PQA600 Picture Quality Analyzer Fact Sheet
Accurate, reliable, and repeatable picture quality measurement
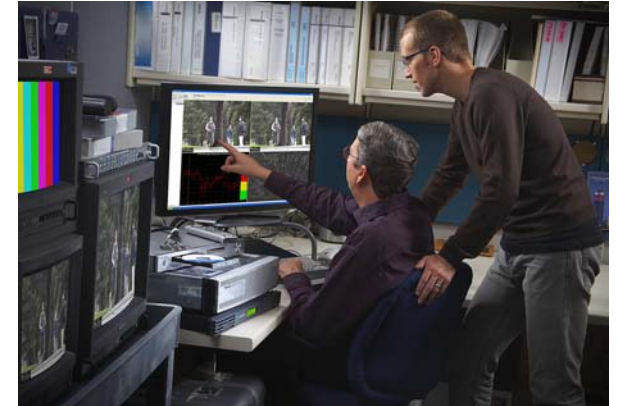

Deliver products or services with differentiated picture quality

Picture quality analysis that matches viewers' perception

Features	Benefits
Objective <u>perceptual</u> measurements based on an accurate human vision system model	Ensure measurement results match viewers' subjective ratings
	Achieve and verify differentiated picture quality with cost-effective and time-efficient repeatable assessments
	Reduce the time and effort needed to detect, diagnose and correct picture quality problems
	Optimize video processing algorithm performance
	Clearly state the quality acceptance criteria for video products, systems or content
	Easily share the conformance measurements and results throughout the organization or with suppliers
Attention modeling software and attention-weighted picture quality measurements	Unique tools for optimizing video processing algorithms and video distribution systems
Measurements for artifact detection, artifact-weighted picture quality and classic PSNR	Help isolate and correct quality problems and evaluate quality tradeoffs

State-of-the-art picture quality analysis

Full-Reference Picture Quality Measurements
- Predicted Difference Mean Opinion Score (DMOS)
- Picture Quality Rating (PQR)
- Peak-Signal-to-Noise-Ratio (PSNR)

Account for Real-World Applications and Conditions
- Compare reference and test video having different resolutions and frame rates
- Evaluate picture quality using user-selectable display technologies and viewing conditions

Efficient Measurement
- Integrated graph display to interpret the result easily
- Region of interest selection for further detail evaluation
- Automatic spatial and temporal alignment
- Simultaneous SDI signal generation and capture
- Automated testing using XML scripts
- Pre-configured measurement calibrated by the HD testing conducted in 2009. Performance report is available in the application note (28W-24876-0)
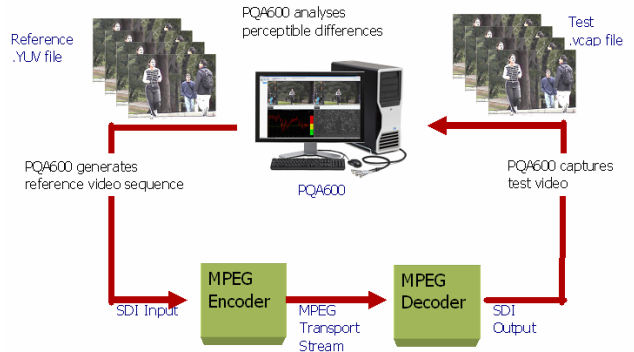
www.tektronix.com/pqa600

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PQA600 Picture Quality Analyzer Fact Sheet
Key Specs and Ordering Information

PQA600

Picture Quality Analysis System

Note: PQA600 does not include a PC monitor. A monitor is to be provided by the user and we recommend:

- Dual-link DVI ports
- Up to 2560x1600 resolution

Opt. SDI   SDI Video Generation and Capture Card

Service Options

CA1	Provides a single calibration event or coverage for the designated calibration interval, whichever comes first.
C3	Calibration service - 3 years
C5	Calibration service - 5 years
R3	Repair service 3 years (including warranty)

Hardware specifications

Processing	Dual Xeon six core processors
Input / Output	SDI video generation and capture card w/ two SDI inputs and two SDI outputs
Video File Storage	1 TB x 5 HDD with RAID structure
Display	Up to 2560 x 1600 resolution on dual-link DVI

Supported File Formats

.yuv	UYVY, YUY2, YUV4:2:0 planar, YUV4:4:4
.rgb	BGR 24-bit, GBR 24-bit
.avi	UYVY, YUY2, BGR 24-bit, GBR 24-bit
.vcap	
MPEG-2, MPEG-4, H.264/AVC, VC-1, H.261, and H.263	*requires conversion using MTS4EA, MTS4CC or other file conversion software*

Key Applications	Benefits
Video equipment manufacturing	**Reduce time to market:** More rapidly detect, diagnose and fix picture quality problems. **Enhance profits through improved design:** Optimize picture quality vs. design parameters, specific applications, or content types
Television broadcasting and video content distribution	**Grow business through more efficient system utilization:** Qualify equipment and find system configurations that optimize picture quality vs. system bandwidth, specific applications, or content types.
Video content production	**Exceed customers' quality expectation over a wide range of media and delivery systems:** Evaluate video content quality using measurements that match viewers' perception and accommodate real-world conditions. **Grow business through more effective promotion:** Make measurement that document the quality of video production and post-production processes and outputs.

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