

Measurement/Searching techniques/Experiment

As shown in Figure 1.13-2, video noise occurred in a channel (91.25 MHz) of analogue TV broadcasting when the IP-STB was turned on. This problem was solved when the IP-STB was turned off or when the component video cable was disconnected. The trouble source was considered to be the conducted disturbance wave from the IP-STB.

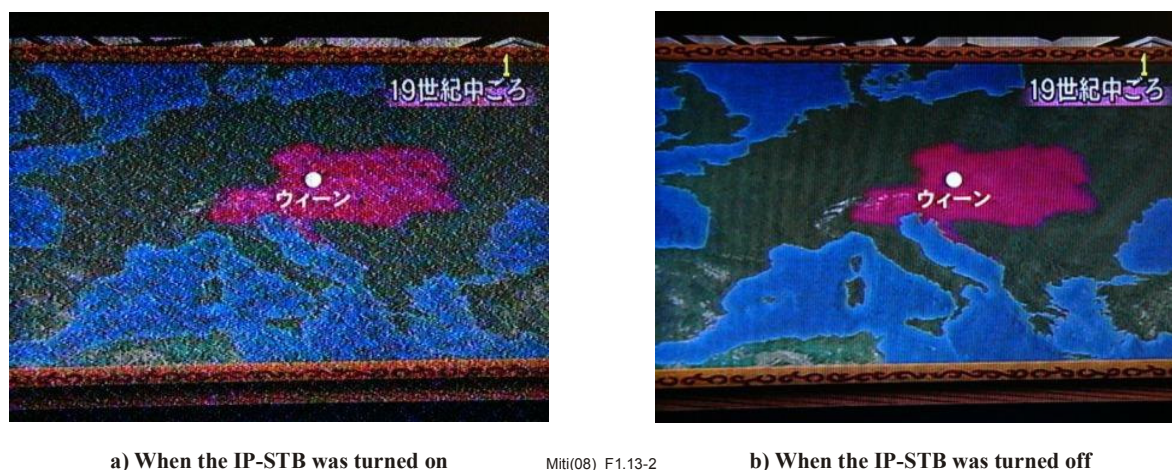


Figure 1.13-2 – Examples of TV screen: Video noise occurred when the IP-STB was turned on or off

Measured result of the conducted disturbance wave

The TV broadcasting signal and conducted disturbance wave were measured at the measurement point shown in Figure 1.13-1. Figure 1.13-3 shows the measured spectrum of the received signals. The desired signal to undesired signal (D/U) ratio was 25 dB when the IP-STB was turned on, and 45 dB when the IP-STB was turned off. As the D/U ratio of 40 dB is required for analogue TV broadcasting, this video noise on the TV picture was caused because the required D/U ratio was not being achieved.

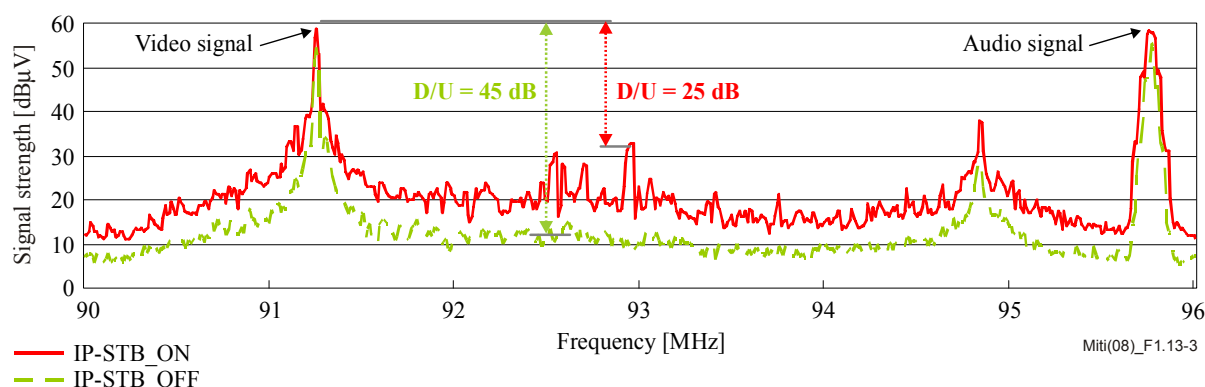


Figure 1.13-3 – Measured results of received signal spectrum