the broadcast and the webcast world are no longer separate. Any broadcast feed such as 720p50 or 1080-stream can be transcoded to an rtmp-stream (e.g. 768x432, 25fps at 1Mbit/s) to meet any CDN requirement (content delivery network) for webcasting.
ACCESS CONTROL	ACCESS CONTROL is used to authorize only a certain sender-IP-address to send a unicast/multicast TS-UDP/TCP-stream to the receiver/relay. Especially useful when giving the miniCASTER® out of hand.



# TECHNICAL SPECIFICATIONS

Digital out SDI embedded	SMPTE 259M, SMPTE 272M	
Digital out	SMPTE292M	
HD-SDI	SMPTE 299M	
Digital video in MPEG2	MPEG2 video (ISO-IEC 13818-2	
	MP@ML, MP @HL, HP@ML	
	HP@HL (4:2:0 ) 422@ML, 422@HL (4:2:2)	
Digital audio in	MPEG1 audio layer 2 (ISO/IEC 11172-3)	
	AAC (ISO/IEC 14496-3:2005	
	MAIN	
Transport in	MPEG2-TS over IP (ISO/IEC13818-1	
	UDP and TCP	
Dimensions (without removable rack brackets) 19"	Fits in 19" rack (1 height unit)	
425 x 380 x 45 (w x d x h)		
Weight	appr. 7 kg	





ALL YOU NEED TO BROADCAST LIVE

THE MINICASTER® BROADCAST STARTER PACKAGE

#### SDI Live Encoder/Recoder

- > multi-unit remote management
- > user rights management
- > de-interlacer



\_\_\_\_

#### Receiver/Relay-Receiver/Decoder

- > 1 or 2 SDI-out
- > Relay/failover/transcoder
- > Software key activation of all features





- > Small Size, ready in 4 minutes
- > Guaranteed bandwith up to 6/10Mbit
- > Full duplex IP-connection for file-transfer etc.





#### THE MINICASTER® BROADCAST STARTER PACKAGE - SPECS



The miniCASTER® Encoder is a mobile hardware based H.264 live encoder that converts any camera or video source signal into an IP based livestream and delivers it via landline, WiFi, satellite or cellular networks to the leading Content Delivery Networks and video platforms. miniCASTER® generates one HD and one SD Stream in parallel, is able to record at the same time and can be operated in real-time via a web-based remote management portal. At a glance:

- Live-Streaming from all types of SDI-Cameras also wireless via Wi-Fi or UMTS (3G)
- SD-/HD resolution up to 1080-30p recording at the same time on SD-card
- Point-to-point signal transmission via Internet Push to a PC with DVI out
- Signal transfer possible from almost everywhere eg. with a smartphone as Wi-Fi hotspot



A dedicated bandwith is now finally affordable - Your D-SNG using KA-Band by Eutelsat, guarantees you dedicated up to 10Mbit/s upstream bandwith for under 0,50 €/minute and covers Europe, North Africa, and parts of Middle East. No technical skills are required to establish a connection and you only need 80 sec for finding the satellite and 4 min. for getting online:

- Small size, super-fast deployment / Motorized pointing system (joystick control) with dish rotation of more than 360°
- Quick alignment to the Ka-SAT satellite (eutelsat), located at 9° EAST through simple graphical user Gigabit interface
- Data transfer: Modem BASE 10 Mbps download/6 Mbps upload or optional: Modem Pro 20 Mbps download/10 Mbps upload
- · Low power consumption with only vehicle battery for immediate use



The miniCASTER® SDI Receiver is the perfect solution for a very cost-effective way of signal contribution in SD or HD quality. It can be managed easily over an web-interface and can be upgraded easily with important functionalities via software applications, like dual channel, relay, failover and transcoding. It can be installed in a 19" rack with all connectors on the rear side.

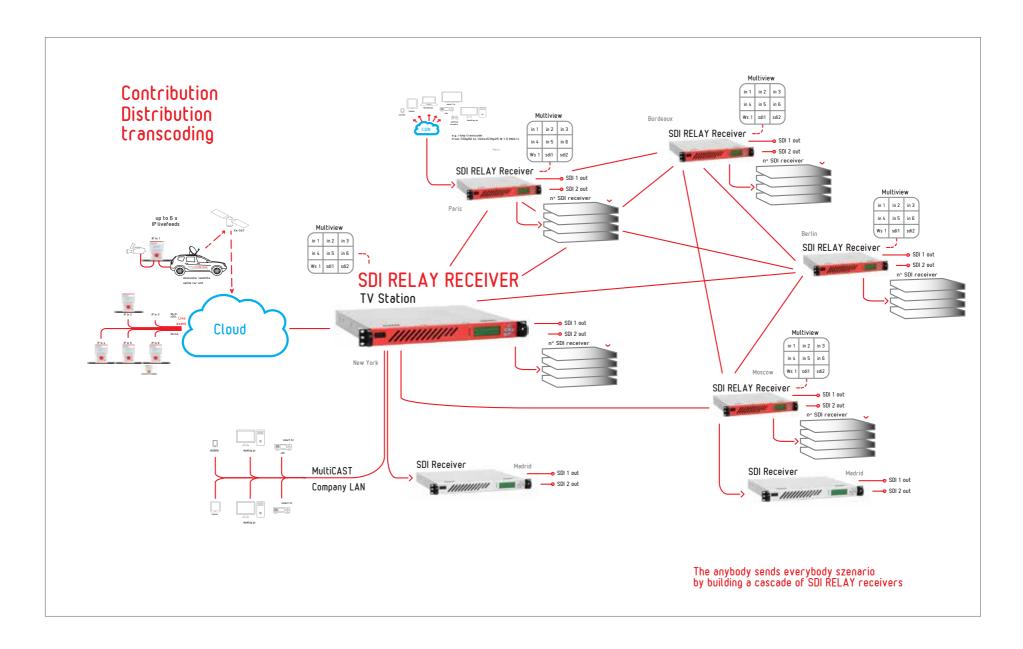
- Relay to unlimited receivers (optional)
- Easy to configure via display and keypad
- Can receive video streams from a number of different units from different locations (Black burst sync in)
- Automatically detects incoming stream types (MPEG/ H.264) and scales them into selected output format (SD/HD)

WWW.MINICASTER.COM

WWW.FACEBOOK.COM/MINICASTER
WWW.TWITTER.COM/MINICASTER
WWW./PLUS.GOOGLE.COM/MINICASTER



## THE ANYBODY SENDS EVERYBODY SCENARIO





# GOING LIVE THE SMARTER WAY

