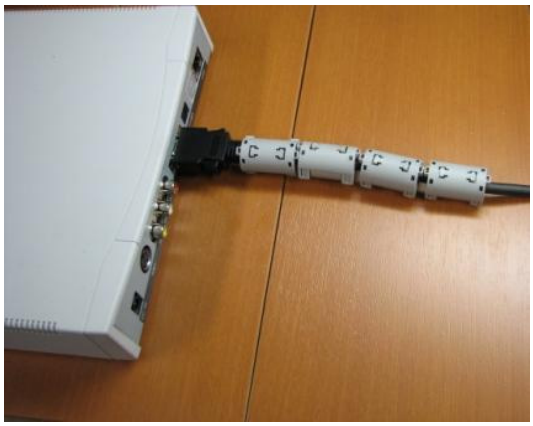
Mitigation method/Results/Conclusion

Mitigation method

As this problem was caused by the conducted disturbance wave from the IP-STB, four ferrite cores (Attenuation > 20 dB @ 10-100 MHz) were installed on the component video cable as shown in Figure 1.13-4. Figure 1.13-5 shows the variation of the D/U ratio after the installation of those ferrite cores. As the figure shows, the D/U ratio rose to about 45 dB, and this problem was solved.



Miti(08)_F1.13-4

Figure 1.13-4 – Mitigation by ferrite cores

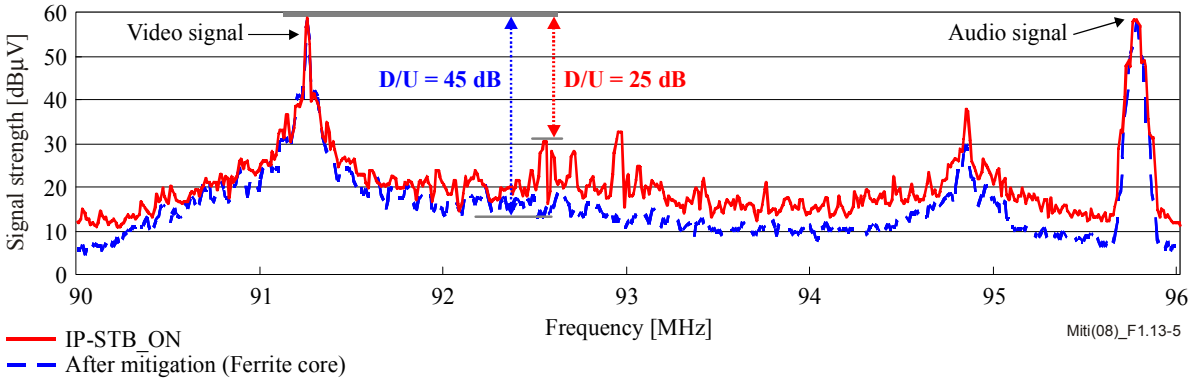


Figure 1.13-5 – Variation of D/U ratio after mitigation

Conclusion

In this NGN trial, communication and broadcasting equipments are connected by cables such as a video cable; therefore, both equipments can become disturbance sources. By checking the spectrum of measured signals, in this case, it was found that the IP-STB was a disturbance source. The requirements of video ports should be defined to prevent EMC problems on NGN services.