

**A Method to Evaluate the Appropriateness of Introduction of High Speed Data
Transmission System Using Metallic Telecommunication Lines into Railways**

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The high speed data transmission systems using metallic telecommunication lines such as xDSL(Digital Subscriber Line) systems are being introduced in railway systems to substitute for analog carrier and to supplement optical carrier. Before this study, the evaluation method was devised, by which appropriateness of introduction of high speed data transmission systems using normal state telecommunication lines into railways can be judged. In this study, we propose an improved evaluation method, which takes into consideration the influence of the line outage on electrical characteristic of telecommunication lines, and delay time and jitter when the transmission systems are connected in tandem.