Date :- 26th March 2011

RABIT CARD RFI MEASUREMENT REPORT

-By SSK, PAR, SBB.

Following are the test result of RFI measurement done at RABIT CARD on 26th March 2011.

Test Procedure:

1. Frequency Bands 0-500MHz, 500-1000MHz, 1000-2000MHz observed when all equipment power OFF and other observation taken in above mentioned Frequency Bands when RABIT CARD device in power ON condition.

2. Received frequency were measured on R&S Spectrum Analyzer, Log Periodic Antenna used for receiving frequency at 10m distance from RABIT CARD device in horizontal polarization. Amplifier of 20dB gain used in between Spectrum Analyzer and Log periodic Antenna.

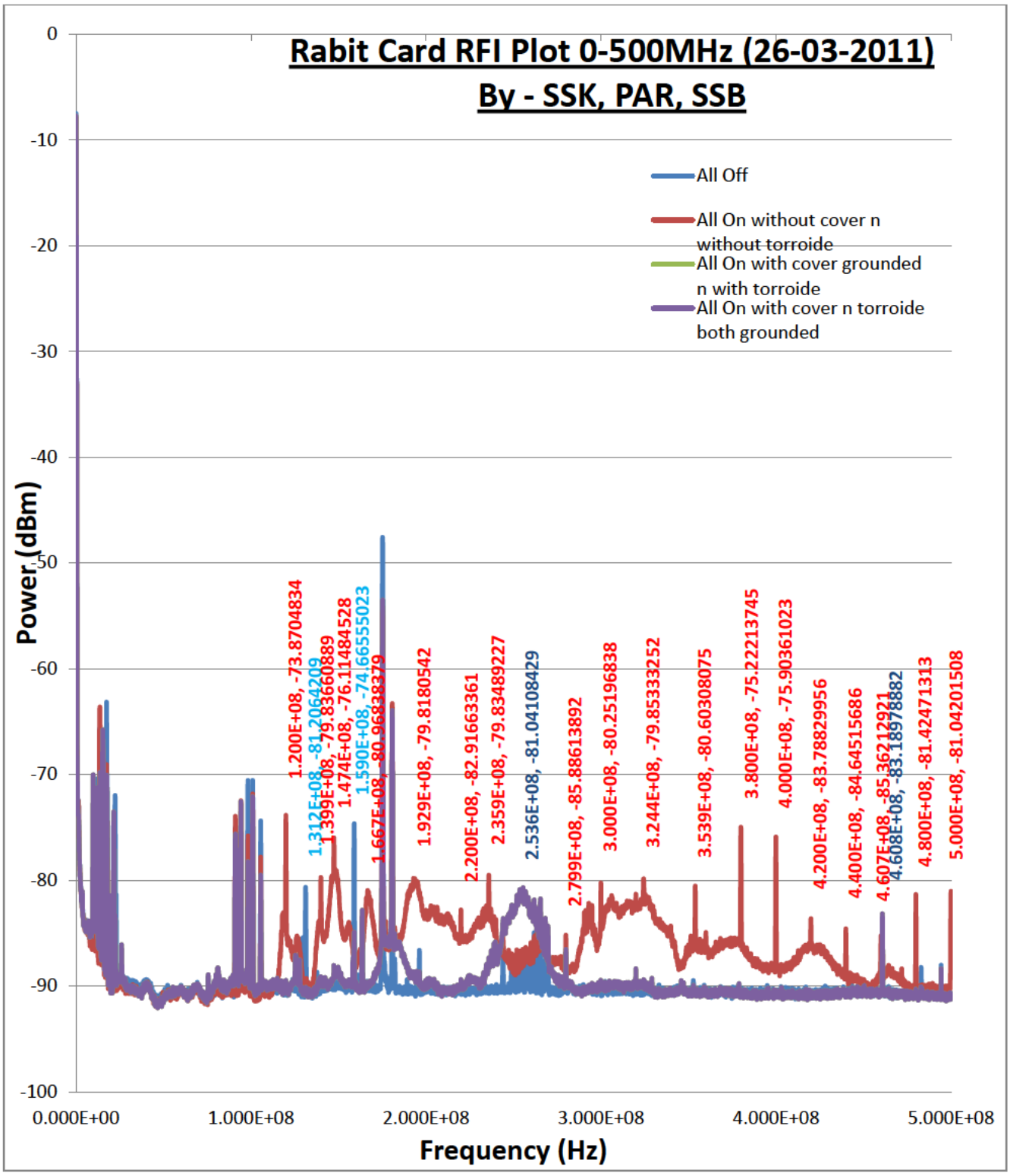
Test Result:

- There is increase in noise floor from 3 dB to 11 dB in the 111 MHz – 475 MHz band.

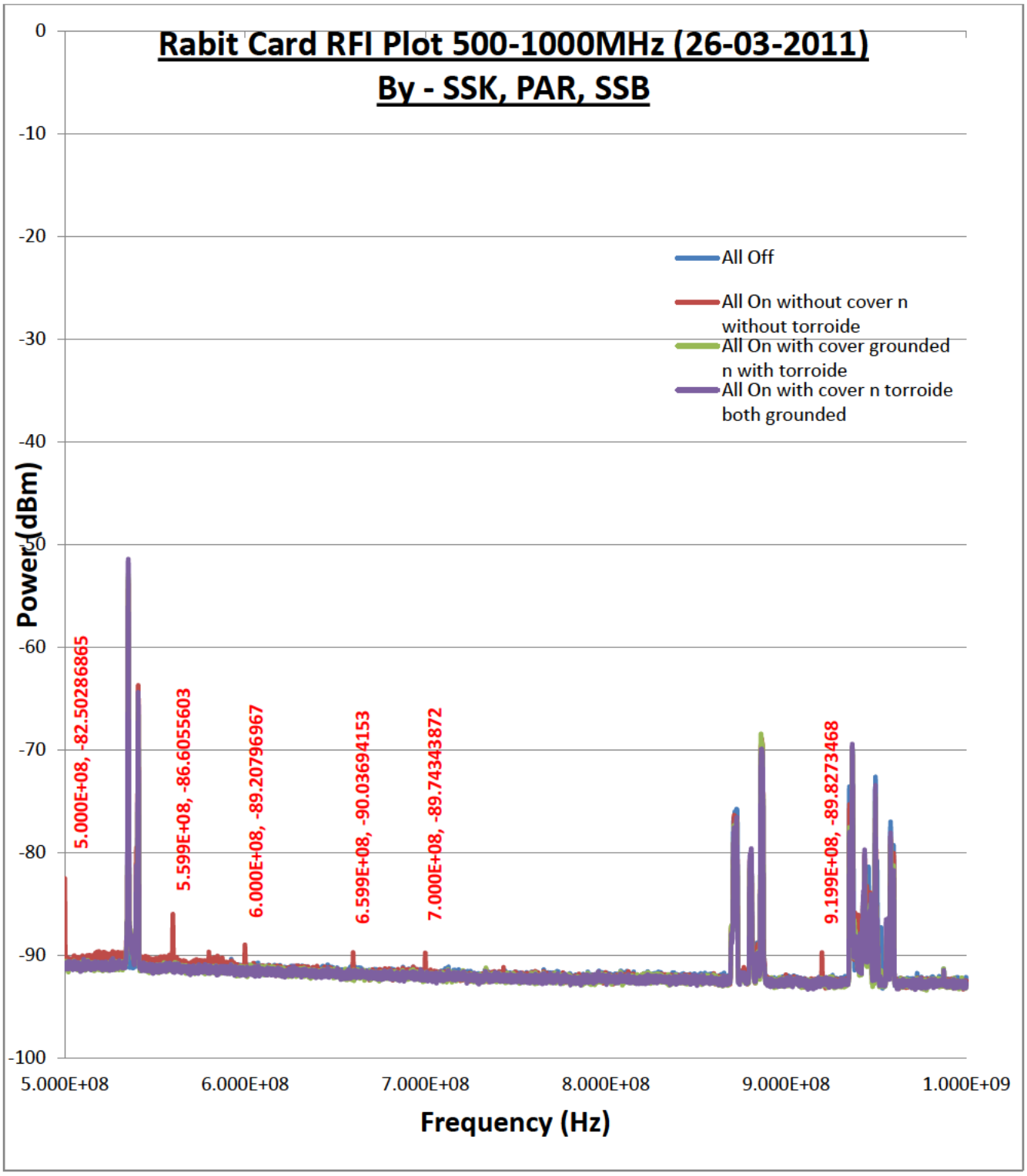
- Many discrete frequency lines spaced at 20 MHz in the 111 MHz - 919 MHz seen

- Noise floor is more at 150 MHz as well as at 300 MHz – 350 MHz band which are coming exactly in the GMRT RF bands.

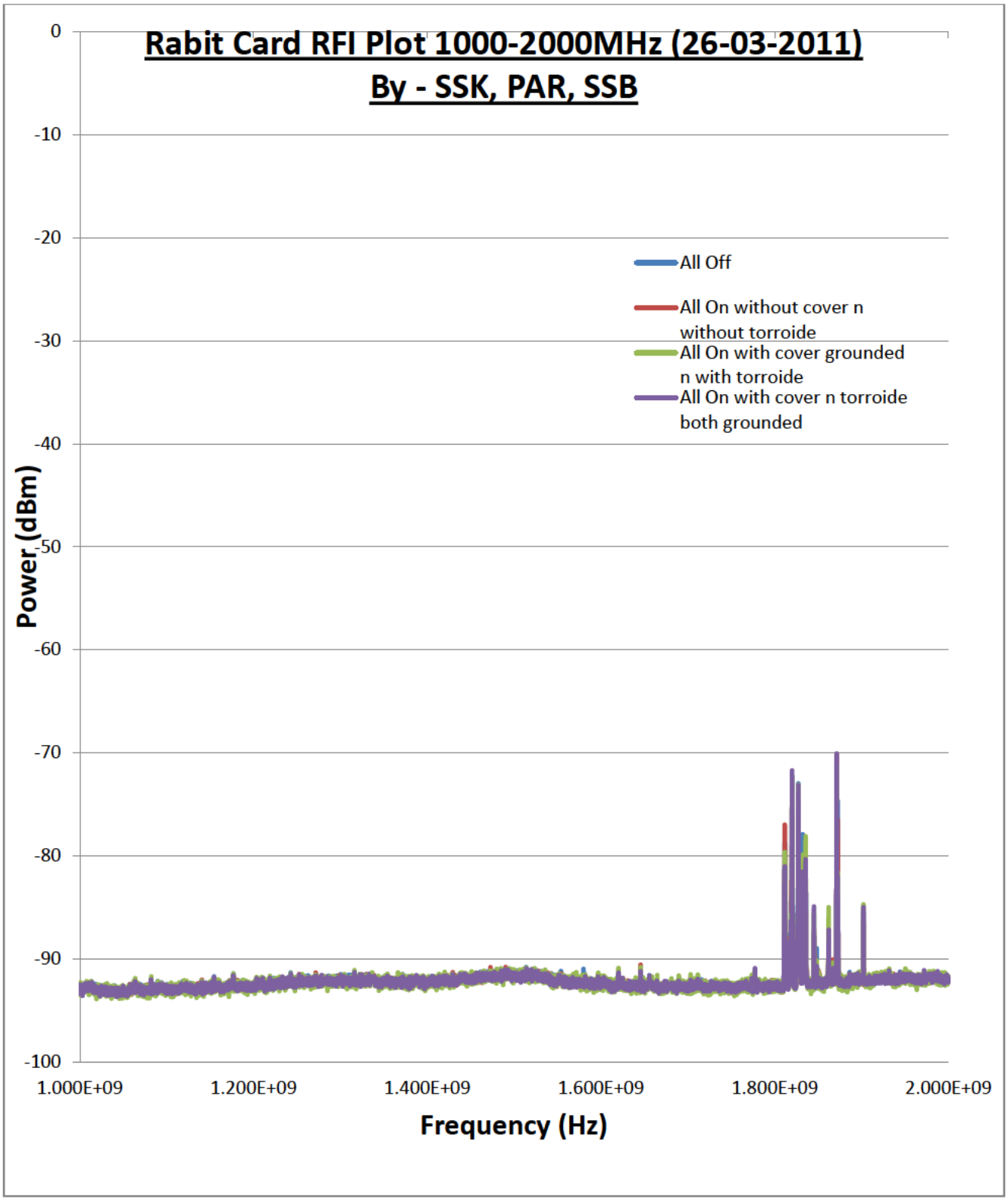
RFI Measurement Plot:



Remark **:-** After power ON condition of RABIT CARD 0-500MHz Frequency Band shows so many discrete lines most of them are equally spaced of 20MHz.

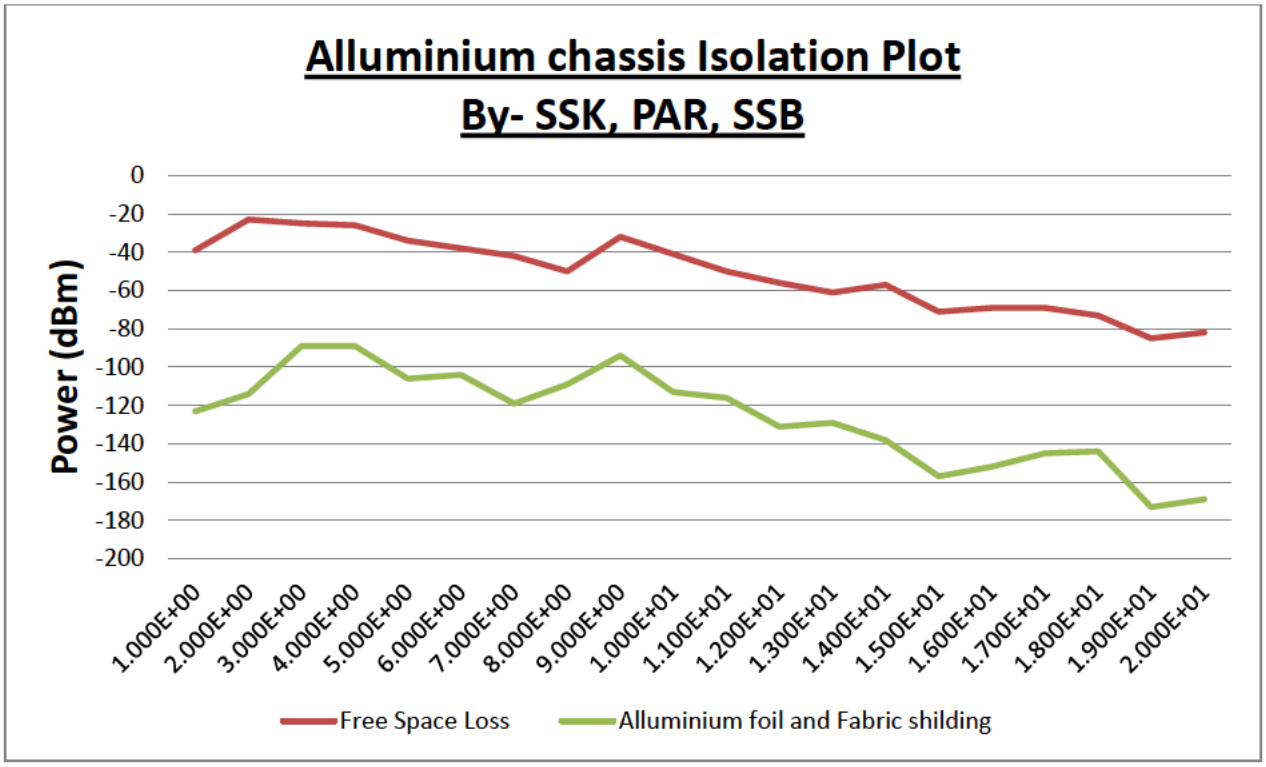


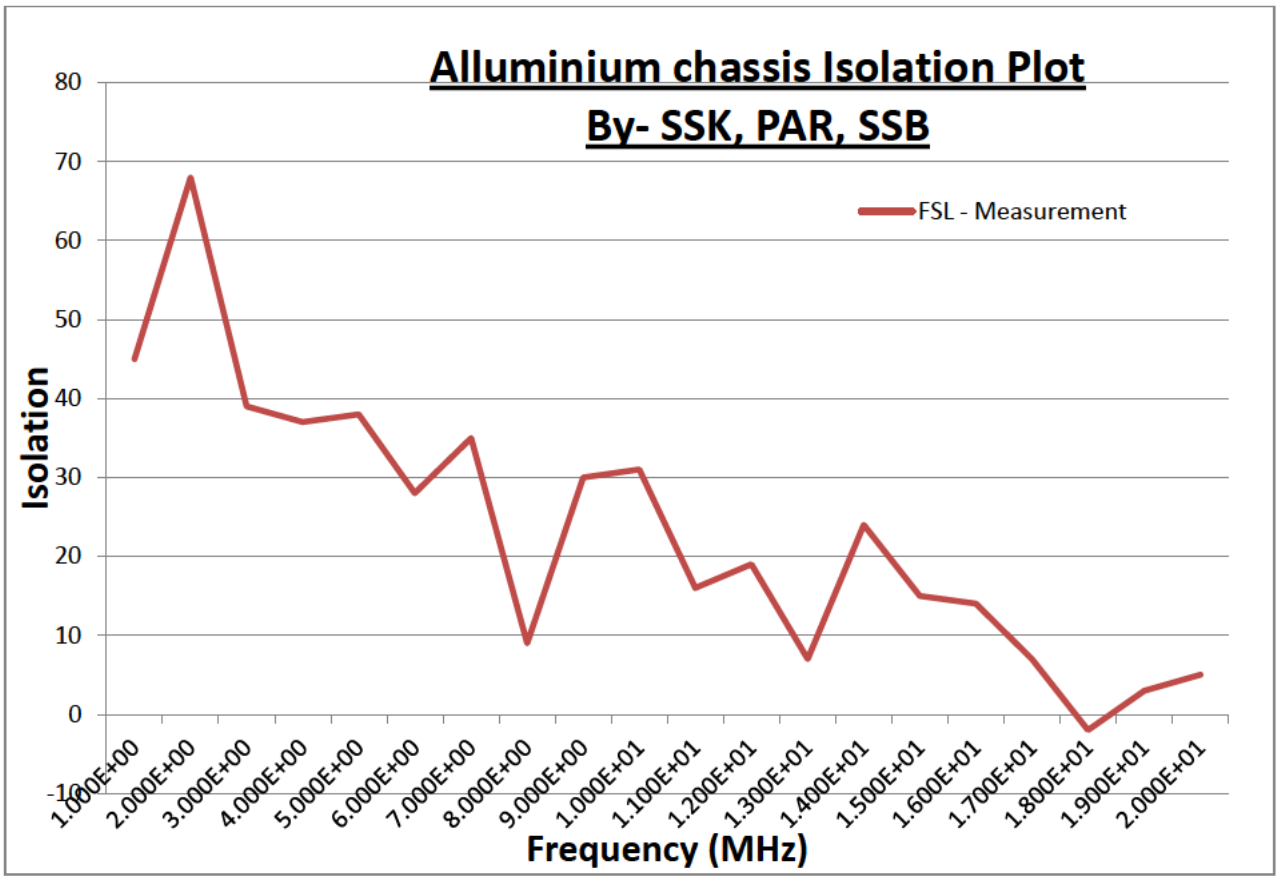
Remark **:-** After power ON condition of RABIT CARD 500-1000 MHz Frequency band shows discrete lines but it is in some specific pattern which are equally spaced of 40 MHz. There are two sub bands which having 60 MHz space in between them.



Remark :- There is no any RFI line seen in the 1000-2000MHz band.

We have checked the Isolation for the Aluminium chassis used for the RABIT CARD device. The measurement plot as follows.





Result :- We got better isolation in the measured band.