The **X-Band Solid State Power Amplifier** is the X-band version of Thales Alenia Space Spain’s HPA product suite, building on a comprehensive portfolio of data transmitters with built-in SSPA’s and standalone HPA’s in several frequency bands (UHF, S, C, X, Ku) for all types of space missions and applications: telecommunication, navigation, Earth observation, science, exploration, space vehicles and orbital infrastructure.

- 7W / 14W X-Band SSPA
- GaAs Power technology up to 14W
- New GaN technology option
- Flexible output power by command
- DSN output filter protection option
- X-band transmitter modulator available

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### COMPETITIVE ADVANTAGES

- Cost effective solution
- Space Qualified HiRel GaAs technology with flight heritage
- High power SSPA with commandable power
- Flexible product with in-flight configurability
- Compatible with most of the main satellite platforms: available in 22…50V and 70…100V versions
- Compatible with all type of orbits: LEO, MEO, GEO, Near Earth
GENERAL

- HPA mass: 4 kg
- HPA size: 245 x 325 x 57 mm³
- Primary bus voltage: 100V (other available)
- ALC modes, command for power control
- SMA input / TNC output
- Output built-in isolator
- TM/TC housekeeping interface options:
  - Pulse high level command

MAIN PERFORMANCES

- RF power
  - SSPA configurations for GaAs technology: 7W and 14W
  - On-going development for GaN technology: >30W
- Consumption: 85W for 14W RF out
- Frequency: X-band (8025 to 8500 MHz)

OPTIONAL CONFIGURATIONS

- Output DSN protection integrated filter
- Several interface options
- Flexible output power by command
- Primary power
  - Bus option 1: 22V … 50V
  - Bus option 2: 70V … 100V

EXPERIENCE

- X-Band SSPA for KPLO, KOMPSAT 7 & 7A, EOIRSAT, PLATO
- S-Band SSPA for CLUSTER-II and MTSAT-1R (15 W)
- UHF SSPA for SPAINSAT NG (90 W)
- Over 400 SBT units sold from various product generations for programs such as: Galileo, Sentinel 1-2-3-6, GEO-KOMPSAT-2, Cygnus, OCO, Swarm, Meteosat Third Generation, MetOp Second Generation, EDRS, Athena-Fidus, Sicral 2, PACE, WFIRST, NOVA-C, ATV, HTV, XMM, Cluster, IBEX, Integral…

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