

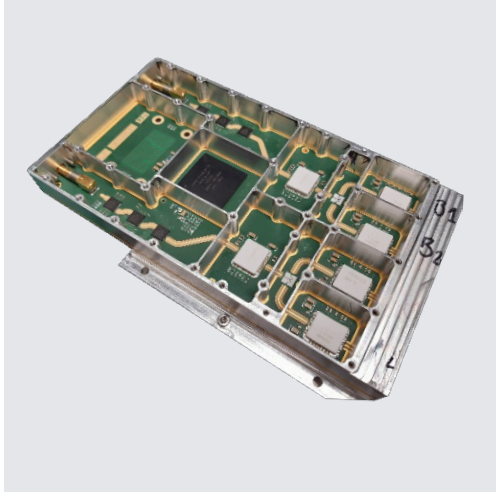


# Linearized Ka/Ku-Band Solid State Power Amplifier

**2 inputs, 2 outputs 40W**

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## 2 inputs, 2 outputs 40W



Thales AVS MIS offers a complete line of Ku-band and Ka-band Space qualified SSPA (Solid State Power Amplifier) solutions, leveraging more than 50 years of broad experience in Space Power Amplification.

Thales SSPAs provide superior features including:

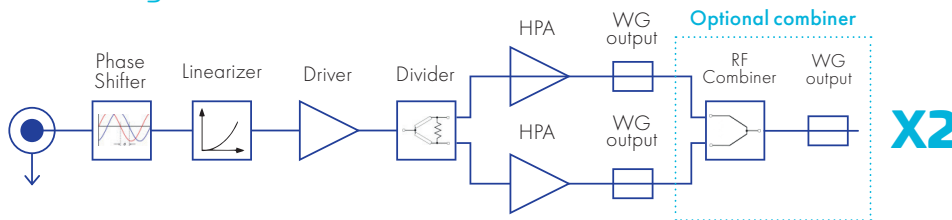
- ◆ Wide band operation in Ka and Ku frequency band
- ◆ High efficiency utilizing GaN technology
- ◆ Linearized performance
- ◆ Conduction cooling
- ◆ Available with EPC or as standalone RF front end (embedded with antenna)
- ◆ TM/TC functions included
- ◆ CAN-BUS compatibility

Additional functions available include:

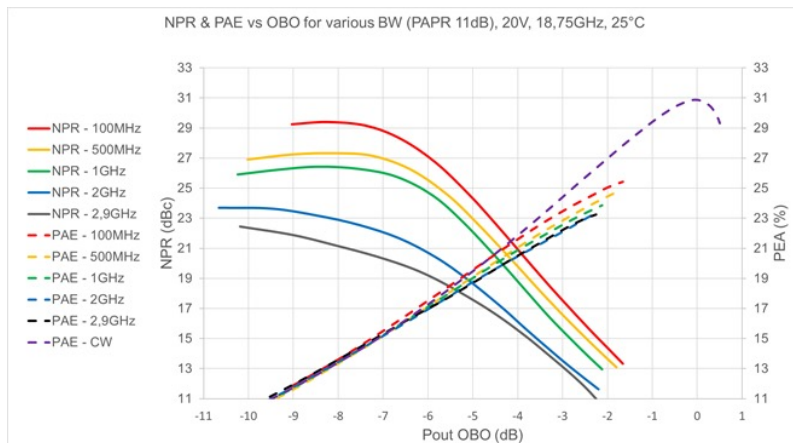
- ◆ Thermal compensation
- ◆ Output Power level flexibility
- ◆ Mute function
- ◆ Thermal and overdrive protections

Thales has qualified a complete library of hermetically packaged space qualified RF and TM/TC components that allow for the optimization of the SSPA design to meet your specific mission requirements.

### Block diagram



### Performances curves



### Key Features:

- ◆ SMP-Lock input
- ◆ Wave guide output

### Ka-Band

- ◆ Frequency : 17.3 to 21.2GHz
- ◆ Instantaneous bandwidth: 2.9GHz
- ◆ 40W Output power @SAT / output (requires optional external 0° combiner)
- ◆ >50 dB Gain

### Efficiency :

- ◆ >30% @SAT without EPC
- ◆ >23% @15dB NPR with EPC

### Ku-Band

- ◆ Frequency : 10.7 to 12.7GHz
- ◆ Instantaneous bandwidth: 2GHz
- ◆ 50W Output power @SAT / output (requires optional external 0° combiner)
- ◆ >50 dB Gain

### Efficiency :

- ◆ >35% @SAT without EPC
- ◆ >28% @15dB NPR with EPC