Operational description WMT Agile 2.0

Block diagram WMT AgileR 2.0

+5 Volt

SDI

HDMI

CVBS

Audio

encoder

ethernet

CPU Board

USB

Modem Board

x 6

LTE Bands:
B2 (1900 Mhz)
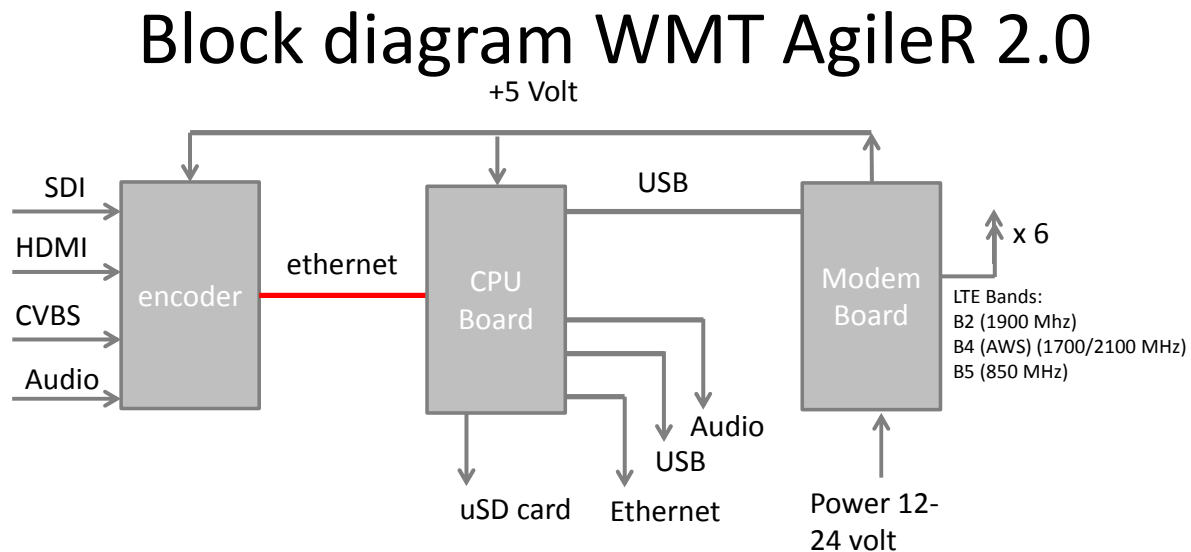B4 (AWS) (1700/2100 MHz)
B5 (850 MHz)

Audio

USB

uSD card

Ethernet

Power 12-24 volt

General description

The WMT Agile 2.0 is a device that Transmit live video and high volume data from any location! With the WMT™ you have a live video connection regardless of your location using bonded 4G mobile network connections. Bonding of multiple mobile networks ensures more bandwidth and stability.

Operational description WMT Agile 2.0

The WMT agile 2.0 contains 3 parts:

- Video Encoder
- CPU Board
- Modem Board

The video encoder is a Texas Instruments based DSP solution that grabs video via HDMI, Analogue (CVBS video and analogue audio) or SDI input. After grabbing the video frames the DSP will compress the video at a video bitrate based on the available bandwidth on the bonded connections.

The CPU board takes care of signaling and controlling both the Modem Board and the Video encoder. The CPU Board is based on a Texas Instruments OMAP based standard board made by Gumstix. The CPU board interface with the encoder board via Ethernet. The interface with the modem board is via USB. The CPU board also has:

- WiFi to communicate with external IP networks
- Ethernet for connection with external fixed IP networks
- uSD card for the export of recordings made with the WMT
- Line out audio connector
- USB connector for storage or retrieval of video from mass storage devices

The modem board holds all the modems (maximum 8) and contains several other components:

- Switching power supply to create 3,3 volt powering the modems
- Switching power supply to create 5 Volt to power all the other electronics
- Microprocessor to measure all the voltages and current

The modems on the modem board are 7355 modems from Sierra wireless supporting all major operators in the US like Verizon, AT&T, T-Mobile and SPRINT. However in the US version of the WMT AgileR we only support the firmware which applies to bands:

B2 (1900 Mhz)

B4 (AWS) (1700/2100 MHz)

B5 (850 MHz)