The Galileo onboard power amplifier needs to generate four signals (carriers) in two different frequency bands. The output power for each individual signal is more than 50 Watts. Solid state amplifiers are preferred because of their ruggedness. However, obtaining the required output power levels with a certain efficiency and within preset linearity requirements proves to be a key requirement for the optimisation of the payload and indeed, the Galileo satellites.

The design is close to completion and the qualification of SSPAs for all Galileo frequency bands is being initiated.

**Main Performance Characteristics:**

**LB SSPA (1.164 - 1.219 GHz)**
- Volume: 107x239x62 mm
- Mass: 1300g
- Out Power: 50W (C.W.)
- DC power cons.: 125W
Development History

- Development contract awarded in 2000 to Galileo Avionica
- Baseline design based on state of the art devices and qualified technology
- Development of breadboard models completed by end of 2001
- Development of high and low band EM units completed by end 2002, full qualification test campaign (including EMC, TV and Vibration test) performed

Measured output spectrum for the LB SSPA when loaded with a Tri-Code Hexaphase signal

Coming soon:

Delivery of three EQM models for the GSTB-V2 Satellite.

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