

Microwave Power Modules (MPM) and Solid-State Power Amplifiers (SSPA)

Solutions for Every Mission



Together We Can Go Farther.

Stellant Systems is a leading provider of Microwave Power Modules (MPMs) and Solid State Power Amplifiers (SSPAs), offering a range of frequency bands and power levels to meet diverse mission requirements. Our MPMs and SSPAs deliver proven performance across aerospace and defense applications. Qualified for space, ground, sea, and airborne platforms, these compact, lightweight, and highly reliable high-power amplifiers drive next-generation advancements in communication, electronic warfare, radar, and other microwave and millimeter wave systems.

FEATURES

- Compact, lightweight, high-efficiency & reliability
- Covers 2-235 GHz, delivering 40-300+ W output
- Pulsed and CW versions
- 270 VDC and 28 VDC prime power versions
- Fully compatible with software-defined radios

OPTIONS

- Customizable
 - Can be optimized for specific power and frequency requirement
 - Modified form factor
- Integral equalizer and/or linearizer
- Forced air or internal fan cooling over conduction

Microwave Power Modules (MPMs)



M1225
6-18 GHz, 125W



M1245
6.5-18 GHz, 200W

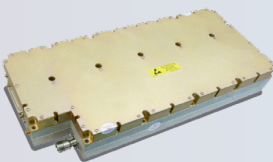


M1350
43.5-45.5 GHz, 100W



M2841
81-86 GHz, 100W

Solid-State Amplifiers (SSPAs)



BME2969-300
2-6 GHz, 300W



BME49189-50
4-18 GHz, 50W



BME69189-100
6-18 GHz, 100W
7-11 GHz, 170W



BPMC99109-1000
9-10 GHz, 1000W
9-10 GHz, 1500W

Scalable Solutions — Product Module Examples

The table below presents a selection of our products, offering a glimpse into Stellant's extensive portfolio. With a wide range of MPM and SSPA solutions, we provide diverse standard designs, all of which can be customized or modified to meet specific requirements, ensuring optimal performance for your application.

Frequency Range	Type	Model	Input Voltage (VDC)	Output Power (W)	Duty Cycle (%)	Dimensions (in.) (L x W x H)
20 - 1000 MHz	SSPA	BME2718-150	18-32	150	CW	6.8 x 6.8 x 1.5
500 - 2700 MHz	SSPA	BME57258-100	18-32	100	CW	8 x 6 x 2
800 - 2500 MHz	SSPA	BME88258-250	18-32	250	CW	15 x 9 x 2.25
1000 - 2000 MHz	SSPA	BME1929-300	18-32	300	CW	15 X 9 X 2.25
2-6 GHz	MPM	M1201	28	80	Pulse/CW	10.75 x 7 x 1.25
	SSPA	BME2969-100	28	100	CW	7.75 x 3.5 x 1.75
		BME2969-300	18-32	300	CW	15 x 5 x 2.25
4 - 18 GHz	SSPA	BME49189-50	28	50	CW	6.5 x 3.5 x 0.84
6 - 18 GHz	MPM	M1225	28	125	Pulse/CW	7.75 x 8 x 1.4
	SSPA	BME69189-100	18-32	100	CW	8 x 6 x 2.5
6.5 - 18 GHz	MPM	M1245	270	200	Pulse/CW	8.5 x 9.75 x 1.5
7 - 11 GHz	SSPA	BME79119-170	18-32	170	CW	8 x 6 x 2.5
		BPMC79119-300	28	300	Pulse 10%	8 x 6 x 2.5
9 - 10 GHz	SSPA	BPMC99109-1000	28	1000	Pulse 10%	9.6 x 6.8 x 2.2
		BPMC99109-1000	28	1000	Pulse 25%	9.6 x 6.8 x 2.2
		BPMC99109-1500	28	1500	Pulse 10%	9.6 x 6.8 x 2.2
13.75 - 14.5 GHz	MPM	M0761	270	55	Pulse/CW	7.5 x 6.25 x 1
	MPM	M1227	28	100	Pulse/CW	7.5 x 4 x 1.25
30 - 31 GHz	MPM	M1290	270	25 (linear)	Pulse/CW	10 x 4 x 1.1
		M1291	270	50	Pulse/CW	8.5 x 9.75 x 1.5
		M1292	28	80	Pulse/CW	8.5 x 9.75 x 1.5
30 - 35 GHz	MPM	M1300	28	50	Pulse/CW	7.5 x 8.5 x 2.6
43.5 - 45.45 GHz	MPM	M1350	28	100	Pulse/CW	11 x 10.5 x 1.7 (MPM only) 11 x 10.5 x 4 (w/fan assembly) 11 x 10.5 x 6 (w/ fan assy)

**We offer customized solutions to meet your specific frequency and power level requirements.
Contact us to discuss how we can tailor our technology to fit your needs.**

Stellant Systems is a premier manufacturer of critical spectrum and RF power amplification products to the space, defense, medical, scientific and industrial markets for both domestic and international customers.

HISTORY OF OUR INNOVATION

Stellant Systems carries forward a legacy that began with Charles Litton's Engineering Laboratories (1932, Redwood City, CA) and Howard Hughes' Electron Tube Laboratory (1959, Culver City, CA). Through decades of acquisitions and consolidations—including Sylvania, Loral, GM Hughes, Sperry, GE, RCA, Boeing, Raytheon, Northrop Grumman, L3Harris, and Comtech—this heritage remains the foundation of our innovation today.

OUR BUSINESS

- Approximately 1100 employees
- 4 manufacturing facilities
- Qualified to ISO 9001 and AS9100
- DCMA Certified

FACILITIES



Torrance, CA (Headquarters)

3100 Lomita Blvd.
Torrance, CA 90505
T: 310-517-6000
ISO 9001:2015 & AS9100:2016



Williamsport, PA

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Power Systems Technology (PST)

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