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SERIES J: CABLE NETWORKS AND TRANSMISSION
OF TELEVISION, SOUND PROGRAMME AND OTHER
MULTIMEDIA SIGNALS

Measurement of the quality of service

**Framework for remote monitoring of transmitted
picture signal-to-noise ratio using
spread-spectrum and orthogonal transform**

ITU-T Recommendation J.240

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Framework for remote monitoring of transmitted picture signal-to-noise ratio using spread-spectrum and orthogonal transform

Summary

This Recommendation presents an effective framework for remote monitoring of video quality for contribution and primary distribution of digital television transmission. In this framework, image features are extracted at each link point in the transmission chain using spread-spectrum and orthogonal transform. The extracted image features, i.e., coefficients, are transmitted to the central monitoring room by data circuit that is separated from the video transmission circuit and picture quality is estimated by comparing the coefficients.

A framework for extracting the coefficients is presented below. An example of coefficient extraction suitable for PSNR estimation is described in Appendix I. The theoretical background for PSNR estimation and the simulation results showing the effectiveness of this framework are also described in Appendix I.

Source

ITU-T Recommendation J.240 was approved on 29 June 2004 by ITU-T Study Group 9 (2001-2004) under the ITU-T Recommendation A.8 procedure.

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