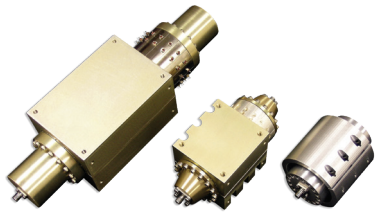
qorvo
part of SKYWORKS

High-Performance SSPA Technology

Delivering a Higher Standard of Efficiency, Reliability and Bandwidth









High-Power, Ultra-Broadband Spatium® SSPA Technology

Qorvo's patented Spatium technology spatially combines GaN MMICs to deliver broadband, high-power SSPAs for communications, radar, electronic warfare and other RF applications. Standard and customizable platforms span 2 to 40 GHz and deliver up to 750 W CW, providing a solid-state alternative to TWTAs with system-level SWaP-C advantages.

Across up to a decade of instantaneous bandwidth, Spatium SSPAs can provide higher output power and efficiency than conventionally combined solid-state products.





Benefits of Spatium Technology

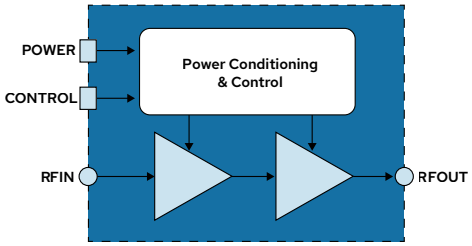
- Up to a decade of instantaneous bandwidth
- Efficiently combines 16 GaN MMIC HPAs
- Graceful degradation and solid-state reliability, no warm-up time needed
- Mission-ready TRL 9
- Instant-on operation from an 18-28 V supply

Applications

- EW/jammers
- Radar/SAR systems
- Satellite communications
- Airborne, shipborne and terrestrial systems
- Test instrumentation

Integrated Spatium SSPA Modules: QPR0220 and QPR3238

Integrated driver and Spatium SSPAs, unified power conditioning, single-unit testing and fault monitoring, simplifying system integration and improving reliability.



The High-Power SSPA Portfolio

In addition to Spatium spatially combining SSPAs and integrated modules, Qorvo offers planar amplifiers designed to support select Spatium platforms. The tables below distinguish the two product groups.

Spatium SSPAs and Integrated Modules

Frequency (GHz)	Psat (W)	Small Signal Gain (dB)	Power Gain (dB)	PAE (%)	Voltage (V)	ECCN	Part Number
2-6	250-320	30-33	18-19	30-37	24	3A001.B.4	QPB0206N
2-18	100-200	17-20	11-14	15-35	20	3A001.B.4	QPB0218N
2-18	120-263	14-18	8-11	10-25	18	3A001.B.4	QPB0220N
2-18	120-263	53-60	36-39	13-24	18	3A001.B.4	QPR0220
6-18	162-288	15-19	9.1-11.6	15-24	18	3A001.B.4	QPB0618N
8-11	590-740	27-30	19.7-20.7	31-39	28	3A001.B.4	QPB1024
13.4-15.5	590-645	33-37	23.7-24.1	25-28	28	3A001.B.4	QPB1316
18-40	16-32	18-25	10-13	6-14	18	3A001.B.4	QPB1840N
18-40	80-126	13-17	10-12	8-14	18	3A001.B.4	QPB2040N
27.5-31	150-200	21-24	13-14	22-26	22	3A001.B.4	QPB2731N
32-38	126-155	18-25	8-9	13-15	24	3A001.B.4	QPB3238N
32-38	126-155	55-80	51-52	15-17	24	3A001.B.4	QPR3238
34-36	316-347	21-25	16-16.4	15-17	28	3A001.B.4	QPB1111

Planar Multistage Lower Power SSPAs

Planar SSPAs that can be stand-alone SSPAs or support select Spatium platforms as driver SSPAs.

Frequency (GHz)	Psat (W)	Small Signal Gain (dB)	Power Gain (dB)	PAE (%)	Voltage (V)	ECCN	Part Number
2-18	8-16	34-38	25-28	12-21	18	3A001.B.4	QPB0220J
2-18	20-40	40-53	40-43	10-20	18	3A001.B.4	QPB0618J
32-38	14-20	50-65	36.5-38	12-15	24	3A001.B.4	QPB3238J

© 11-2026 Qorvo US, Inc. | QORVO and SPATIUM are trademarks of Qorvo US, Inc.
Other trademarks and trade names are those of their respective owners.

www.qorvo.com/spatium
info-spatium@qorvo.com

qorvo®
part of SKYWORKS®