

# miniCASTER®

Live Streaming as easy as a phone call

## USER MANUAL



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# miniCASTER®

## 1. Introduction

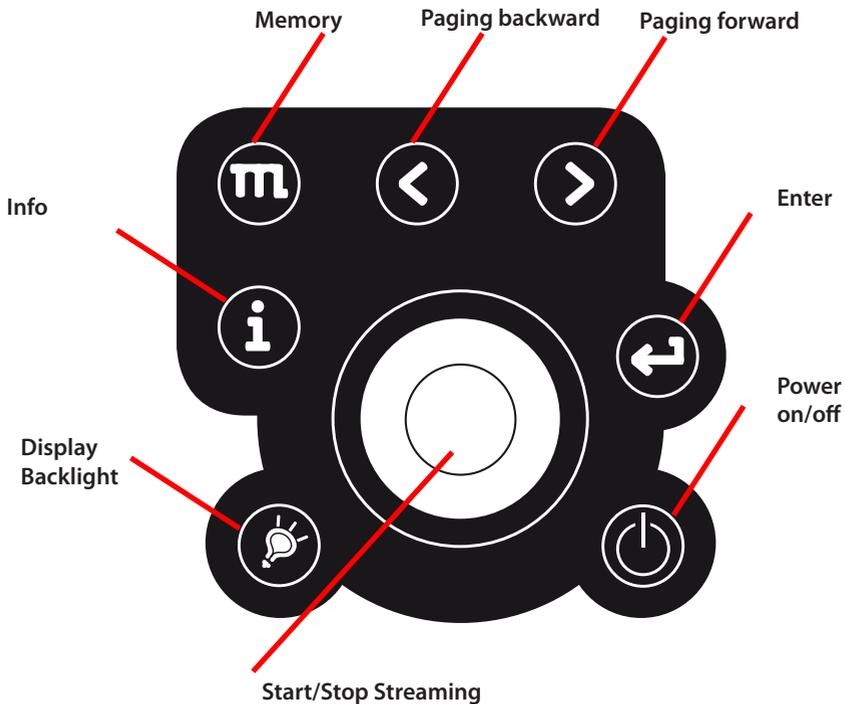
Thank you for purchasing the miniCASTER. This User Manual will show you how to handle the device.

### What is miniCASTER®?

miniCASTER® is a truly mobile hardware based H.264 live encoder that converts any camera or video source signal into an IP based H.264/MPEG4 Live stream and delivers it via landline, WiFi, satellite or cellular networks to the leading Content Delivery Networks (CDNs) , Wowza and Adobe Media Servers and live video platforms like USTREAM.tv.

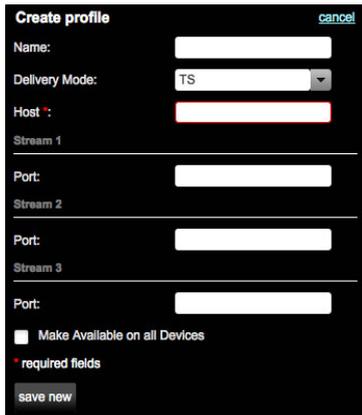
Through a built-in lithium-ion battery it is possible to work stand-alone. miniCASTER® generates one HD and one SD Stream in parallel and is able to record on SD-Card in the device itself at the same time. The mobile live encoder in pocket size comes in three different versions (SDI-in, HDMI-in, Composite-in) and can be operated in real-time via a web-based remote management portal and/or local interface. The HDMI and SDI version come with a DE-Interlacer on board. So your interlaced signals get a smooth look. Since miniCASTER® is passively cooled it can get quite warm. This is normal and should not bother you at all.

### The On-Board menu



# One-to-One Broadcasting

## Why not start with a local LIVE stream straight to your PC/VLC Player?



With miniCASTER® you can establish a quick and cheap One-to-One connection between your PC/ Notebook and your miniCASTER®. Please make sure to use a port that is not used on the pc and not blocked by a firewall. Then choose TS as Delivery Mode Profile. This profile needs the Host address of the PC and up to three free ports.

After that you are able to decode the stream on your PC with the VLC player. Therefore please start the player, click on „open network stream“ and type in a URL like: `udp://@:<portnumber>*`.

## Connections

### 2. Connections



#### Top side (All models)

1. LAN Connector
2. For future use
3. USB Slot (for WiFi, 2G/3G Stick or Memory Stick)
4. Reset button



#### Bottom side (Analog SD model)

1. S-Video Input
2. Tripod mount
3. Optional Analog Audio Input
4. Power Input (Micro USB)

4

\*Please note that Delivery mode TS is only available from Firmware 1.3.1 or higher. (The port number could be 7000 or 10000. You will find further infos for this scenario in chapter 4.1.7 Delivery Profiles)

# Connections



## Bottom side (HDMI® SD/HD model)

1. HDMI® Input
2. Optional Analog Audio Input
3. Power Input (Hi-Rose)



## Bottom side (SDI SD/HD model)

1. SDI Input
2. Optional Analog Audio Input
3. Power Input (Hi-Rose)



## Left side (All models)

1. SD Card slot for Recording



\* via break-out cable

# Production Scenarios

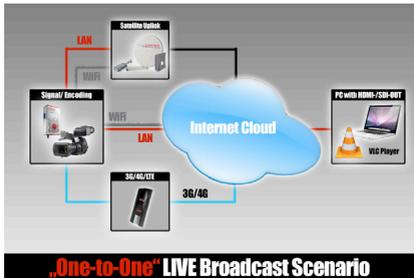
## 3. Production Scenarios

Thank you for purchasing the miniCASTER®. This User Manual will show you how to handle the device. miniCASTER® enables you to stream to a single destination or to many viewers and this is what your set-up should look like for these production scenarios:

For streaming to a single destination you need a decoder, where the miniCASTER® pushes the stream to. For streaming to many, you need a server like a Wowza Media Server or a Adobe Media Server in between. Companies like Akamai and Limelight offer a full streaming service.

Before you can start with any miniCASTER®, every device must be registered under my.minicaster.com first.

### One-to-One



### One-to-Many



## You are only 6 steps away from going LIVE!

1. Connect your miniCASTER® to the power supply unit
2. Connect your miniCASTER® to your network via LAN cable (DHCP must be available)
3. Push the Power-Button  and wait until the boot sequence has ended
4. Press the Info-Button , go to “Show network status” and press . Flip through the menu by pressing the   buttons and double check your valid IP address
5. Press the Info-Button , go to “Show system info” and press . Flip through the menu by pressing the buttons   and note the displayed and unique registration code
6. Go to <https://my.minicaster.com>. Create an account\* and register your miniCASTER®. You are all set!

# Technical Specifications

## 4. Technical Specifications

miniCASTER® is a MPEG-4 AVC H.264 SD/HD mobile encoder family – it comes in three different versions: miniCASTER® analog, miniCASTER® HDMI® and miniCASTER® SDI.

### Supported Features

SD Resolutions (Analog, HDMI®, SDI models)

HD Resolutions (HDMI®, SDI models)

Composite Video Input/RCA connector\* (Analog, HDMI®, SDI models)

S-Video Input / mini-DIN connector (Analog model)

HDMI® Input (HDMI® model)

SDI Video Input w/ embedded Audio / BNC connector (SDI model)

Stereo Analog Audio input / RCA connector\* (Analog, HDMI®, SDI models)

Rechargeable Battery Li-Ion (Analog, HDMI®, SDI models)

Hardware De-Interlacer and Image Enhancer (HDMI®, SDI models)

### Signal-Input Specifications:

**SD/HD/3G-SDI:** 0.8 VP-P, 75 Ohm (BNC, embedded audio support / SMPTE259M, SMPTE292M, SMPTE424M)

**HDMI:** Type C, HDMI specification 1.1

**Composite:** 1 VP-P, 75 Ohm

**S-Video:** 1 VP-P (Y), 0.3 VP-P (C – Pal), 0.286 VP-P (C – NTSC), 75 Ohm

### Video standards:

PAL, NTSC / Video resolutions:

1920x1080p 30/29.97/25Hz, 1920x1080i 60/59.94/50Hz, 1280x720p 60/59.94/50/30/29.97/25Hz, 720x576i 50, 720x480i 59.94

### Audio Inputs:

Stereo: unbalanced, AC coupled,

Audio nominal level: -10 dBV (0,316Vrms),

Maximum level: 2 VP-P, Microphone nominal level: -60 dBV (1mVrms)

SDI embedded Audio 2CH: SMPTE 272M, SMPTE 299M

HDMI embedded Audio 2CH: HDMI 1.1. compatible audio interface

### Encoding Specifications:

H.264 (MPEG-4 AVC Part 10; ISO/IEC 14496-10)

Supported profiles: Baseline, Main-, High-; supported levels: 1.- 4.1.

### De-Interlacing:

HDMI-in + SDI-in models come with a intergrated De-Interlacer and image enhancer

### Video Encoding Bitrates:

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

### Audio Encoding:

MPEG-4 AAC LC (ISO/IEC 14496-3)

# Technical Specifications

## 4. Technical Specifications

### Supported Sample Rates:

16/22.05/32/44/48 kHz (analog Audio) / 48kHz(SDI Audio, 16Bit Sample Rate, 16-128 kbit data rate)

### Stream Output:

MPEG2-Transportstream (ISO/IEC 13818-1) encapsulated in RTP (RFC 3550) including Audio (AAC) and video (H.264) or RTMP with limitations in bandwidth (appr. 2 Mbit/s)

### I/O Specifications Network:

10/100TX Ethernet, RJ45, half/full duplex, auto-sensing

### Streaming Traffic:

Unicast and Multicast traffic supported

### USB:

1x USB 2.0 (on board Connector), High Speed, Type A socket

### Management:

Full monitoring, Updates and maintenance over web based repository service (<https://my.minicaster.com>)

### Environmental Agency Approvals:

CE, FCC , RoHS

### Humidity:

Up to 90%, non-condensing

### Temperature:

0 to +35°C environment temperature, fanless

### Weight:

260 grams (SD Analog), 360 grams (SD/HD SDI or HDMI)

### Dimensions (H/W/D):

75mm x 125mm x 33mm

### Power:

5V DC / 2.1 A (SD Analog – Micro USB), 8-24V DC / 2A (SD/HD SDI/HDMI – Molex locking connector)



# Encoding & Recording

## 5. Maximum Encoding Values

Resolution	Bandwidth	Frames	Network	Delivery	Record	3 Streams parallel	2 Streams parallel	H.264 Level
1280x720	6 Mbit/s	25	WiFi	RTP/TS	NO	NO	NO	4.1 High
1280x720	4 Mbit/s	50	WiFi	RTP/TS	NO	NO	NO	4.1 High
1280x720	3.5 Mbit/s	25	WiFi	RTP/TS	YES	NO	NO	4.1 High
1920x1080	3 Mbit/s	24	WiFi	RTP/TS	NO	NO	NO	4.1 High
768x432	2.5 Mbit/s	25	WiFi	RTP/TS	NO	NO	NO	4.1 High
768x432	2 Mbit/s	25	WiFi	RTP/TS	YES	NO	YES	4.1 High
768x432	1 Mbit/s	25	WiFi	RTP/TS	YES	NO	NO	4.1 High
1920x1080	6 Mbit/s	25	LAN	RTP/TS	NO	NO	NO	4.1 High
1280x720	4 Mbit/s	25	LAN	RTP/TS	YES	NO	NO	4.1 High
768x432	3 Mbit/s	25	LAN	RTP/TS	YES	YES	YES	4.1 High
1280x720	2.5 Mbit/s	25	LAN	RTMP	NO	NO	NO	4.1 High
768x432	2 Mbit/s	25	LAN	RTMP	YES	NO	NO	4.1 High
768x432	1 Mbit/s	25	3G	RTMP	Valu	NO	NO	4.1 High

\* Only one quality can be recorded at the same time!

\* 3G: Depends on quality of your Provider-Network

### Multi Stream Table I

Resolution	Bandwidth	Frames	H.264 Level	Recorded
768x432	3 Mbit/s	25	4.1 High or <	YES
640x360	1.5 Mbit/s	25	4.1 High or <	NO
512x288	750 Kbit/s	25	4.1 High or <	NO

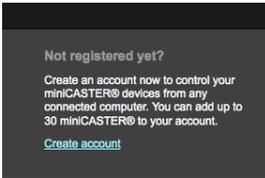
### Multi Stream Table II

Resolution	Bandwidth	Frames	H.264 Level	Recorded
768x432	2 Mbit/s	25	4.1 High or <	YES
640x360	1 Mbit/s	25	4.1 High or <	NO

# Remote Management

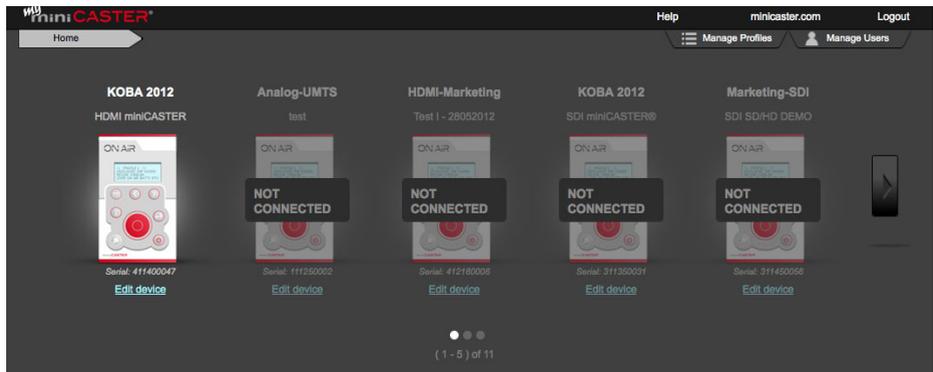
## 6. Remote Management

my.minicaster.com - Your web based real time operating platform.



The first thing to do, before you can start working with the Remote Management website is to create an account. After this is done, you can log in to my.minicaster.com and start registering your miniCASTER®. You can register more than one device with one account.

After logging in to my.minicaster.com, you will enter this page. Now you are able to manage profiles or users, browse and edit your devices and add a new miniCASTER to your Account. For editing your miniCASTER® please click „Edit device“ right under your device. You will find further informations on this in chapter 5.1. This page also shows you all your registered miniCASTER's and their actual connection status.



# Remote Management / Profiles

miniCASTER® works with stored profiles. For each process of miniCASTER®'s tasks (Input, LAN, WLAN, 2G/3G, Output, Delivery) the device needs several specific information to do the job the way you want. Some information is too long and complicated to edit via the device. So, we created the remote management. A web based service which allows you to edit, save and upload settings under profiles on your device. Once they are stored, you can easily recall them by one click of a button.

## 6.1 Manage Profiles

At this point, you are able to manage profiles for all your miniCASTER's. You are also able to create new profiles by clicking [Create new profile](#), edit existing profiles or delete them.

There are two different types of profiles. Global profiles are default settings which are available to every user on my.minicaster.com. Custom profiles are customer specific profiles.

Every user of one customer can use the custom profiles and depending on his allowed privileges he is able to modify them. With the "view device list" button users are able to publish the profiles to different devices.

The screenshot shows the miniCASTER web interface. At the top, there are navigation tabs: Home, Edit device, and Device-Profiles. The main header displays 'KOBA 2012 HDMI miniCASTER'. Below this, there are two main sections for profile management:

- Profiles available on Device**: Includes a search bar and a table with columns: Name, DHCP, IP Address, and Actions. The table contains one entry: DHCP: yes.
- Profiles to set available**: Includes a search bar and a table with columns: Name, DHCP, and IP Address. The table contains three entries: test-local (no, 192.168.178.63), Akademie free (no, 192.168.1.133), and Andreas Ethernet (no, 10.10.40.222).

Below these sections are expandable sections for WLAN Profiles, 2G / 3G Profiles, and Input Profiles, each with a 'show' button.

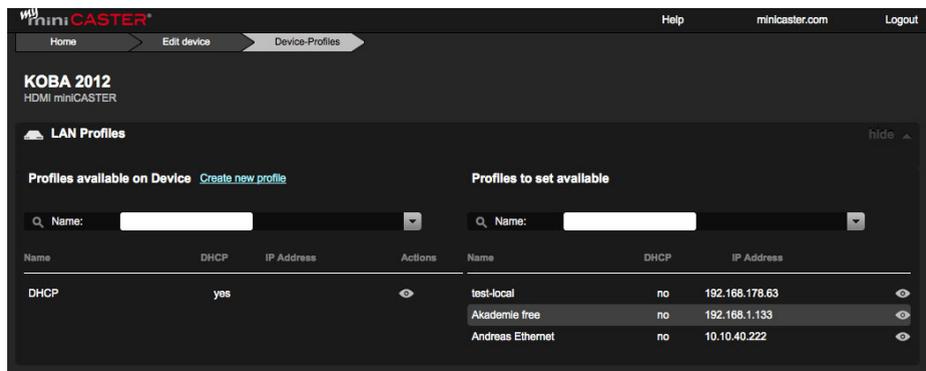
When creating or editing a profile you always have the first field that specifies the name of it. With the checkbox at the bottom of creating a new profile you have the option to make the profile available to all your devices.

# Remote Management / LAN

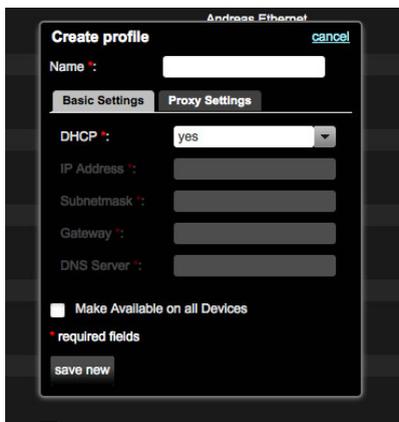
## 6.1.1 LAN Profiles

 LAN Profiles

The most reliable way to go LIVE is to use the LAN connection. You can use a DHCP connection, or type in your specific IP Address. Make sure, that your Firewall and port restrictions are turned off. Otherwise you could face trouble when trying to operate miniCASTER® remotely.



The screenshot shows the miniCASTER web interface for LAN Profiles. The top navigation bar includes 'Home', 'Edit device', and 'Device-Profiles'. The main content area is titled 'LAN Profiles' and contains two sections: 'Profiles available on Device' and 'Profiles to set available'. The 'Profiles available on Device' section shows a table with one profile: 'DHCP' with 'DHCP' set to 'yes'. The 'Profiles to set available' section shows a table with three profiles: 'test-local' (DHCP: no, IP: 192.168.178.63), 'Akademie free' (DHCP: no, IP: 192.168.1.133), and 'Andreas Ethernet' (DHCP: no, IP: 10.10.40.222). Each profile has an eye icon for visibility control.



The screenshot shows the 'Create profile' form for the 'Andreas Ethernet' profile. The form has two tabs: 'Basic Settings' and 'Proxy Settings'. The 'Basic Settings' tab is active. The form includes the following fields and options:

- Name**: A text input field.
- DHCP**: A dropdown menu set to 'yes'.
- IP Address**: A text input field.
- Subnetmask**: A text input field.
- Gateway**: A text input field.
- DNS Server**: A text input field.
- Make Available on all Devices**: A checkbox.
- save new**: A button.

Required fields are indicated by an asterisk (\*).

When creating a new LAN profile, you can specify the IP Address, Subnetmask, Gateway and DNS Server. If you aren't selecting DHCP, you have to type in Name, IP address and Subnetmask, Gateway and DNS Server credentials.

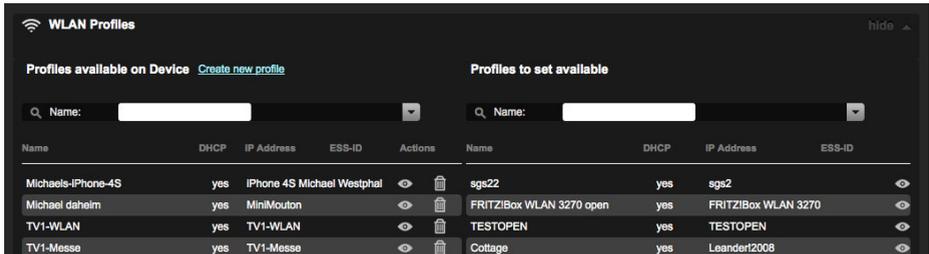
After typing in all required informations please click the "save new" button to make your new profile available.

For assigning a DHCP address you are able to get the MAC-Address of your device on the miniCASTER® Webinterface or on the Information menu on your miniCASTER®. These steps are explained on chapter 5.

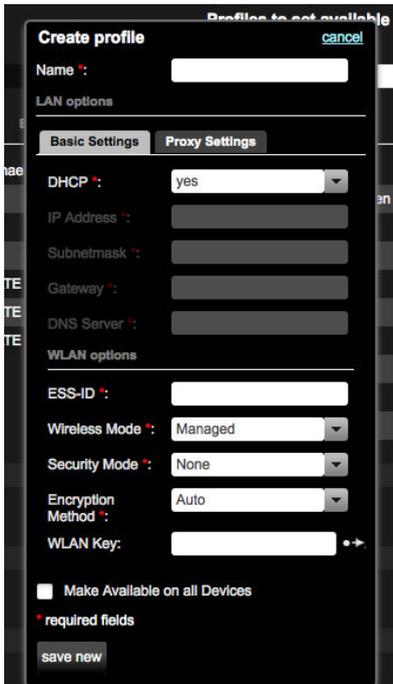
# Remote Management / WiFi

## 6.1.2 WLAN Profiles WLAN Profiles

Wireless streaming is easy and set up in a few seconds. Please do only use the certified CISCO WiFi stick, that comes with your miniCASTER® since it is certified by us and connects quickly with your new device. After setting up your system incl. your local WiFi/Access point credentials, miniCASTER® will always try to connect to one of the known WiFi Network.



Profiles available on Device					Profiles to set available			
Name	DHCP	IP Address	ESS-ID	Actions	Name	DHCP	IP Address	ESS-ID
Michaels-Phone-4S	yes	iPhone 4S	Michael Westphal	 	sgs22	yes	sgs2	
Michael dahelm	yes	MiniMouton		 	FRITZ!Box WLAN 3270 open	yes	FRITZ!Box WLAN 3270	
TV1-WLAN	yes	TV1-WLAN		 	TESTOPEN	yes	TESTOPEN	
TV1-Messe	yes	TV1-Messe		 	Cottage	yes	Leander2008	



**Create profile** [cancel](#)

Name:

LAN options

**Basic Settings** **Proxy Settings**

DHCP:

IP Address:

Subnetmask:

Gateway:

DNS Server:

WLAN options

ESS-ID:

Wireless Mode:

Security Mode:

Encryption Method:

WLAN Key:

Make Available on all Devices

\* required fields

When creating a new WiFi Profile, you can specify the IP Address, Subnetmask, Gateway and DNS Server. If you aren't selecting DHCP, you have to type in a Name, IP address and Subnetmask.

Gateway and DNS are optional. With the checkbox at the bottom you have the option to make the new profile available to all your devices.

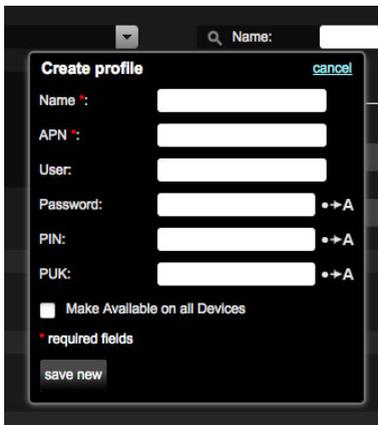
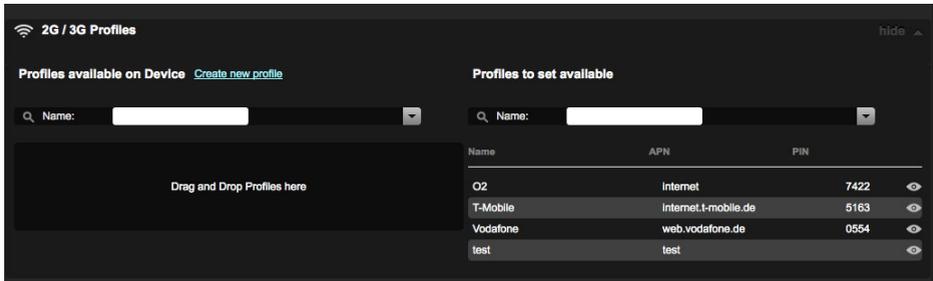
Your Access Point parameters have to be typed in the filed „WLAN options“. Please look these up in your official Access Point papers and double check before clicking the „save new“ button.

Maximum recommended Bandwith when using WiFi is 3.5 Mbit/s. Line of sight between your miniCASTER® and your Access point is a must!

# Remote Management / 3G/4G

## 6.1.3 2G/3G/4G Profiles

Wireless connections, especially 3G/4G, are not very reliable. More and more people are online with their Tablets and Smart phones, therefore upload capacity is limited at crowded places. If you are planning to go LIVE via 3G/4G, please keep in mind, that miniCASTER® can only accept one Surfstick on its USB port. Depending on coverage and quality of your Telecommunication provider results can vary. We have seen upload speed from 256 kb to 5 Mbit in different countries and situations. If you seriously have to rely on 3G/4G LIVE streaming you should invest in an external channel bonding device which is available in our shop: <http://shop.minicaster.com>.



After clicking „Create new profile“ a pop-up window will appear. In this area you can type in your personal credentials which should be shown in your contract details coming from your Telco company. Please keep in mind, that it is your own contract and your own data card / data plan.

Therefore you are the only person having access to these informations. Our technical support can not help you in this case ;).

Make sure to click „save new“ to apply your new profile to your miniCASTER®

## Surfsticks / Mobile Hotspots

You should work with one of our recommended Sticks or Hotspots. We provide an actual overview on our website: <http://www.minicaster.com/3g4g-supported-device/>

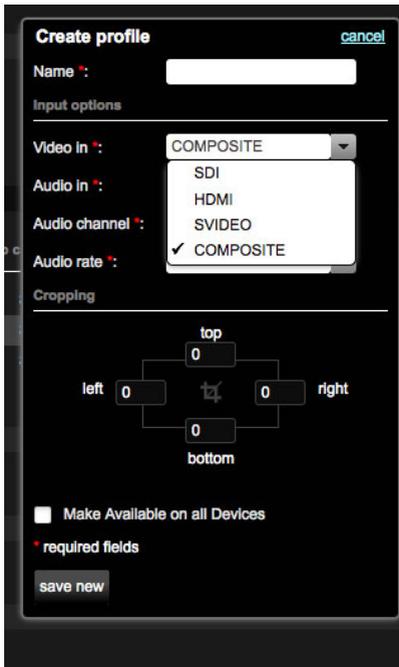
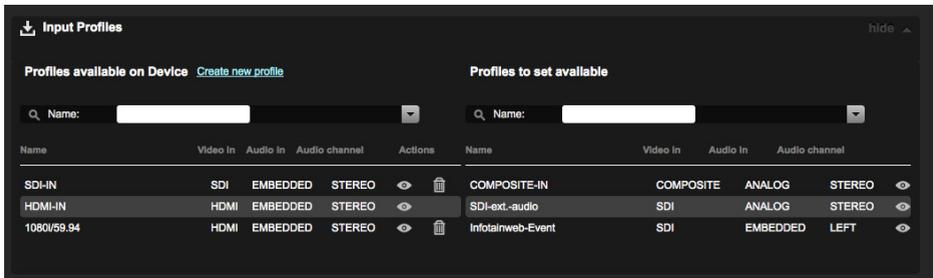
# Remote Management / Input

## 6.1.4 Input Profiles

↓ Input Profiles

When clicking on edit input profiles, you will be able to create new input profiles. You can decide whether the Audio signal should be ingested embedded in the SDI or HDMI® signal or whether it should be ingested coming from an external source. In this case the Audio signal should be ingested via the minijack port on the bottom side of your miniCASTER®

Click on cropping to set exact cropping pixel parameters regarding on the signal you are ingesting, in order to adjust your encoding profile.



When creating a new Input Profile you have to give that profile a name.

After that please choose the kind of signal you want to ingest, by clicking „SDI“, „HDMI“, „SVIDEO“ or „COMPOSITE“ within the drop down menu as shown on the left.

Available options are:

### Video in:

- HDMI/SDI (with embedded or analog audio source)
- SVIDEO
- COMPOSITE

### Audio in:

Stereo, Left or Right

### Audio rate:

16 – 48 KHZ

Please make sure to click the „save new“ button to apply your new profile to your miniCASTER®.

# Remote Management / Encoding

## 6.1.5 Encoding Profiles 🔒 Encoding Profiles

The screenshot shows the 'Encoding Profiles' management interface. It is divided into two main sections: 'Profiles available on Device' and 'Profiles to set available'. Both sections feature a search bar and a table of profiles. The 'Profiles available on Device' table lists profiles such as 720p 3Mbit, 720p 1Mbit, 576p 16:9 1.5Mbit, 576p 16:9 1Mbit, 576p 4:3 1.5Mbit, 288p 16:9 750k, and 288p 4:3 750k. The 'Profiles to set available' table lists profiles like 720p 3.5Mbit, 512x288 500k, and 512x288 16:9 300k. Each profile entry includes columns for Name, Size, Video Bandwidth, and Actions (eye and trash icons).

The 'Create profile' form is shown with the following settings:

- Name: [Empty text field]
- Video:
  - Width: [Empty text field]
  - Height: [Empty text field]
  - Video Bandwidth: [Empty text field]
  - Framerate: AUTO (dropdown)
  - KeyframeInterval: AUTO (dropdown)
- h.264:
  - h.264 Profile: BASELINE (dropdown)
  - h.264 Level: 3.1 (dropdown)
- Audio:
  - Bandwidth: [Empty text field]
  - Audio mode: stereo (dropdown)
- Compatibility:
  - IPod: [Empty text field]
  - iPhone: [Empty text field]
  - IPad: [Empty text field]
  - Common Mobile Devices: [Empty text field]
  - Make Available on all Devices
  - \* required fields

Buttons: cancel, save new

When unboxing the device and bringing it online for the first time, you will find some common 4:3 and 16:9 Encoding profiles on your miniCASTER®.

Of course you can delete these and/or create multiple profiles meeting your specific needs. In the Video area you can type in your individual Size, Bandwith, Framerate and Keyframe interval. Within the H.264 settings you can choose between different available Levels. Bandwith and Audio mode can also be set individually.

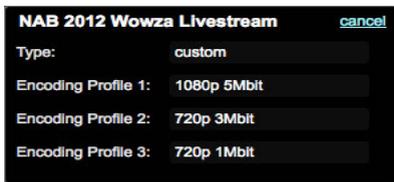
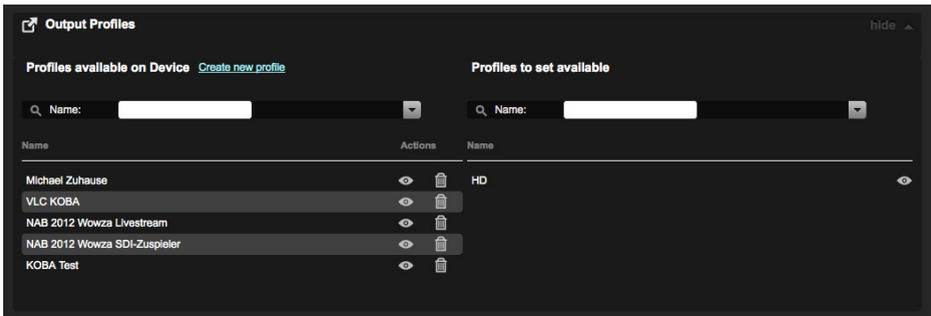
In the Compatibility area you can see if your profile setting can be displayed on iPod, iPhone and iPad. The chart below shows the required settings for these devices.

	IPod	IPhone	IPad	Common
Width	320	640	1280	-
Height	240	480	720	-
Profile	Baseline	Baseline	Main, Baseline	
Base-line				
h.264 Level	1.3	3.0	3.1	1.2
Video BW	768	900	2500	386
Audio BW	128	160	160	-

# Remote Management / Output

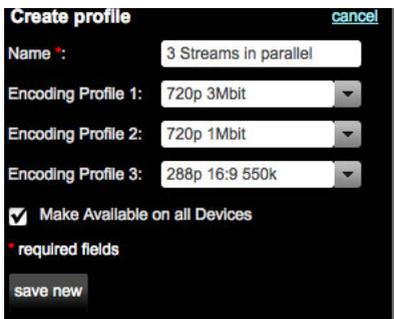
## 6.1.6 Output Profiles Output Profiles

One of the most important areas is the Output Profile setting area. You can basically create any kind of Resolution and/or Bandwidth. The greatest advantage is that you can set up to three different stream qualities and then decide on the fly, which one/two streams should be streamed simultaneously. You can also stream and record at the same time. If your Upload Bandwidth is poor, simply stream the low quality LIVE and record the high quality for on demand playout or as a back-up file.



The left screenshot shows you the detailed view of an existing and already created Output Profile.

In this case we chose three different qualities while attending NABShow 2012. You will receive this detailed information after clicking on the „“ symbol.



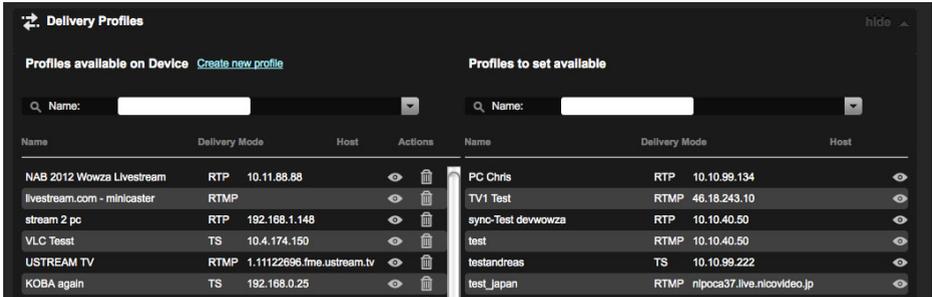
When creating a new Output profile you should give this profile a specific name. miniCASTER® is able to generate three streams at the same time, therefore it makes sense to choose different resolutions/qualities. If your playout should be able to detect the user's bandwidth quality...the most suitable stream will be played out and displayed.

Again it is possible to apply this profile to one or all of your miniCASTER® devices by clicking the „save new“ button.

# Remote Management / Delivery

## 6.1.7 Delivery Profiles

When it comes to Delivery, miniCASTER® is pretty much open. Since you can choose between the RTP and RTMP protocols, it is quite easy to address common CDNs or LIVE platforms. RTP should be ingested to a Wowza Media Server, RTMP should be ingested to a Adobe Flash Media Server or also a Wowza Media Server.

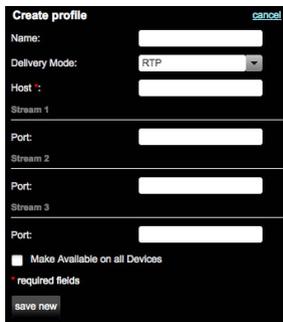


The screenshot shows the 'Delivery Profiles' management interface. It is divided into two main sections: 'Profiles available on Device' and 'Profiles to set available'. Each section has a search bar and a table of profiles. The 'Profiles available on Device' table lists profiles like 'NAB 2012 Wowza Livestream', 'livestream.com - minicaster', 'stream 2 pc', 'VLC Test', 'USTREAM TV', and 'KOBAs again'. The 'Profiles to set available' table lists profiles like 'PC Chris', 'TV1 Test', 'syno-Test devwowza', 'test', 'testandreas', and 'test\_japan'. Each profile row includes columns for Name, Delivery Mode, Host, and Actions (eye and trash icons).

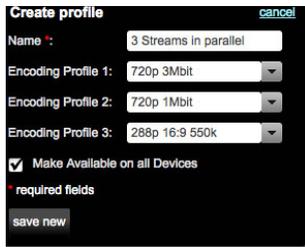
Choose between RTP, RTMP or TS\* as Delivery mode. For RTP please type in a specific Name, a valid Host and the correct Port numbers for all three Stream qualities you want to deliver. For RTMP you should type in a specific name and choose a Provider (for example „Generic“) within the drop down menu. Please do also enter the correct FMS URL and Stream details which should be provided by your CDN or LIVE platform.

Please note : If you should decide to ingest to a WowzaMedia Server Infrastructure, you can also find a very helpful tutorial by Wowza here:

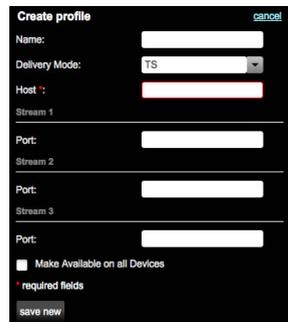
<http://www.wowza.com/forums/content.php?374-How-to-use-Minicaster-live-stream-encoder-with-Wowza-Media-Server>



This is the 'Create profile' form with 'RTP' selected as the delivery mode. It includes fields for Name, Delivery Mode (RTP), Host, and three Stream entries (Stream 1, Stream 2, Stream 3), each with a Port field. There is a checkbox for 'Make Available on all Devices' and a 'save new' button.



This is the 'Create profile' form with 'RTMP' selected as the delivery mode. It includes a Name field with '3 Streams in parallel', three Encoding Profile dropdowns (720p 3Mbit, 720p 1Mbit, 288p 16:9 550k), a checked checkbox for 'Make Available on all Devices', a 'required fields' indicator, and a 'save new' button.



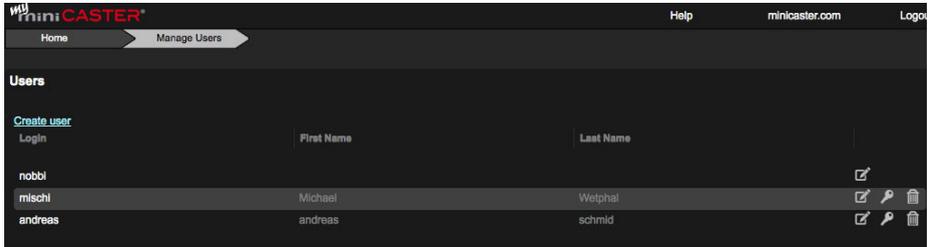
This is the 'Create profile' form with 'TS' selected as the delivery mode. It includes fields for Name, Delivery Mode (TS), Host, and three Stream entries (Stream 1, Stream 2, Stream 3), each with a Port field. There is a checkbox for 'Make Available on all Devices' and a 'save new' button.

# Remote Management / User Management

## 6.2 Manage Users



Within my.minicaster.com you can create and edit users at any time. You can also set and exchange specific rights, or delete single users whenever you want it.



### 6.2.1 Create User

Every user can receive individual rights through clicking on the „Key“ button after being created. Mandatory fields are marked with a star „\*“.

Create user [cancel](#)

First name

Surname

Username \*

Password \*

Retype password \*

Email \*

Edit Userrights for testuser [cancel](#)

Administrator Right

Is Admin

Profile Rights

Create Profiles  
 Edit Profiles  
 Delete Profiles

global miniCASTER Rights

Register Devices  
 Access to all Devices

miniCASTER Access Rights

Chris RC (311280004)  
 Demo analog (311320001)  
 Analog-Show-1 (311320008)  
 SDI-Show-3 (311350004)  
 SDI-Show-1 (311350013)  
 SDI-Show-4 (311350017)  
 Demo-HB (311350019)  
 SDI-Show-5 (311350030)  
 SDI-Demo-1 - RTMP-Test (311350031)

### 6.2.2 Edit user rights

**Admin rights:** Root rights within the customer area

**Profile rights:** Profile specific rights to create, edit or delete

**Global miniCASTER® Rights:** Global rights to add devices or to control them

**miniCASTER® Access Rights:** Rights to control different miniCASTER® devices

# Remote Management / Device Editing

## 7.1 Web interface

my.minicaster.com is structured in two main areas. On the left side you will find general informations like name, actual status, input signal etc.. On the very low left side you will see the Serial, MAC adress and also Firmware version. The right side is your dashboard and offers all important profile settings as described on the first pages of this manual.

The screenshot displays the web interface for a miniCASTER device. The top navigation bar includes 'Home', 'Edit device', 'Help', 'minicaster.com', and 'Logout'. The main content area is divided into two columns. The left column shows the device name 'Demo-HB', a status 'MC-Test für Handbuch', and a list of connection options: USB-PORT (unknown, not attached), SD (not attached), LAN (IP: 10.10.99.252), WLAN (not attached), and Input Signal (576U25). Below this is a battery status (100%), BEEP (on), and BACKLIGHT (off) settings. A 'STREAM' button is set to 'ON' with a 'PREVIEW' link, and a 'RECORD' button is set to 'OFF'. A 'NOW STREAMING ...' indicator is present. The bottom left corner shows device details: Serial (311350019), MAC-Address (00:50:C2:D6:11:73), Firmware (1.1.5), and Last Seen (09.02.2012 12:46:34). The right column is titled 'Settings (edit by simply clicking a value)' and lists various profiles: LAN Profile (DHCP), WLAN Profile (TV1-WLAN), 2G / 3G Profile (No Active Profile), Input Profile (SD-IN), Recording Profile (USB), and Output Profile (HD-OUT). Under the Output Profile, three encoding profiles are listed with their respective names and bitrates, each with 'stream' and 'record' checkboxes. At the bottom, a 'Delivery Profile' is set to '311350019 Default Delivery Profile'. The footer contains the text 'minicASTER® is a registered trademark of TV1.eu' and '© 2011 by TV1 GmbH, Germany'.

You will get realtime feedback from miniCASTER®. You can edit every setting on the fly and start/stop your miniCASTER® with a single click. Once your miniCASTER® is online and has received a valid IP adress and Input signal, please start the stream as shown above. When choosing the Default Delivery Profile, you will see a Hyperlink next to the „STREAM ON“ button called „PREVIEW“. By clicking on this „PREVIEW“ button the TV1.EU preview player will start in a pop-up frame. This enables you to check the LIVE stream that is generated by your miniCASTER® and delivered by the TV1.EU CDN.

Please note: Before this works, you have to choose a LAN profile (should be DHCP) and Input profile. Make sure that you have set the „STREAM“ button to „ON“. Input signal detection can only be started after pushing the „ON“ button due to miniCASTER® architecture.

### 20

Select one of the Preset-Output profiles. (For example the Default Delivery Profile as discribed above) Once this is done and confirmed/executed on your miniCASTER® you should be LIVE!

# Remote Management / Device status

## 7.1.1 Device status

The left area of my.minicaster.com shows your miniCASTER® and right next to it you will see all relevant connections incl. the actual status of every connection. These connections are: USB Port, SD-Card Slot, LAN, WiFi and Input Signal.

You will receive the following feedback:

<b>USB-Port:</b>	Connected Device (WiFi Dongle, 2G/3G/4G Dongle or USB storage) / Not attached
<b>SD:</b>	Mounted SD Card / Not attached
<b>LAN:</b>	LAN-connection und valid/actual IP adress / Not attached
<b>WLAN:</b>	WiFi-connection und valid/actual IP adress / Not attached
<b>Input Signal:</b>	Signal type, resolution and frame rate / No Input Signal detected

You can seperately start/stop the Streaming and Recording function. That means you can stream LIVE and/or record at the same time. **Very important: You can also record only!**

## 7.1.2 Select profiles

In this area (Output profiles) all applied profiles are displayed. By ticking one of the offered fields you can tell your miniCASTER® which Stream should be streamed LIVE and/or recorded. You can stream two Streams in parallel while recording one Stream at the same time.

**Please note: Due to the architecture of miniCASTER® it is not possible to stream 2 HD Streams while recording one HD stream at the same time.**

You can also edit temporary default profiles at any time.

## 7.1.3 Streaming directly to a VLC player

You also have the option to stream directly to a nearby PC. Therefore you can select the Temporary Delivery Profile and enter the host-address and up to three free ports of the PC you want to use. After that you are able to decode the stream on your PC with VLC, click on „open network stream“ and type in a URL like: `udp://@:<portnumber>*`. In case you want to stream via RTP protocol, the correct URL is: `rtp://@:<portnumber>*`.

Please make sure to use a port that is not used on the pc and not blocked by a firewall. This profile needs the Host address of the PC and up to three free ports. The Delivery Mode for streaming to VLC should be TS\*.

\*Please note that Delivery mode TS is only available from Firmware 1.3.1 or higher. (The port number could be 7000 or 10000)

# miniCASTER® menu

## 7.2 Device menu

The Menu button will lead you to the following profile menus:

- Select output profile
- Select input profile
- Select LAN profile
- Select WLAN profile
- Select 2G/3G profile
- Unmount device (USB or SD-Card)

The Info button will lead you to the Network and System infos. The following system-informations are available:

- MAC-Address
- PIC-Version
- Register Code (For registration on [my.minicaster.com](http://my.minicaster.com))
- Serial Number (Important for technical requests)

The red central button starts/stops all selected encoding profiles. By pushing the „light bulb“ button you can adjust the Backlight of your Display in three steps from 50% to 100%.



# Firmware / Support

## 8. Firmware update

We will inform you via Newsletter and on Facebook as soon as a new Firmware Image is available. If you have registered your miniCASTER® to my.minicaster.com, it will check for upgrades automatically every time it is online. To update your Firmware you need an Imagefile which is named: miniCaster-Images. In order to execute this Image it has to be saved to the root file of a USB stick. Once this is done..please follow these easy steps:

1. miniCASTER® has to be shut down / turned off
2. Plug the USB stick
3. Push the Power button
4. After miniCASTER® has recognized the file on the USB stick, please push the central, red button. The update will take approx. 10 minutes.
5. After the latest miniCASTER® Firmware has been installed successfully your device will reboot and and hold for a short time on booting stage 4 if your USB stick still be plugged
6. After Re-booting the update was successfully and you can start working with your updated miniCASTER®

## 9. Support

### 9.1 Documentation

In addition to this Manual you will find Video tutorials on my.minicaster.com when clicking the „Help“ menu button on the very upper right side. You will find several „How-to“ PDFs on <http://www.minicaster.com/how-to%C2%B4s-support/>

### 9.2 Email support

You can easily send us your questions with our contact form on <http://www.minicaster.com/support-form/>



**miniCASTER®**  
*Live Streaming as easy as a phone call*

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