

RT-AV140



Embedded picture quality measurement

RT-AV140 is EmbeddedPQM (Picture Quality Measurement) test device (for one node: one input set HDMI+CVBS) for STB (set-top box) artifact detection. RT-AV140 is aimed at deployment in non-referent systems for detection of blocking, packet Loss, and black screen artifacts. It enables real-time capturing and processing of audio and video signals up to 1080p60. Test results are available over network using Simple Network Management Protocol (SNMP). RT-AV140 is a 19" rack device with integrated grabber and processing unit.



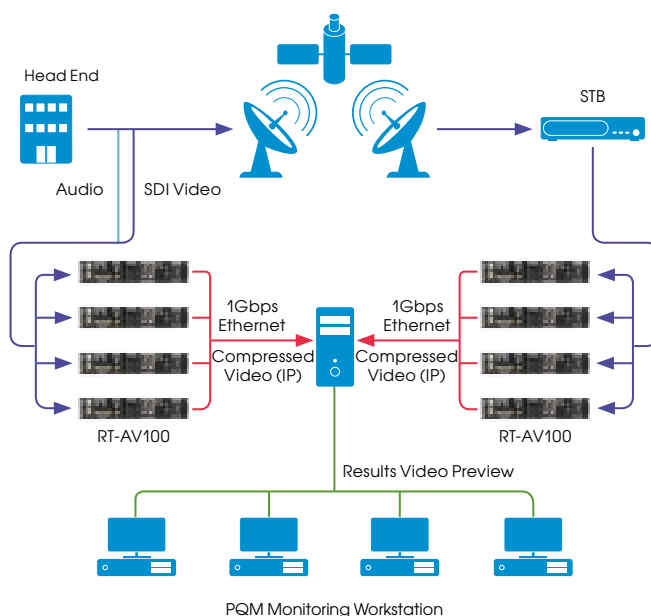
System description

Can be used in both Head-end and Terminal side.

- **Head-end:** SDI capture of SD and HD video content up to 1080i60
- **Terminal:** Video grabbing capabilities: SD (CVBS) and HD (HDMI) signals up to 1080p60
- Audio Grabbing capabilities: Analog Audio, S/PDIF (optical or coaxial)
- On-the fly real time lossless compression up to 1080i60 and video streaming
- No reference video quality assessment
- Processing is done inside device and results are sent over LAN
- Automatic video signal and standard detection

Use cases

- Video quality assessment of broadcasting signal
- Quality assessment of multi-media devices
- DTV back-end quality assessment
- STB video output quality assessment
- Detection of up-scaled SD material to HD (blurring measurement)
- Detection of the bad deinterlacer temporal processing (field offset detection)



Artifact detection

Packet loss and **blocking** artifact detection related to error in signal transportation media or MPEG2 compression.

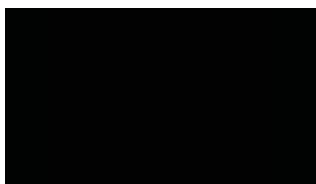
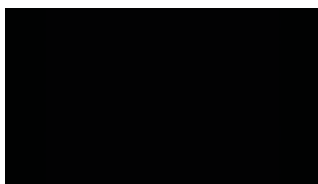


Packet loss



Blocking

Image absence which is defined as zero temporal activity and zero spatial activity for a specified period of time when a known moving video output should be present.



Blurring which is defined as a loss of image sharpness on a static image which persists for a specified number of video frames.



Ringing which is defined as a high frequency noise near edges.



Field loss which is defined as "interlace-like" artifacts.



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