PRODUCT CATALOG
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ULTRALINK-AIR
THE THINNEST H.265 ENCODER WITH UP TO FOUR CAMERA INPUTS
AND DATA BONDING

DESCRIPTION
The UltraLink-Air is a wearable ruggedized encoder and transmitter that supports up to four H.265/HEVC video streams and bonds eight combined 3G/4G connections for high-quality live streaming using Mobile Viewpoint’s award-winning bonding technology. H.265 live video encoding offers high-quality transport at low bandwidth, saving money on data cards. It is also possible to add WiFi and Ethernet connections to the UltraLink-Air to maximize upload capacity.
SPECIFICATIONS

INTERFACES
• 2x RJ-45
• 2x SD/HD SDI
• 2x SD/HD HDMI
• 6.3 mm Jack IFB/Audio return
• 2 embedded audio channels; optional 8
• 2x USB
• Touchscreen
• Optional SSD 2.5” sleeve

INPUTS
• SD; full D1
• HD; 720p50, 720p60 and 720p59.94, 1080p30 (1080p50, 1080p60 optional with special card)
• HD; 1080i50, 1080i60 and 1080i59.94

SUPPORTED ENCODING
• H.264 high profile MVP codec
• H.265 main profile MVP codec

CONNECTIONS
• 8 Modems, LTE(4G), fallback 3G
• WiFi
• Ethernet (optional 2)

RECORDING
• 120 GB internal, up to 1TB using optional sleeve
• Simultaneously live streaming and recording in SD and HD
• SD: High-quality CBR (Constant Bit Rate) in SD H.264 or H.265 up to 40 Mbit
• HD: High-quality CBR (Constant Bit Rate) in H.264 or H.265 up to 40 Mbit

INTERNET CONNECTIVITY THROUGH DATA BONDING
• WiFi hotspot
• Access via ethernet interface

IP MANAGEMENT
• 10/100/1000 base-T (combined with second ethernet port)

HARDWARE
• Dedicated appliance 12-24 volt
• Weighs approximately 1.1kg
• 13.8 cm x 23.4 cm x 4 cm (WxHxD)

OPERATIONS SETTINGS
• Live: Adaptive encoding and bitrate change with three options or with a slider (optional), with configurable delay between 1-60 seconds
• Upload; send contents of a USB stick to an FTP server
• Recording: CBR encoding at 30 Mbit on internal or external SSD disk
• Satellite + 3G/4G + BGAN:
  Specific modes to optimize transmission over BGAN and K-band satellite. With satellite + 3G/4G you can keep the delay at 1.8 seconds using 3G/4G modems for the return channel and IFB.
• Standby/data bonding: In this mode the unit is a true data bonding unit for high-speed uploads and internet access. In other modes data connectivity is available but live video gets prioritized.
• PostPro license (optional): In this mode the system records both a high-res CBR file and a low-res proxy file which can be used for remote editing and partial retrieve.

INCLUDES
• Integrated antenna array
• PSU 90-240 V AC to 12 V DC

AERIALS (OPTIONAL)
• Dome Antenna; omnidirectional antenna array 3 dbi

ADDITIONAL ACCESSORIES
• Custom-made backpack

KEY FEATURES
• Two HD video channels
• 8x audio per video channel
• Up to 40 Mbit H.265 encoding
• 150 Mbit data bonding
• Video return
• 120 GB storage capacity
• 8x integrated modems, WiFi and double LAN access
• Built-in WiFi 2.4/5Ghz hotspot provides for excellent data access for any device
• TripleC connectivity; two individual video channels and data routing
• Camera mount or backpack system
• Unit management via touchscreen
• Store & Forward; the system uses its entire available bandwidth to transport any kind of files through its connections to a FTP server
• Control, manage, and administer all devices and connections with the LinkMatrix web portal
• Publish live content directly to many platforms, including Social Media and private CDNs
DESCRIPTION

The UltraLink-4K is the first bonded backpack transmitter that provides real 4K. It is capable of delivering true 50/60 frames-per-second 4K and Ultra HD video quality from the field using 4G bonding technology.
SPECIFICATIONS

INTERNET CONNECTIVITY THROUGH DATABONDING
- WiFi hotspot up to 100 MB
- Access via ethernet interface

IP MANAGEMENT
- 10/100/1000 Base-T

OPERATIONS SETTINGS
- Live; Adaptive encoding and bitrate change with three options or with a slider (optional), with configurable delay between 1-60 seconds
- Upload send over contents of an USB stick to a FTP server
- Recording: CBR encoding at 30 Mbit on internal or external SSD disk
- Satellite + 3G/4G+ BGAN: Specific modes to optimize transmission over BGAN and KA satellite. With Satellite +3G/4G we can keep the delay at 1.8 seconds using 3G/4G modems for the return channel and IFB.
- Stand-by/Databonding: In this mode the unit is a true databonding unit for high speed uploads and Internet access. Also in the other modes data connectivity is available but live video gets prioritized.
- PostPro license (optional): In this mode the system records next to a high res CBR a low res proxy file which can be used for remote editing and only partial retrieve

EXTRAS
- Backpack with mechanical ventilation

KEY FEATURES
- Linux OS
- Best of class video
- 10 bonded connections 8 x built-in 3G/4G modems, WiFi, and Ethernet
- Big upload speeds for 4K streaming, data access or file upload
- Live video and data transfer simultaneously
- Compact sized
- High volume store & forward
- Video return
- Default storage capacity of 120 GB which can be upgraded until one TB
- Control, manage and administer all devices and connections with the LinkMatrix webportal
- Publish live directly multiple platforms including Social Media and private CDN’s
- Routing to any other Mobile Viewpoint Playout at the same time
- Ability to stream and record
- Encrypted transmission
- Ability to connect to Mobile Viewpoint LinkSwitch

SUPPORTED ENCODING
- H.264
- H.265
- Framerate 50, 60, 59.94

CONNECTIONS
- 8 Modems, LTE(4G), fallback 3G
- WiFi
- Ethernet

INPUTS
- SD; full D1
- HD; 720p50, 720p60 and 720p59.94, 1080p30 (10080p50, 1080p60 optional with special card)
- HD; 1080i50, 1080i60 and 1080i59.94
- 4K: 4K UHD

RECORDERING
- 120 Gigabyte (can be higher on request)
- SD: High quality CBR (Constant Bit Rate) in SD while broadcasting adaptive live stream
- HD: High quality CBR (Constant Bit Rate) in HD while broadcasting adaptive live stream
- 4K: High quality CBR (Constant Bit Rate) in 4K while broadcasting adaptive live stream

WEIGHT & DIMENSIONS
- 2.4 kg
- 26 x 19 x 19 cm (W x B x H)

INCLUDED
- Industry standard battery plate (Anton Bauer or V-Lock)
- PSU 90-240 Volt AC to 12 Volt DC

AERIALS
- Choice of aerials available:
  - Omnidirectional 0 and 3 dBi
  - 11 dBi Directional array
  - Dome antenna, extended to two meters
Transmit live video from any location and go live on YouTube or other streaming platform with the BaseLink low-cost streaming solution from Mobile Viewpoint. BaseLink gives you a live video connection regardless of your location using bonded fixed, WiFi, 3G, and 4G mobile network connections.
Housed in aluminium, BaseLink contains four modems and can bundle up to nine mobile network channels and one fixed IP connection to provide the upstream bandwidth required for HD video. There is also an option to add WiFi and Ethernet connections to maximize bandwidth and ensure the highest-quality video streaming. BaseLink’s upstream bandwidth ranges between 125 Kbps and 12 Mbps.

**SPECIFICATIONS**

**INTERFACES**
- 1x Ethernet 10/100/1000 base-t
- SD: SD-SDI, SD-HDMI, and 2x analog audio
- WiFi
- Audio return
- Touchscreen

**INPUTS**
- SD; full D1, PAL and NTSC mode
- HD; 720p50, 720p60, and 720p59.94
- HD; 1080i50, 1080i60, and 1080i59.94, 1080P60

**SUPPORTED ENCODING**
- H.264 main profile MVP codec
- H.265 main profile MVP codec
- Frame rates: 50, 60, 59, 94

**CONNECTIONS**
- 4 Modems, LTE(4G), fallback 3G by default
- Upgradable to 6 modems
- WiFi

**INTERNET ACCESS**
- WiFi
- Ethernet

**HARDWARE**
- Dedicated appliance 12-24 volt
- Weighs approximately 1.2 kg
- 20 cm x 13 cm x 8 cm (WxDxH)

**OPERATIONS SETTINGS**
- Live
- Delay between 1.0 seconds and 10 minutes
- SD/HD

**AERIALS**
- Dome Antenna; Omnidirectional Array3 dBi

**INCLUDES**
- 4 times 3dBi gain; upgradable to 8 depending on number of modems
- Industry standard battery plate (Anton Bauer or V-Lock)
- PSU 90-220 Volt AC to 12 Volt DC

**ADDITIONAL ACCESSORIES**
- Custom made backpack
DESCRIPTION

The TerraLink Mini encoder supports smaller broadcasters and content owners who want to broadcast live video but do not want to invest in costly large-scale solutions. This product from Mobile Viewpoint proves smaller players can meet today’s tier-one demands for live online video. Also available is the TerraLink Mini-M, a mobile version with two integrated modems and an internal removable battery.
The TerraLink Mini encoder is small enough to fit in your pocket. Its H.265/HEVC encoder allows broadcasters and content owners to go live from any location. Its USB port allows users to connect modems that can support cellular connections, enabling the streaming of superior-quality live video from any location where there is mobile connectivity.

Also available is the TerraLink Mini-M with two integrated 4G modems to support 3G, 4G, and 5G cellular connections. The Mini-M fills the gap between a laptop and a full-size bonding encoder. With two SIM inputs and swivel antenna the TerraLink Mini-M is a complete mobile version.

The TerraLink Mini (M) is compatible with Mobile Viewpoint’s portfolio of production and delivery solutions such as LinkMatrix, a web-based video management portal. With this portal, TerraLink Mini (M) enables the creation of a complete web channel featuring playlists, graphics, leaders, and advertisement insertions.

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>INTERFACE</th>
<th>TRANSMISSION BANDWIDTH</th>
<th>INPUT RESOLUTION</th>
<th>HARDWARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x Ethernet 10/100/1000 Base-T</td>
<td>Max 12 Mbit</td>
<td>Full D1</td>
<td>Dedicated appliance 12-24 Volt</td>
</tr>
<tr>
<td>HD-SDI</td>
<td>WiFi</td>
<td>720p50, 720p59.94, 720p60</td>
<td>TerraLink Mini:</td>
</tr>
<tr>
<td>WiFi</td>
<td>Audio return</td>
<td>1080i50, 1080i59.94, 1080i60</td>
<td>11.5 cm x 6 cm x 11 cm (WxDxH)</td>
</tr>
<tr>
<td>Audio return</td>
<td>Touchscreen</td>
<td>1080p25, 1080p30, 1080p50, 1080p60</td>
<td>TerraLink Mini-M:</td>
</tr>
<tr>
<td>Mini-M: 2 SIM inputs</td>
<td>Mini-M: Swivel antenna</td>
<td>11.5 cm x 7.3 cm x 11 cm (WxDxH)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>BONDING CONNECTIONS</th>
<th>AUDIO</th>
<th>AERIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3G-HD-SDI</td>
<td>Max 6</td>
<td>Embedded AAC 128kbps</td>
<td>Mini-M: Swivel antenna</td>
</tr>
<tr>
<td>1x Ethernet</td>
<td>1x WiFi</td>
<td>Audio return via analog mini jack or dedicated IFB app</td>
<td></td>
</tr>
<tr>
<td>1x WiFi</td>
<td>3G/4G (5G); (optional)</td>
<td></td>
<td></td>
</tr>
</tbody>
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MOBILE VIEWPOINT
WMT FAMILY OF TERRALINK ENCODERS
FOR MOBILE AND REMOTE PRODUCTION FOR LIVE STREAMING

OVERVIEW:
- Outside Broadcast & Remote Production
- Portable 19’ rack mount encoders
- Multicamera support
- TerraLink Mini – small stand alone encoder
- Internal Modem Option
- 5G/4G/3G/WiFi/LAN/Satellite
- 4K/1080i/p/720p/NTSC/PAL
- Additional Remote Production Features
- RCP, IFB & Tally support
- 2WAYLink – encode and decode full HD-SDI video return
- Store & Forward
- Video Return (HDMI) and IFB Support

The WMT TerraLink encoder family is Mobile Viewpoint’s portable servers that are typically used for professional outside broadcast and other point-to-point live streaming needs.

With the exception of the TerraLink Mini (-M), they are 19’ rack mountable and can be used in SNG trucks, outside broadcast vans or studio-to-studio to send live video streams reliably, in high quality and with low latency.

FEATURES:
- Standard - 1, 2 or 4 livestreams input options (3G and 12G SDI)
- 1x 4K stream support
- Bonded options with multiple cellular SIM support from different providers
- Bonded 5G/4G/3G/WiFi/LAN/Satellite
- REMI options for remote production support
- H.265 and H.264
- Adaptive encoding
- Separate ethernet connectivity simultaneously while video live streaming
- Supports IFB/audio comms
- Outputs for video return/teleprompter
- 1U Server - standard encoder
- 2U rack model available – for additional REMI features and PerSonus enhanced IFB
- REMI Option including RCP and Tally Control
- IFB Support (with enhanced PreSonus IFB Intercom option)
- Point-to-point connection
- Receiving end (decoder) has choice of SDI and/or IP outputs
- LinkMatrix – encoders and decoders fully managed by free remote feature-rich management portal
In use by many global broadcasters and TV production companies, the WMT encoders can support single and multi-camera productions with a range of features including internal bonded 5G/4G modems, H265 encoding, 4K, video return, intercom as well as support for remote production (REMI) with features such as RCP camera control, Tally lights, internet connectivity/hotspot and full PreSonus integration for enhanced IFB control.

All WMT encoders can be controlled and managed remotely using LinkMatrix, a free hosted service from Mobile Viewpoint. There are three types of TerraLink Encoders:

- TerraLink Mini Standalone Encoder
- 1U x 19” Standard TerraLink Encoder
- 2U x 19” Enhanced TerraLink Encoder (with REMI Options)

The TerraLink-Mini (-M) is an entry level light-weight H.265 encoder system that supports one input with option for 2 internal SIM cards.

For the standard TerraLink 19”encoder, Mobile Viewpoint provides the 1U server with from 1 to 4x HD-SDI inputs, but also each model can have a REMI version that is updated to 2U to include RCP, Tally control and PreSonus for enhanced IFB audio return.

There is also the option for the TerraLinks to be configured with internal modems, have outputs for return video and support for 4K.

There is also the option for multichannel TerraLinks to have 2WayLink. This is a feature that allows the unit to act as both an encoder and decoder allowing return streams in full HD vii HD-SDI from other encoders.
**WMT TERRALINK MODELS AVAILABLE:**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Standard Encoder (19” rackmount 1U)</th>
<th>Remi option (19” rackmount 2U)</th>
<th>Internal modem (M) option</th>
</tr>
</thead>
<tbody>
<tr>
<td>TerraLink Mini</td>
<td>1x HD-SDI input (stand alone not 19” rack)</td>
<td>n/a</td>
<td>Modems: 2</td>
</tr>
<tr>
<td>TerraLink-2K1C</td>
<td>1x HD/SD-SDI input</td>
<td>n/a</td>
<td>Modems: 8</td>
</tr>
<tr>
<td>TerraLink-2K1C-2WAYLINK</td>
<td>1x HD/SD-SDI input 1x HD/SD-SDI output</td>
<td>n/a</td>
<td>Modems: 8</td>
</tr>
<tr>
<td>TerraLink-4K1C</td>
<td>1x 4K (HD &amp; SD) input</td>
<td>n/a</td>
<td>Modems: 8</td>
</tr>
<tr>
<td>TerraLink-2K2C</td>
<td>2x HD/SD-SDI inputs</td>
<td>n/a</td>
<td>Modems: 8</td>
</tr>
<tr>
<td>TerraLink-2K2C-2WAYLINK</td>
<td>2x HD/SD-SDI inputs 2xHD/SD-SDI outputs</td>
<td>+ REMI option: RCP &amp; Tally &amp; PreSonus</td>
<td>Modems: 8</td>
</tr>
<tr>
<td>TerraLink-2K4C</td>
<td>4x HD/SD-SDI inputs</td>
<td>+ REMI option: RCP &amp; Tally &amp; PreSonus</td>
<td>Modems: 8</td>
</tr>
<tr>
<td>TerraLink-4K4C</td>
<td>4x HD/SD-SDI inputs or 1x 4K 12G inputs</td>
<td>+ REMI option: RCP &amp; Tally &amp; PreSonus</td>
<td>Modems: 8</td>
</tr>
<tr>
<td>HLE Encoder</td>
<td>1x SDI or IP Input (HLS1.1 HTTP Encoder)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**DECODING OPTIONS**

Our encoders provide a point-to-point connection and do not rely on a third party cloud platform for debonding.

A number of decoding options are available at the receiving end.

A cloud decoding option is also available allowing IP live feed streams to CDN’s, social media, and other IP platforms.

**LINKMATRIX**

LinkMatrix is Mobile Viewpoint’s cloud based management control center for controlling all of the encoders in the field, for selecting and managing decoding destinations, as well as host of other configuration and diagnostic information.

LinkMatrix is free but it has a subscription based option for cloud decoding that can be used to set up social media channels or a CDN for instant live streaming. This removes the need for a decoder at the receiver end.

As a hosted service operated under a standard browser with the right security credentials, it allows a remote user to manage all the WMT devices under their control without the talent in the field needing any technical knowledge. LinkMatrix has many features for remote control, going live, social media publishing and remote diagnostics including network management of SIM cards. It also includes other editing and production tools including Clipper for clipping live streams to create media files for instant publishing on social media for example.
## TECHNICAL SPECIFICATIONS:

<table>
<thead>
<tr>
<th>ENCODER</th>
<th>TerraLink Mini (Portable)</th>
<th>TerraLink 19&quot; rack (1U and 2U)</th>
<th>HLE Encoder (1U)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H264 and H265</td>
<td>H264 and H265</td>
<td>H264 and H265</td>
<td>H.264 High Profile 4.1</td>
</tr>
<tr>
<td>Maximum Bandwidth</td>
<td>12Mb/sec</td>
<td>16Mb/sec (per channel)</td>
<td>8Mb/sec</td>
</tr>
<tr>
<td>Store &amp; Forward</td>
<td>n/a</td>
<td>✓</td>
<td>n/a</td>
</tr>
<tr>
<td>Total number of internal modems</td>
<td>Mini (0), Mini-M (2) 5G (on request)/4G/3G</td>
<td>8 (M model only) 5G (on request)/4G/3G</td>
<td>n/a</td>
</tr>
<tr>
<td>Total no of SDI connections</td>
<td>1</td>
<td>(1C) - 1, (2C) - 2, (4C) - 4</td>
<td>1</td>
</tr>
<tr>
<td>Total no of HDMI connections</td>
<td>n/a (only on request)</td>
<td>1 (for video return)</td>
<td>n/a</td>
</tr>
<tr>
<td>Total no of IP connections</td>
<td>1</td>
<td>2 (1 + 1 MANAGEMENT PORT)</td>
<td>1</td>
</tr>
<tr>
<td>2WAY LINK</td>
<td>n/a</td>
<td>Option Return Outputs (full HD) via HD-SDI</td>
<td>n/a</td>
</tr>
</tbody>
</table>

### NETWORK CONNECTIVITY

| No. of Sim Cards (3G/4G) | Mini (0 modems), Mini-M (2 internal modems) | 8 | n/a |
| WiFi | ✓ | ✓ | |
| Ethernet ports (internet) | 1 | 1 | |
| Satellite support | BGAN (extra s/w license) | BGAN (extra s/w license) | |

### CAMERA INPUTS

| Multicamera support | 1x3G-SDI | Y (with 2C and 4C model) | n/a |
| SDI inputs | 1x3G-SDI | Up to 4* 3G-SDI (and 1* 12G option on 4K models) | |
| HDMI inputs | n/a (only on request) | n/a | |
| Ethernet inputs | Y (simultaneously send IP stream) | Y (simultaneously send IP stream) | |
## TECHNICAL SPECIFICATIONS:

<table>
<thead>
<tr>
<th></th>
<th>TerraLink Mini (Portable)</th>
<th>TerraLink 19” rack (1U and 2U)</th>
<th>HLE Encoder (1U)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VIDEO SUPPORT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4K UHD</td>
<td>n/a</td>
<td>4K1C &amp; 4K4C models</td>
<td></td>
</tr>
<tr>
<td>HD and SD video format</td>
<td>Full D1, 720p50, 720p59.94, 720p60, 1080i/p 25/30/50/60</td>
<td>Full D1, 720p50, 720p59.94, 720p60, 1080i/p 25/30/50/60</td>
<td>1080i/50, 720p/60, 540p</td>
</tr>
<tr>
<td>NTSC/PAL</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Sync on multichannel encoders</td>
<td>n/a</td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td><strong>OTHER OUTPUTS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USB Options</td>
<td>External modems to be provided by Mobile Viewpoint</td>
<td>External modems to be provided by Mobile Viewpoint</td>
<td></td>
</tr>
<tr>
<td>HDMI output (for video return)</td>
<td>n/a</td>
<td>✔</td>
<td>n/a</td>
</tr>
<tr>
<td>RCP</td>
<td>n/a</td>
<td>REMI option</td>
<td></td>
</tr>
<tr>
<td>Tally</td>
<td>n/a</td>
<td>REMI option</td>
<td></td>
</tr>
<tr>
<td><strong>STORE &amp; FORWARD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Storage</td>
<td>On request (64Gb)</td>
<td>128Gb (on request more Gb available)</td>
<td></td>
</tr>
<tr>
<td>Rec &amp; Live Stream simultaneously</td>
<td>n/a</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>File trickle Upload via USB</td>
<td>n/a</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td><strong>AUDIO</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of channels audio channels</td>
<td>2 by default (4 or 8 by s/w license)</td>
<td>2 by default (4 or 8 by s/w license)</td>
<td></td>
</tr>
<tr>
<td>Audio Format (embedded)</td>
<td>Embedded audio (12 - 128Kbit per channel)</td>
<td>Embedded audio (12 - 128Kbit per channel)</td>
<td></td>
</tr>
<tr>
<td>IFB Audio</td>
<td>n/a</td>
<td>1 Mic</td>
<td></td>
</tr>
<tr>
<td>IFB PreSonus (full intercom)</td>
<td>n/a</td>
<td>REMI Option 4 channel balanced audio in/out as part of REMI option</td>
<td></td>
</tr>
<tr>
<td>Intercom</td>
<td>n/a</td>
<td>1 Mic</td>
<td></td>
</tr>
</tbody>
</table>
# Technical Specifications:

## Power

<table>
<thead>
<tr>
<th></th>
<th>TerraLink Mini (Portable)</th>
<th>TerraLink 19&quot; rack (1U and 2U)</th>
<th>HLE Encoder (1U)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power requirements</td>
<td>12V</td>
<td>100 - 240V</td>
<td>100 - 240V</td>
</tr>
<tr>
<td>Consumption</td>
<td>25wh</td>
<td>90W</td>
<td>n/a</td>
</tr>
<tr>
<td>Internal battery</td>
<td>On request</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Vlock plate</td>
<td>Via separate plate</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Anton Bauer plate</td>
<td>On request via separate plate</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Main power supply</td>
<td>12V DC</td>
<td>C13</td>
<td>C13</td>
</tr>
<tr>
<td>Dual power supply</td>
<td>n/a</td>
<td>On request</td>
<td>On request</td>
</tr>
</tbody>
</table>

## Internet Hotspot

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wifi</td>
<td></td>
<td>✓</td>
<td>n/a</td>
</tr>
<tr>
<td>Ethernet</td>
<td>n/a</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Delay/latency</td>
<td>0,8 - 60 seconds</td>
<td>0,8 - 60 seconds</td>
<td></td>
</tr>
<tr>
<td>Encryption</td>
<td>128 AES</td>
<td>128 AES</td>
<td></td>
</tr>
</tbody>
</table>

## Hardware Properties

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen for admin/playback</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Size</td>
<td>Mini: 11.5cm x 6cm x 11cm (w * d * h), Mini-M: 11.5cm x 7.3cm x 11cm (w * d * h)</td>
<td>19&quot; wide (482.6 mm), 1U is (1.75&quot; or 44.45 mm) REMI- 2U</td>
<td>19&quot; wide (482.6 mm), 1U is (1.75&quot; or 44.45 mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>1.5kg</td>
<td>6 - 8kg</td>
<td>5kg</td>
</tr>
<tr>
<td>Ruggedized Casing</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Operational Temperature</td>
<td>-5C to +40C</td>
<td>-5C to +40C</td>
<td>-5C to +40C</td>
</tr>
<tr>
<td>Decoders supported</td>
<td>ALL</td>
<td>ALL (REMI decoders required to support REMI Encoders)</td>
<td></td>
</tr>
</tbody>
</table>

## Hosted Management

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LinkMatrix Compatible</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Social Media for cloud decoding</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

## Accessories

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dome Antennas Supported</td>
<td>✓</td>
<td>✓</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Mobile Viewpoint
WMT Family of
Enterprise Receivers
For Mobile and Remote Production for Live Streaming

OVERVIEW:
- Decode and playout live video stream(s)
- Operate with any WMT encoder
- Option for third party encoders
- Decode and playout to SDI or IP
- Multicam Support
- 1080i/p / NTSC/ PAL / 4K
- Additional Remote Production Features
- RCP, IFB & Tally support
- Internal Modems

The WMT family of mobile receivers are Mobile Viewpoint’s decoding and playout servers that are typically located at the receiving location. As a vital part of the Mobile Viewpoint broadcast and live streaming workflow, receivers enable the debonding, decoding and playout of simultaneous live SD, HD and 4K video streams generated by Mobile Viewpoint’s WMT encoder fleet.

In use by many global broadcasters and production companies to create high quality and low latency video feeds, the servers are used with a range of WMT and other encoder brands, to create live HD-SDI outputs and IP video formats from remote or other studio locations. They also provide ethernet network connectivity back to the encoder in the field for other third party applications such as PTZ control.

FEATURES
- Standard - 1, 2, or 4 livestreams output options (SDI)
- LinkSwitch up to 20x IP streams
- 1x 4K stream output available
- SDI Playout: 3G and 12G
- IP Playout: NDI, RTMP, RTSP, MPEG-TS, SRT
- 1U Server- standard debond, decode, and playout (includes IFB)
- 2U rack model available – for additional REMI features and PerSonus enhanced IFB option
- Option for LinkSwitch server to debond up to 20 live inputs and can push RTSP streams to other playout servers for SDI output without need of global IP address on remaining servers
- H.265 and H.264 decoding
- REMI Option including RCP and Tally Control
- IFB Support (with enhanced PreSonus option)
- Up to 6 internal modem option
- LinkMatrix – encoders and decoders fully managed by free remote feature-rich management portal
WMT PRODUCTS - POSITIONING

For standard playout, Mobile Viewpoint provides the 1U server with up to 4x HD-SDI outputs, but also each model can have a REMI version that is updated to 2U to include RCP, Tally control, and PreSonus for enhanced IFB audio return.

There is also the option for a receiver to be configured with internal modems so receivers can be installed in a remote location with no LAN connectivity, such as an OB truck.

RECEIVER SERVERS:

1U x 19” Standard Playout Server
2U x 19” Playout Server (with REMI Options)
1U Linkswitch Server - for IP playout with transcoding option

LINKMATRIX

A central part of the Broadcast and Streaming workflow is LinkMatrix, a free-to-use management platform that operates from a browser on any device.

This means non-technical journalists and production people in the field do not need to manage the units directly. LinkMatrix can manage individual encoders, destinations, allows proxies to be viewed, enables record & go, implements video return, shows networks, and allows other set ups and configurations.
# WMT Receiver Models Available:

<table>
<thead>
<tr>
<th>Model</th>
<th>Standard Decoder (19&quot; rackmount 1U)</th>
<th>Remi option (19&quot; rackmount 2U)</th>
<th>Modem (M) option*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2K2C</td>
<td>1080i/p Output: 2x SDI + IP</td>
<td>n/a</td>
<td>Modems: 6 internal</td>
</tr>
<tr>
<td>2K4C</td>
<td>1080i/p Output: 4x SDI + IP</td>
<td>+ REMI option: RCP &amp; Tally &amp; Presonus</td>
<td>Modems: 6 internal</td>
</tr>
<tr>
<td>4K1C</td>
<td>4K &amp; Full HD Output: 1x 12G SDI + IP (Upgradeable to 4K4C)</td>
<td>+ REMI option: RCP &amp; Tally &amp; Presonus</td>
<td>Modems: 6 internal</td>
</tr>
<tr>
<td>4K4C</td>
<td>4K &amp; Full HD Output: 1x 12G or 4x 3G HD-SDI + IP</td>
<td>+ REMI option: RCP &amp; Tally &amp; Presonus</td>
<td>Modems: 6 internal</td>
</tr>
<tr>
<td>LinkSwitch</td>
<td>1080i/p IP Output Only 20 WMT clients Transcoder Option Available</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

* For internal modem playout, requires additional receiver in workflow path

## Technical Specifications:

### Power
- **Power Requirements**
  - 2K2C / 2K4C: 90-240V
  - 4K1C: 90-240V
  - 4K4C: 90-240V
  - LinkSwitch: 90-240V
- **Consumption**
  - 2K2C / 2K4C: 90W
  - 4K1C: 90W
  - 4K4C: 90W
  - LinkSwitch: 90W
- **Redundant power supply**
  - 2K2C / 2K4C: On request
  - 4K1C: On request
  - 4K4C: On request
  - LinkSwitch: On request

### Hardware Properties
- **Screen for admin**
  - 2K2C / 2K4C: ✓
  - 4K1C: ✓
  - 4K4C: ✓
  - LinkSwitch: ✓
- **Size (1U server)**
  - 2K2C / 2K4C: 19" wide (482.6 mm), 1U is (1.75" or 44.45 mm)
  - 4K1C: 19" wide (482.6 mm), 1U is (1.75" or 44.45 mm)
  - 4K4C: 19" wide (482.6 mm), 1U is (1.75" or 44.45 mm)
  - LinkSwitch: 19" wide (482.6 mm), 1U is (1.75" or 44.45 mm)
- **Weight**
  - 2K2C / 2K4C: 2.1 Kg
  - 4K1C: 2.1 Kg
  - 4K4C: 2.1 Kg
  - LinkSwitch: 2.1 Kg
- **Operational Temperature**
  - 2K2C / 2K4C: 10°C (50°F) or above 28°C (82°F)
  - 4K1C: 10°C (50°F) or above 28°C (82°F)
  - 4K4C: 10°C (50°F) or above 28°C (82°F)
  - LinkSwitch: 10°C (50°F) or above 28°C (82°F)
- **Encoders supported**
  - 2K2C / 2K4C: ALL (WMT and 3rd party encoders via RTSP)
  - 4K1C: ALL (WMT and 3rd party encoders via RTSP)
  - 4K4C: ALL (WMT and 3rd party encoders via RTSP)
  - LinkSwitch: ALL (WMT and 3rd party encoders via RTSP)

### Hosted Management
- **LinkMatrix Compatible**
  - 2K2C / 2K4C: ✓
  - 4K1C: ✓
  - 4K4C: ✓
  - LinkSwitch: ✓
## TECHNICAL SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Feature</th>
<th>2K2C / 2K4C</th>
<th>4K1C</th>
<th>4K4C</th>
<th>LinkSwitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no. of live connections</td>
<td>2/4</td>
<td>1</td>
<td>4</td>
<td>20 WMT Devices 50 iPhone Clients</td>
</tr>
<tr>
<td>Total no. of SDI connections</td>
<td>2/ 4 (HD - 3G)</td>
<td>1 (4K-12G)</td>
<td>4 (1x 12G OR 4x 3G)</td>
<td>n/a</td>
</tr>
<tr>
<td>IP Output</td>
<td>RTMP, RTSP, NDI, SRT, TS-MPEG</td>
<td>RTMP, RTSP, NDI, SRT, TS-MPEG</td>
<td>RTMP, RTSP, NDI, SRT, TS-MPEG</td>
<td>RTMP, RTSP, NDI, SRT, TS-MPEG</td>
</tr>
<tr>
<td>NETWORK CONNECTIVITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethernet ports 10/100/1000 base-t</td>
<td>1 + 1 management port</td>
<td>1 + 1 management port</td>
<td>1 + 1 management port</td>
<td>1 + 1 management port</td>
</tr>
<tr>
<td>INPUTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ref input Genlock</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>n/a</td>
</tr>
<tr>
<td>Microphone or line input for talkback (IFB return)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>VIDEO SUPPORT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full HD</td>
<td>1080i/p NTSC &amp; PAL 25/30/50/60</td>
<td>1080i/p NTSC &amp; PAL 25/30/50/60</td>
<td>1080i/p NTSC &amp; PAL 25/30/50/60</td>
<td>1080i/p NTSC &amp; PAL 25/30/50/60</td>
</tr>
<tr>
<td>4K UHD</td>
<td>n/a</td>
<td>1 channel</td>
<td>1 channel</td>
<td>n/a</td>
</tr>
<tr>
<td>OTHER INPUTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USB Options</td>
<td>PreSonus?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCP 3G/4G)</td>
<td>x</td>
<td>option</td>
<td>option</td>
<td>x</td>
</tr>
<tr>
<td>Tally</td>
<td>x</td>
<td>option</td>
<td>option</td>
<td>x</td>
</tr>
<tr>
<td>AUDIO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated PreSonus Option for True Intercom</td>
<td>x</td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>Audio Format</td>
<td>Embedded audio</td>
<td>Embedded audio</td>
<td>Embedded audio</td>
<td>Embedded audio</td>
</tr>
<tr>
<td>IFB Audio input with less second delay</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>n/a</td>
</tr>
<tr>
<td>INTERNAL STORAGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal storage</td>
<td>120GB</td>
<td>120GB</td>
<td>120GB</td>
<td>120GB</td>
</tr>
<tr>
<td>INTERNAL MODEMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal modems</td>
<td>Up to 6x 3G/4G/5G</td>
<td>Up to 6x 3G/4G/5G</td>
<td>Up to 6x 3G/4G/5G</td>
<td>n/a</td>
</tr>
</tbody>
</table>
OVERVIEW:

- Allows remote operation of WMT encoders, decoders and IQ-SP
- Hosted Cloud Service
- Operates under most browsers
- Manage, configure, operate, monitor and troubleshoot
- Intuitive and easy to use GUI
- Operate live stream from anywhere in the world
- REMI features including Tally, PreSonus and RCP control
- Full network management including cellular, wi-fi, satellite & LAN
- IQ-SP (AI Sports Production) Remote Management

LinkMatrix is a free-to-use management platform that operates from a browser on any device for managing WMT products remotely. This means non-technical presenters and production people in the field do not need to manage the units directly.

WMT PRODUCTS - POSITIONING

- Audio & Video return
- Video transfer
- Bidirectional IP Connection

FEATURES

- Free hosted service
- Secure sign on with defined user privileges
- Use on any browser supported device from any remote location
- Manage and control WMT encoders
- Manage and control IQ-SP
- Universal playout of 3rd party encoders
- View thumbnails of live streams with video formats/frame rates
- Connect live streams to a live stream destination (decoder or online destination)
- Manage decoder hardware
- Create social media streams
- Configure, operate & troubleshoot
- View and control cellular and fixed networks
- Cloud decoding for IP workflows
- Control Transcoding functions
- Control IFB & Video Return
- Create graphical overlays
- Edit live streams into clips (clipper)
- Remote video switching
- REMI - Remote tally/RCP
- Scheduling live events
- Stat generation and live gauges
**LIVE & CONNECT**

The Live & Connect page of LinkMatrix is where you can connect, control and monitor all video streams. The left side of the screen shows all the different streams available in an account, the right side of the screen contains all your output destinations where a simple drag and drop connects encoders with their appropriate decoder.

**UNIVERSAL PLAYOUT**

LinkMatrix has a Universal Playout function. This allows the supports of many different video sources, even third party streams and competitive offerings that can be added and connected to the decoder outputs or pushed to the inbuilt social media streaming feature.

The Universal Playout feature supports third party streams of RTMP (H.264), RTSP (H.264 & H.265), TSMEPEG4, and HLS. Third party streams are called StreamSources in LinkMatrix.

It is possible to take remote control of WMT encoders and control them by displaying an emulation of the touchscreen of the graphical user interface but within a browser. Any configuration and operation of the device can be done remotely including going live. Camera people, presenters, and journalists on location do not have to be technical to use the encoder and all operation can be done remotely in real time.

**MANAGEMENT & MONITORING**

LinkMatrix has a host of configuration and operational statistics for viewing and troubleshooting including cellular and network connectivity.

LinkMatrix can determine which decoder destination and decide which physical output on the decoder device to live stream to.

LinkMatrix also supports full cloud decoding (as a subscription) and can transcode to a variety of different video formats and stream to a different range of social media, CDN, OTT or other IP video platforms. The Gauges tab show gauges detailing the detected temperature, voltage and current of the unit.
IQ-SPORTS PRODUCER

LinkMatrix is also the central management system for IQ-SP, the AI driven sports production platform from IQ Video Solutions. It allows games to be scheduled, graphical overlays to be added, scoreboard configuration, creation and playout of highlights, commentary, storyboard creation including intro’s and outro’s, creation of additional streams with zoomed in views of the pitch, clipping of live streams for short MP4 highlights for social media, MP4 creation for training applications, and the addition of sponsorship banners as overlays on pitch-side advertisement hoardings.

By the end of 2020: LinkMatrix also allows the ability to add remote commentary.

FEATURES:

- Calendar for scheduling games
- Create highlights and replays
- Add Storyboard for intro’s and outro’s
- Graphical overlays
- Add sponsors and banners to matches
- Scoreboard (manual and OCR)
- Multiple view setup for multi-camera

OTHER MANAGEMENT & PRODUCTION SOLUTIONS WITHIN LINKMATRIX

LINKMIX

Real time switching center and playout. LinkMix from Mobile Viewpoint is a real-time playout and switching solution for use with the LinkMatrix video control and management center. It simplifies the ability to create complete IPTV channels featuring playlists, overlays, live switches and ticker tapes. These channels can then be published on platforms such as Vimeo and Facebook.

CLIPPER

Clipper is a web-based live TV clipping application. With Clipper, content teams can select key moments as they occur from a live stream, edit and post them within 30 seconds on Social Media platforms or a private CDN.

LINKSWITCH

The LinkSwitch is the stand-alone debonding server offering transcoding and relay services. The LinkSwitch is required when customers want to operate at a larger scale or do not have requirements for decoding to SDI. The LinkSwitch is a highly scalable solution offering several options which are available in a buffet model.

IFB APP

The IFB app is the ultimate companion app for WMT users. It allows your entire crew to use their iOS device to listen in to the same IFB stream coming from the studio. No need for audio splitters and cumbersome cables, everyone uses their own device and can decide for themselves what they want to listen to.
DESCRIPTION

Designed for mobile journalists (MoJos) and professional video contributors, Mobile Viewpoint’s Streamur app enables the ability to cover breaking news, interviews, and live events with your own device.
The Streamur app turns your iPhone, Macbook or Android device into the perfect tool for getting stories on air fast. Simply install the app and login to the Webstreamur platform. You can use the onboard camera of your device or connect an external camera such as a GoPro. Click on the Live button and the live stream will start automatically using the available connections on your device.

### SPECIFICATIONS

#### COMPATIBILITY
- Operating system: iOS, Android

#### RESOLUTIONS
- PAL, HD: 960 x 540, 2280 x 720, 1920 x 1080

#### SUPPORTED ENCODING
- H.264 high profile MVP codec

#### AUDIO
- Advanced Audio Coding (AAC)
- IFB

#### CONNECTIONS
- 1x 3G/4G connection of your device
- WiFi as a secondary hotspot connection

#### OPERATIONS SETTINGS
- Live: adaptive encoding and resolution change between full resolution, half and quarter resolution with configurable delay between 1.8-30 seconds
- Recording: forwards video recordings, accessible through the LinkMatrix management portal

#### KEY FEATURES
- Instant live streaming to any social media platform
- Location-based push messaging
- Text chat function
- Speed/connection test
- Brightness control