

Mitigation method/Results/Conclusion

The centre frequency of the DSU switching noise was about 10 kHz; therefore, the common-mode filter (F2-40K) for mitigations shown in Figure 1.2-4 was selected. The central frequency of the filter was 40 kHz and it was effective for the switching noise of this case. By applying the filter, the current in the line connected to the DSU was reduced, as shown in Figure 1.2-5. The current level was reduced to less than 10 mA and the acoustic noise problem was solved.

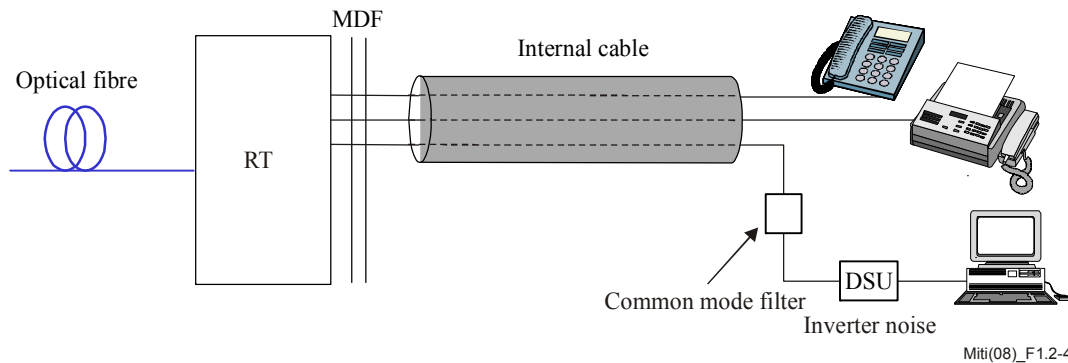


Figure 1.2-4 – Applied mitigation using common mode filter

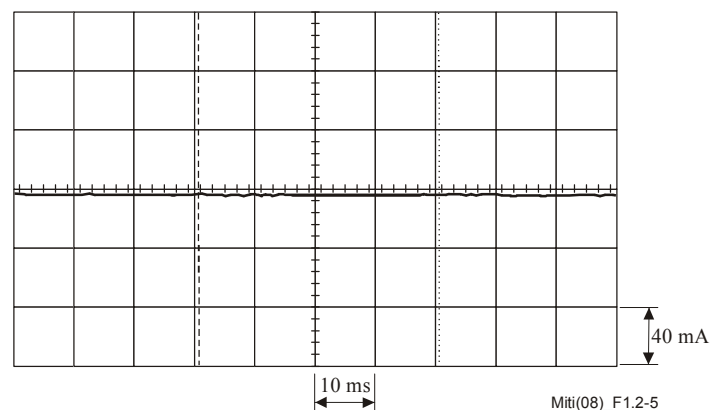


Figure 1.2-5 – Wave shape of the current in the line connected to the DSU, after the mitigation

References

Rec. ITU-T K.37; Annexes A and B.