

Isolation measurement of Shielded Room

By :- SSK, PAR, SBB.

Following are the test result of RFI measurement done at Shielded Room.

Test Procedure:

1. Measurement done at 3 meter distance with transmitting antenna inside the shielded room.
2. Log periodic antenna used as receiver is kept outside the shielded room with 20dB preamplifier.
3. Measurement done with CW signal and it is varied from 100 MHz to 2 GHz in steps of 100 MHz
4. The directions mentioned is room facing direction i.e. the side on which measurement was done with antenna facing the room.

Measurement Result:

The isolation measurement shows very poor isolation from door side. The reasons observed and suggestions for improvement are listed below.

1. The metal rod connecting the inner handle and outer handle on the front door act as radiator. This has to be replaced with new lever type locking arrangement.
2. The screws provided for the finger line strip is spaced wide apart. At least every 2" we should have good screw contacts.
3. Continuous brass fitting should have brazing joints without any break in contact. Mesh is provided at bottom but not at the top. Hence Brazing is needed at all corners.
4. All electrical fittings should have shielded entry and the corresponding electrical cable entry should have filtered connectors.

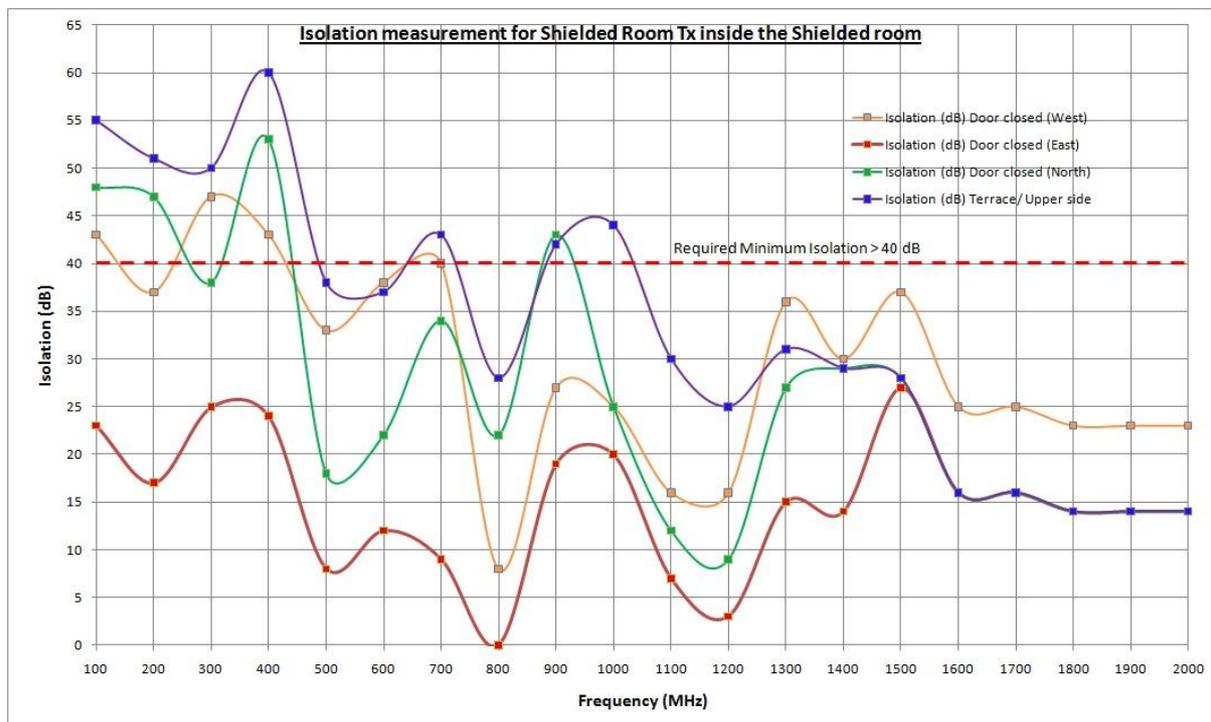


Fig. 1. Isolation Measurement of Shielded Room.



Brazing is required to ensure continuity.



Brazing is required to ensure continuity on the corner



Gap between two screw at least two inches is required.



There should not be any gap between brass plate and finger line clip.



Filtered Power line supply with filtered telephone line connection should be provided.



Door handle should be with new lever type arrangement.



Ventilation window and glass window needs screw arrangement at least every two inches.

