

CALAMP

LMU3000

1st Evaluation

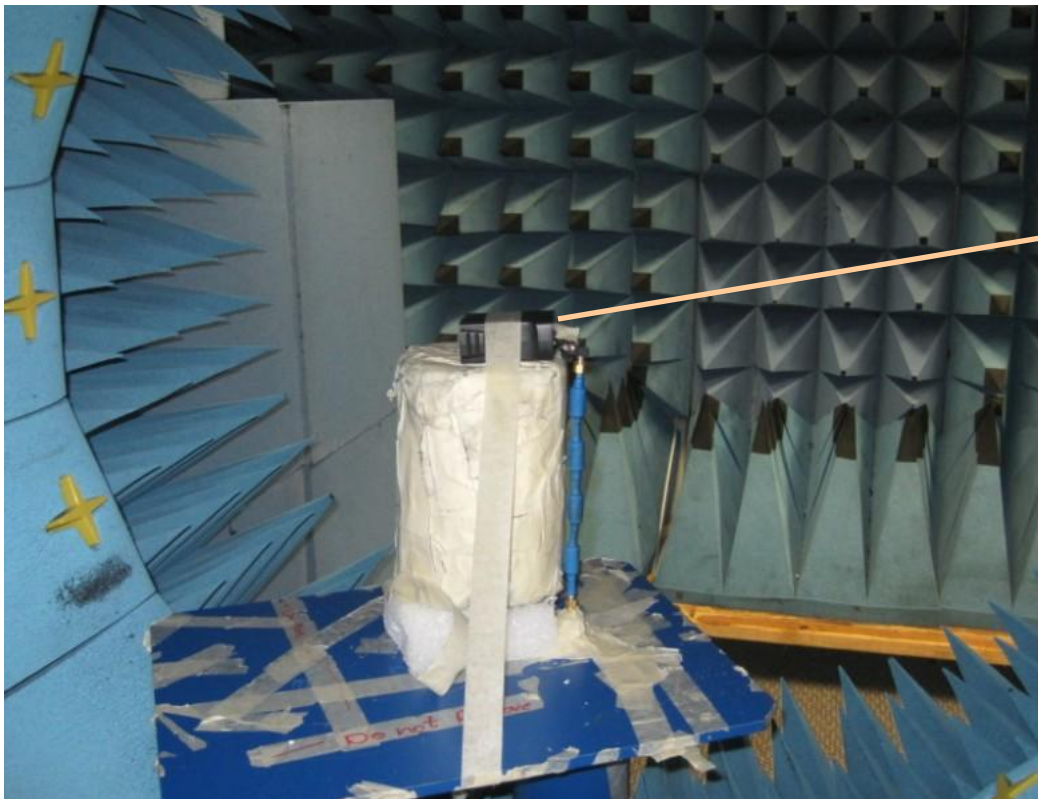
San Diego Design Center (SDC)

<January 4, 2011>

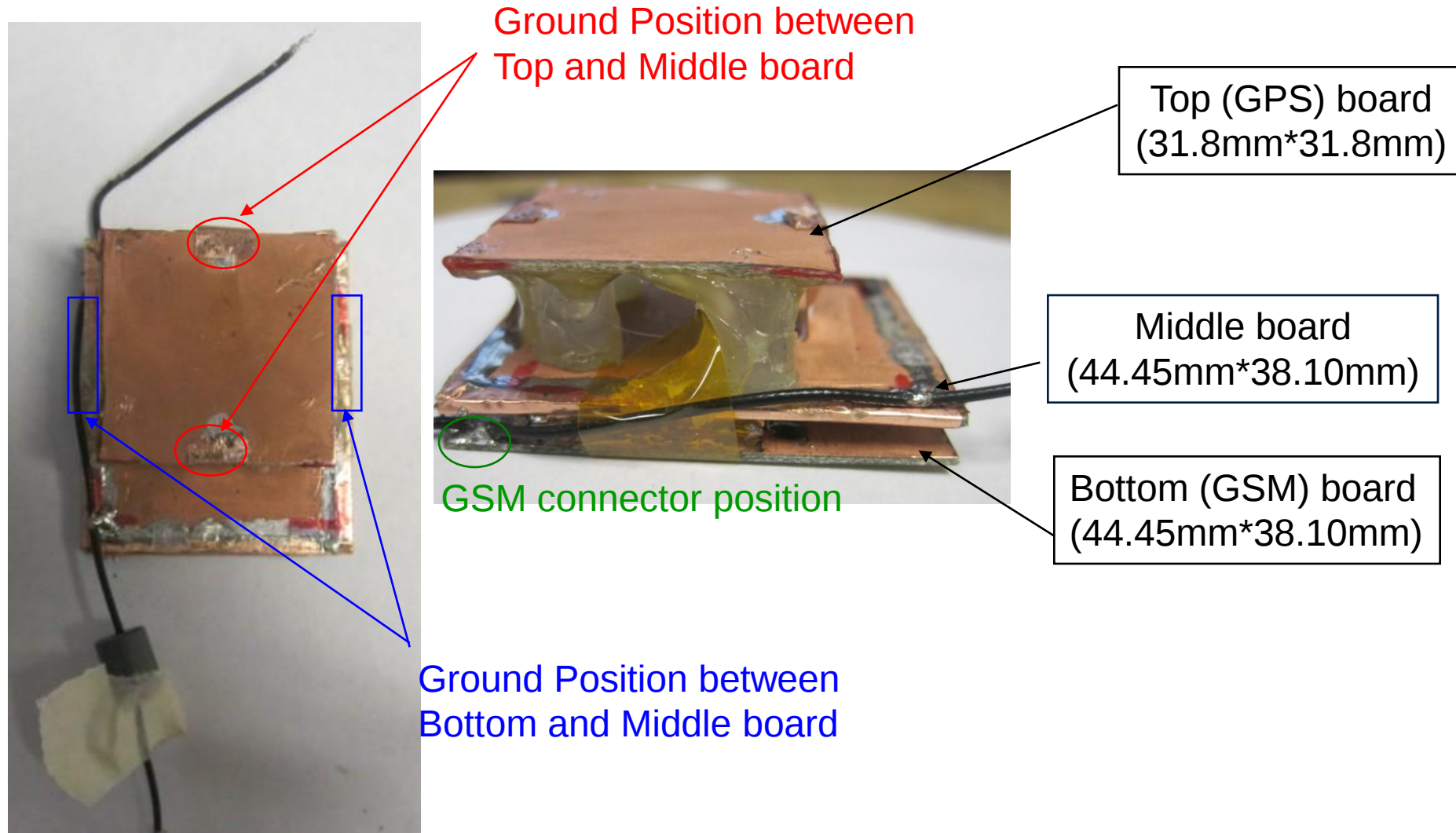
Revision History

Revision	Date	Description of changes
Rev. A	04-Jan-2011	1 st Evaluation

- Received 2D drawing and a plastic housing from Calamp.
- Created a mockup according to the 2D drawing.
- Design GSM antenna with cable on the plastic housing.
- Currently the antenna is placed on the out side of the housing for easy antenna development.
- Data Taken:
 - Return Loss
 - Efficiency



Test Configuration



PCB and Housing Assembly



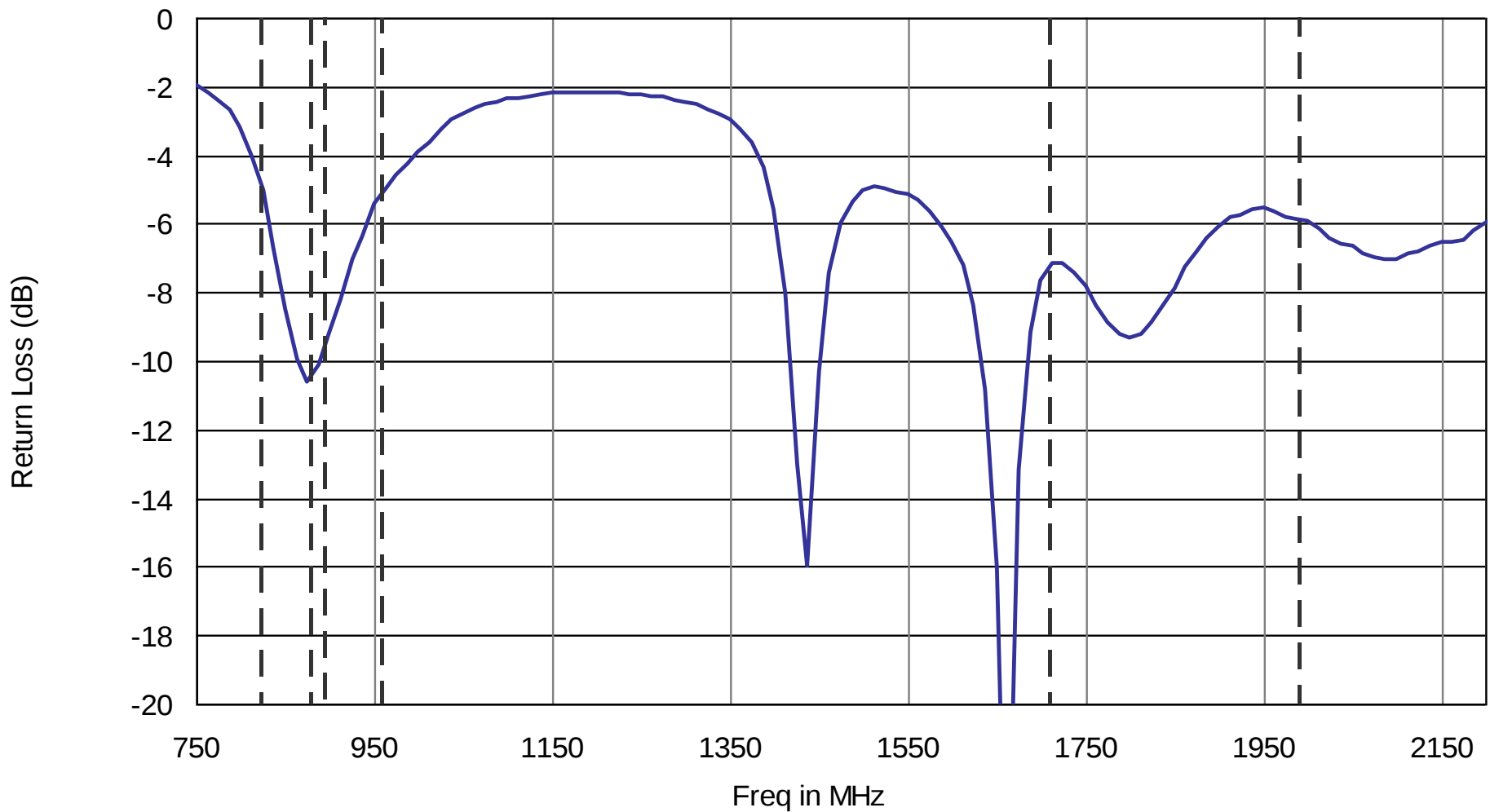
Test Antenna



Cable through out here

Plastic housing received from Calamp

Return Loss



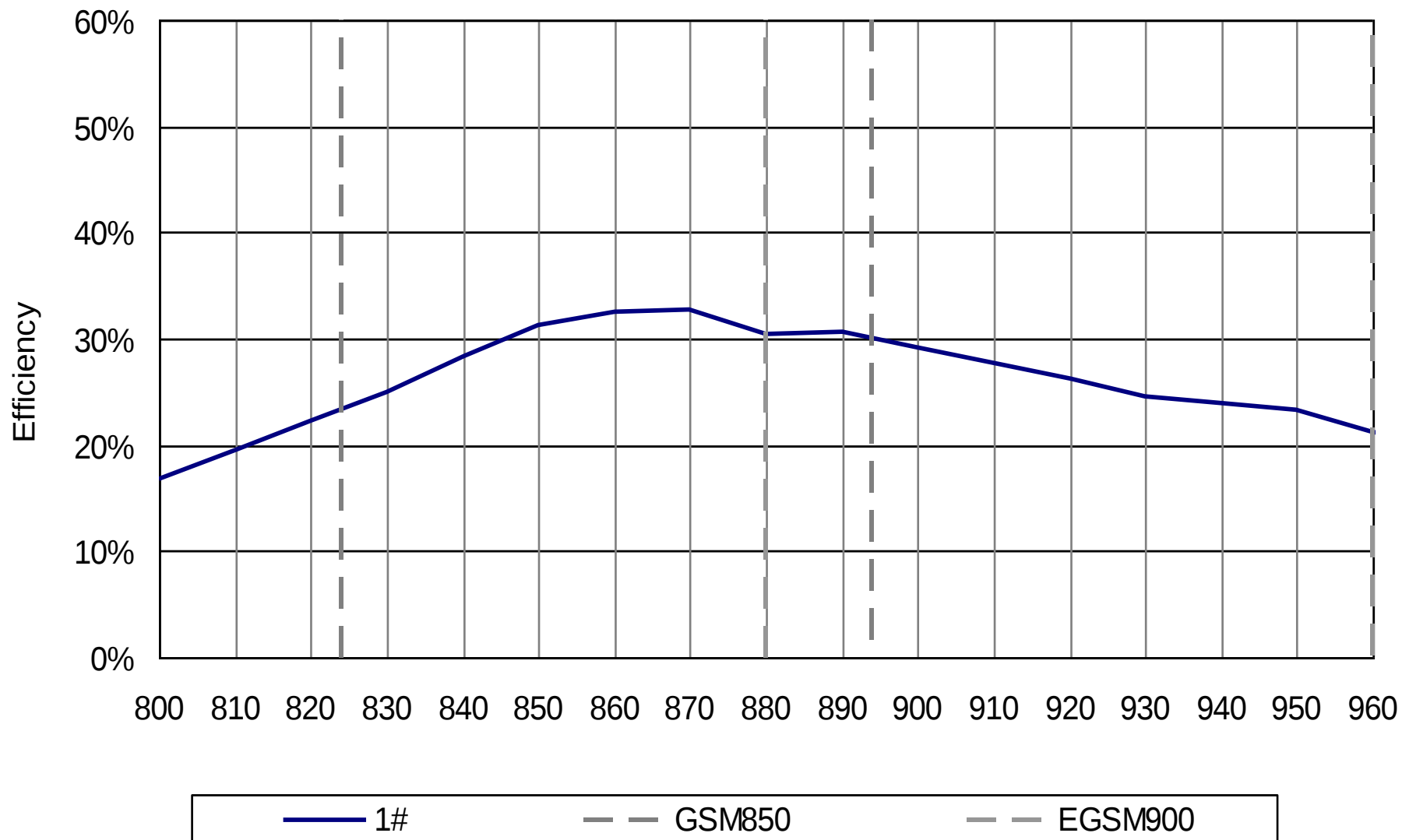
— 1#

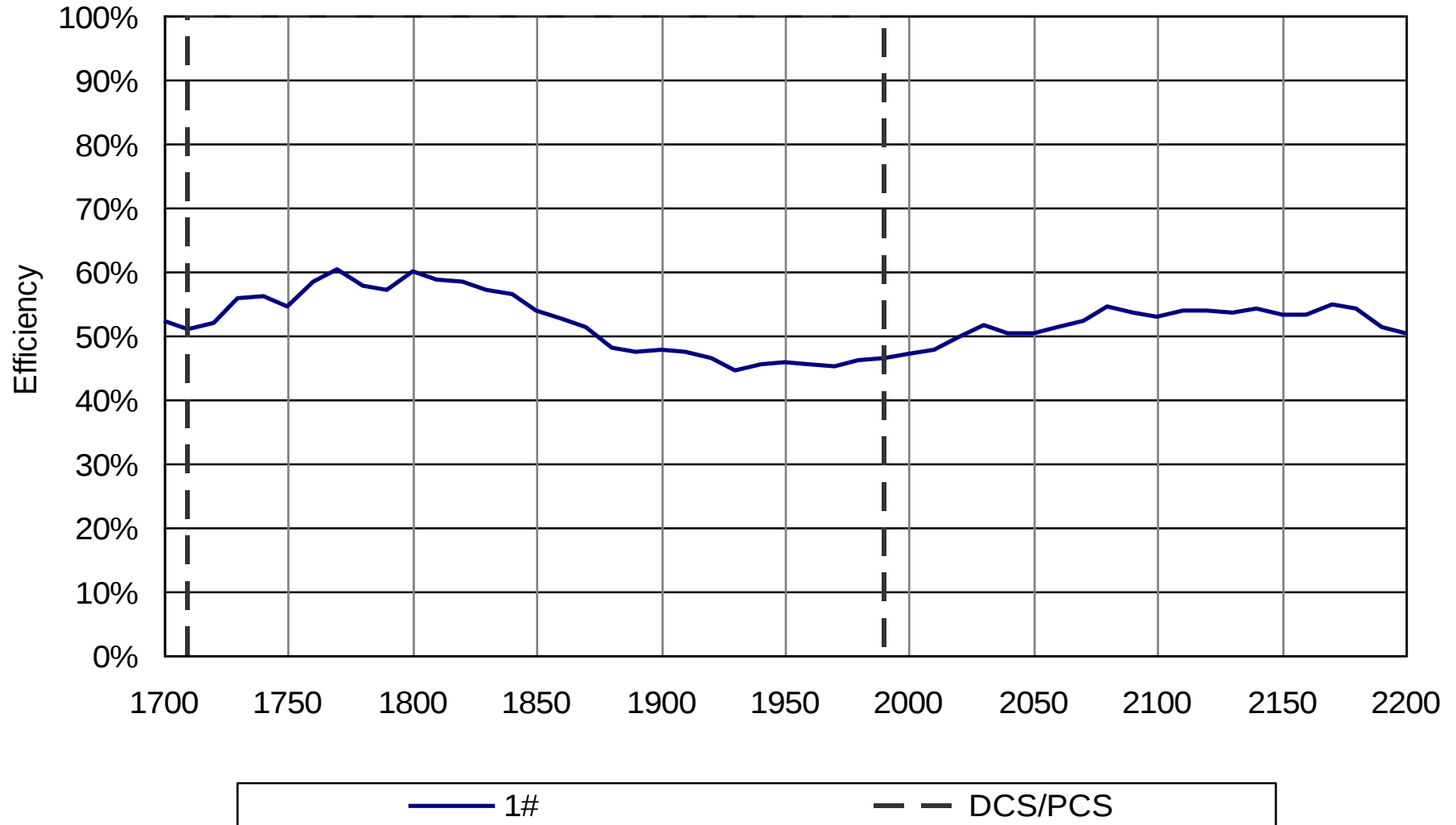
— — GSM850

— — EGSM900

— — DCS/PCS

Efficiency





- The low band bandwidth is a bit narrow due to its short ground size. The average efficiency of Low band is around 30%.
- High band average efficiency is around 50%.
- For better antenna development and production assembly , top and bottom types of housing is recommended.
- ET would need more input from Calamp regarding the mechanical housing design.
- Suggest to modify Calamp's existing top and bottom types housing for the next antenna design cycle.

Thank You!