

TVU MLink

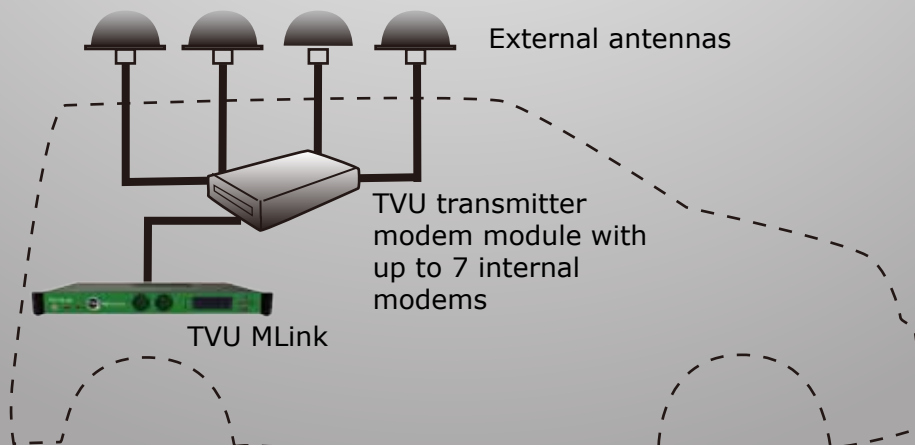
Rack-Mountable Integrated Cellular/Satellite/Microwave Uplink Solution for Vehicle or In-Studio Use



TVU MLink delivers a complete, versatile Cellular ENG solution for OB vehicles and fixed locations. It is designed to automatically aggregate multiple Cellular, microwave and satellite connections together simultaneously to ensure that field crews have the necessary bandwidth to broadcast live, real-time video in challenging environments. TVU MLink is a 1RU chassis, fixed transmitter with roof-mounted antennas to ensure the best possible signal strength. TVU MLink is powered by TVU's powerful IS+ technology that transmits simultaneously over multiple Cellular, WiFi, Ethernet, satellite or microwave connections with sub-second latency.

TVU MLink TE4500

TVU's most advanced rack-mount solution is the TVU MLink TE4500 H.265/HEVC encoding solution for live video transmission. The MLink TE4500 transmits video using HEVC video compression but also incorporates TVU265 enhanced HEVC, Smart VBR encoding and IS+ technology. The TE4500 delivers the same high-quality picture that is currently available with TVU's award-winning IP-based transmitters but with more efficient and innovative compression, requiring less data transmission.



TVU MLink TE4200

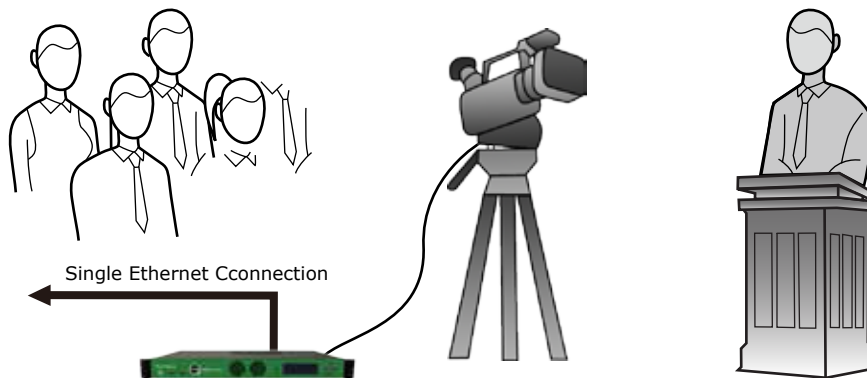
The TE4200 model allows users to transmit live video over two Ethernet connections, WiFi and up to seven embedded Cellular modem cards, simultaneously. This solution also includes multiple external high-gain 3G/LTE antennas in removable or fixed roof-mounted configurations designed to give ENG vehicles optimal resiliency.

TVU MLink TE4100

The TE4100 features a single Ethernet port and VBR encoding, making it ideal for fixed installations. It is easy to set up, comes at a lower cost, and requires minimum bandwidth. Additionally, it is compatible with TVU Grid.

The TE4100 can be used in various applications such as:

- In a community TV station studio
- To broadcast local government town and board meetings
- In news bureaus



Features

Superior Performance – TVU MLink provides the same performance, quality and functionality as the industry-leading TVU cellular uplink transmitters in a rack-mountable form factor. Using TVU’s proprietary IS+ transmission protocols, broadcasters are able to aggregate multiple network connections simultaneously and transmit optimized video that results in superior resiliency and picture quality.

Satellite and Microwave Integration – TVU MLink is fully integrated with satellite and IP-based microwave transmission systems, enabling transmission of a broadcast-quality HD signal regardless of cellular network conditions. MLink automatically aggregates all available bandwidth seamlessly, without disruption of transmission – even as satellite, microwave or cellular connections are added or dropped.

Smart Variable Bit-Rate Encoding Technology – TVU offers proprietary Smart VBR technology for managing encoding. With Smart VBR, you select the latency, and TVU dynamically manages the bit-rate. Smart VBR adapts quickly and efficiently to extreme fluctuations in bandwidth during live transmissions.

Roof-Mounted Antenna – TVU MLink offers a roof-mounted external MIMO antenna, which ensures the best possible signal strength even in challenging network environments.

Ease of Use – It goes live with just the push of a button and no manual in-field configuration is required. Field crews can manually control a transmission using the simple front-mounted keypad on the unit and monitor live transmissions from the LCD panel.

Low Latency Transmission – It can transmit live video with as low as sub-one second latency.

Hotspot Functionality – Not only does TVU MLink deliver a live HD signal back to the broadcast facility, it can also act as a gateway to the Internet. With the Hotspot feature, any laptop computer or wireless device can access the Internet through TVU's wireless connections. The Hotspot enables video crews to edit a finish story on a laptop in the field and send the finished story back to the broadcast facility over the MLink's wireless Internet connections.

On Demand Video Retrieval – MLink features an onboard SSD hard drive capable of capturing up to 7 hours of continuous footage, ensuring that your video is safe and retrievable when you need it.

HDMI/SDI Input – TVU MLink is compatible with both SDI and HDMI inputs. The MLink supports 1080i, 720p, PAL or NTSC input formats.

TVU MLink Technical Specifications*

TE4100

TE4200

TE4500

	TE4100	TE4200	TE4500
Electrical	Line voltage: 100-240V AC, 50/60 Hz 5.2-2.6A	Line voltage: 100-240V AC, 50/60 Hz 5.2-2.6A	Line voltage: 100-240V AC, 50/60 Hz 5.2-2.6A
Configuration	1RU	1RU	1RU
Audio/Video Input	HD/SD-SDI (BNC) input - 1080-59.94i/50i, 720-59.94p/50p 480-59.94i, 576-50i w/ embedded 2-ch. Audio or HDMI (type A) - 1090-59.94i/50i. 720-59.94p/50p, 480-59.94i, or 4 ch audio	HD/SD-SDI (BNC) input - 1080-59.94i/50i, 720-59.94p/50p 480-59.94i, 576-50i w/ embedded 2-ch. Audio or HDMI (type A) - 1090-59.94i/50i. 720-59.94p/50p, 480-59.94i, 576-50i w/ embedded 2 or 4 ch audio	HD/SD-SDI (BNC) input - 1080-59.94i/50i, 720-59.94p/50p 480-59.94i, 576-50i w/ embedded 2-ch. Audio or HDMI (type A) - 1090-59.94i/50i. 720-59.94p/50p, 480-59.94i, 576-50i w/ embedded 2 or 4 ch audio
Audio/Video Encoding and compression	H.264 encoder	H.264 encoder	Enhanced H.265 encoder / HEVC compression
Transmission	Inverse StatMux Plus (IS+)	Inverse StatMux Plus (IS+)	Inverse StatMux Plus (IS+)
Network Interface	1 x 10/100/1000 BASE-T RJ45 Ethernet port. Dedicated port for HotSpot	2 x 10/100/1000 BASE-T RJ45 Ethernet ports and up to 7 USB data card interfaces (2.5G/3G/4G/WiMax) via modem module. Dedicated ports for WiFi and HotSpot	2 x 10/100/1000 BASE-T RJ45 Ethernet ports and up to 7 USB data card interfaces (2.5G/3G/4G/WiMax) via modem module. Dedicated ports for WiFi and HotSpot
Display	Display port HDMI output (UI)	Display port HDMI output	Display port HDMI output
Control	Front panel backlit LCD & keypad	Front panel backlit LCD & keypad	Front panel backlit LCD & keypad
IFB Output	3.5mm headphone jack	3.5mm headphone jack	3.5mm headphone jack
Dimensions	1U, 482.6 x 44.4 x 257.05 mm, 19" x 1.75" x 10.1"	1U, 482.6 x 44.4 x 257.05 mm, 19" x 1.75" x 10.1"	1U, 482.6 x 44.4 x 257.05 mm, 19" x 1.75" x 10.1"
Weight	4.3 kg / 9.4 lbs	4.3 kg / 9.4 lbs	4.3 kg / 9.4 lbs
Operating Temperatures	0-35° C (32-95° F)	0-35° C (32-95° F)	0-35° C (32-95° F)
TVU Software Version	OS 5.6	OS 5.6	OS 5.6

*Specifications and features are subject to change.

5/1/17



TVU networks®

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