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

Digital transmission of television signals – Part 3

**Advanced digital downstream transmission
systems for television, sound and data services
for cable distribution**

Recommendation ITU-T J.382



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Recommendation ITU-T J.382

Advanced digital downstream transmission systems for television, sound and data services for cable distribution

Summary

Recommendation ITU-T J.382 provides specifications that should be considered for advanced digital cable downstream transmission technologies to provide high spectral efficiency schemes saving transmission resources for downstream in hybrid fibre coax (HFC) based networks.

This Recommendation covers the common definition of framing structure, channel coding and modulation for television, sound and data services including high quality broadcast and multicast services distributed through HFC based networks.

History

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Introduction

As the demand for high quality broadcast and multicast services from the consumers' side is increasing, cable operators are diligently researching more efficient ways to transmit those services through hybrid fibre coax (HFC) based networks.

Modulation and coding schemes for global use in cable industry are based on [b-ITU-T J.83], which was developed and deployed in the 1990s. These technologies, specified in [b-ITU-T J.83], can support up to 38 Mbit/s per 6 MHz channel when using a 256 quadrature amplitude modulation (QAM) modulation scheme and thus do not serve demands for advanced digital downstream transmission systems.

In the near future, advanced digital transmission systems including enhanced coding and modulation, can replace digital cable transmission systems defined in [b-ITU-T J.83].

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