

# Coexistence of Korea's DVB-T2 and Japan's ITS using 700MHz frequency band

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**Abstract**— In this paper, we analyze the effects of interference between Korea's ultra-high definition TV broadcasting system and Japan's intelligent transport system using the 700 MHz frequency band when considering a practical deployment of both systems. We performed Minimum Coupling Loss (MCL) method to evaluate how much interference from the Korean UHDTV system is imposed on the Japan ITS system. We also employ the Advanced Propagation Model (APM) and ITU-R P. 452-15 model to calculate the propagation loss occurring in ducts. Our study can be applied to the deployment planning for each system with an interference impact acceptable to both parties.

**Keyword**— DVB-T2, ITS, Interference, Ducting



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