



Defense

RFHC PRODUCT CATALOGUE

RFHC

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Military Radars

Market Value

VALUE ENGINEERING

RFHIC is a global leader in designing and manufacturing GaN on SiC components for a variety of applications such as Radar, RF energy, and Telecom. In radar technology RFHIC is at the very forefront in providing customers with outstanding solutions for the radar industries' most challenging problems. Solutions for a variety of applications including: weather radar, military radar, airport surveillance radar and more. Working with RFHIC means you will benefit from our excellence in engineering innovation, efficiency and most importantly our excellence in service. Our ground-breaking innovations in GaN technology will give your products the capabilities to cut through the barrier of the unimaginable into the imaginable. Come step into the future and see how we can exceed your vision.



\$40.6B USD

by 2030 with 4.4% CAGR

Source: Yole and Company Estimates

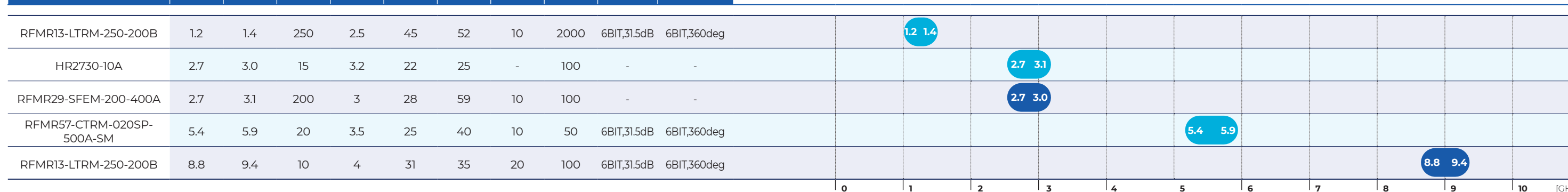
GaN TR Modules

RFHIC's wide portfolio of connectorized power amplifiers covers line of Gallium Nitride (GaN) Transmit and Receive(T/R) modules with a frequency range starting from 1.2 GHz. Our GaN T/R modules utilize our state-of-the-art GaN technology allowing them to provide excellent output power and efficiency for radar applications. Compactly designed to occupy less space, making them the perfect solution for all AESA radar applications. Customizable solutions are available upon request.



* All product datasheets can be downloaded from our website. Click here www.rfhic.com

Part Number	Freq. [GHz]		TX Pout	RX NF	RX Gain	TX Gain	Duty	Pulse Width	Attenuator	Phase Shifter
	Min	Max	[W]	[dB]	[dB]	[dB]	[%]	[us]		



GaN SMD Modules

RFHIC offers cutting edge GaN SMD modules fabricated for radar applications. Our cutting-edge GaN SMD Modules offer excellent output power, high gain and high efficiency. Customizable solutions are available upon request.



* All product datasheets can be downloaded from our website: Click here: www.rfhic.com

Part Number	Freq. [MHz]		Gain	Pout	Eff.	Pulse Droop	Duty	Pulse Width	Vds	Package
	Min	Max	[dB]	[W]	[%]	[dB]	[%]	[us]	[V]	

Part Number	Min Freq [MHz]	Max Freq [MHz]	Gain [dB]	Pout [W]	Eff. [%]	Pulse Droop [dB]	Duty [%]	Pulse Width [us]	Vds [V]	Package	Frequency [MHz]
RNP04006-A1	400	450	33	4	70	0.5	10	100	24	HY-6	400-450 RNP04006-A1
HR2731-50A	2700	3100	24	50	50	0.5	10	500	50	NP-1EL	2700-3100 HR2731-50A
HR5459-25B	5400	5900	18	25	45	0.5	10	50	50	NP-36B	5400-5900 HR5459-25B
HR5459-25C	5400	5900	15	25	40	0.5	10	50	28	NP-36B	5400-5900 HR5459-25C
HR9395-30A	9300	9500	10	30	40	0.5	10	100	50	NP-18	9300-9500 HR9395-30A
RRC94030-10	9300	9500	15	20	35	0.5	10	100	48	CP-8A	9300-9500 RRC94030-10
HR9395-08A	9300	9500	11	6	45	0.5	10	100	50	NP-18	9300-9500 HR9395-08A

Up Down Converter

RFHIC's frequency converters are designed to offer multi-functions features in one single part. Our multi-functional converters are designed to meet the demanding performance, functionality and cost goals of current and next-generation military communication (MILCOM) applications.

Converter Type	Part Number	Input Freq [MHz]		Output Freq [MHz]		Ch BW [MHz]	Gain Control [dB]	Gain Step [dB]	OP1dB [dBm]	NF[dB]@ Max Gain	Spurious [dBc]	Power Consumption[W]	Dimension[mm]	Display & Control
		Min	Max	Min	Max									
Up Con Up Converter (IF[70/140]→RF)	RSF5767-30COS	Center Selection		Min	Max	36/72	0 ~ 30	0.25dB	15	12	<-55	50Watt @90~264VAC 1Phase 50/ 60Hz	483x44x450	LCD, LED, Keypad RS232, RS422, LVDS, Ethernet
		70/140		5700	6700									
Down Converter (RF→IF[70/140])	RSF3442-40COS	Min	Max	Center Selection		36/72	10 ~ 40	0.25dB	15	10	<-55	50Watt @90~264VAC 1Phase 50/ 60Hz	483x44x450	LCD, LED, Keypad RS232, RS422, LVDS, Ethernet
		3400	4200	70/140										

Module Amplifiers & Transmitters

RFHIC's broad range of connectorized power amplifiers provides users with high breakdown voltage and high efficiency for a variety of radar applications. We offer a wide portfolio of frequency ranges, power levels, for both pulsed and continuous operations. Customizable solutions are available upon request.



* All product datasheets can be downloaded from our website. Click here: www.rfhic.com

Part Number	Freq [MHz]		Gain	Pout	Eff.	Pulse Droop	Duty	Pulse Width	Vds	Dimensions
	Min	Max	[dB]	[W]	[%]	[dB]	[%]	[us]	[V]	

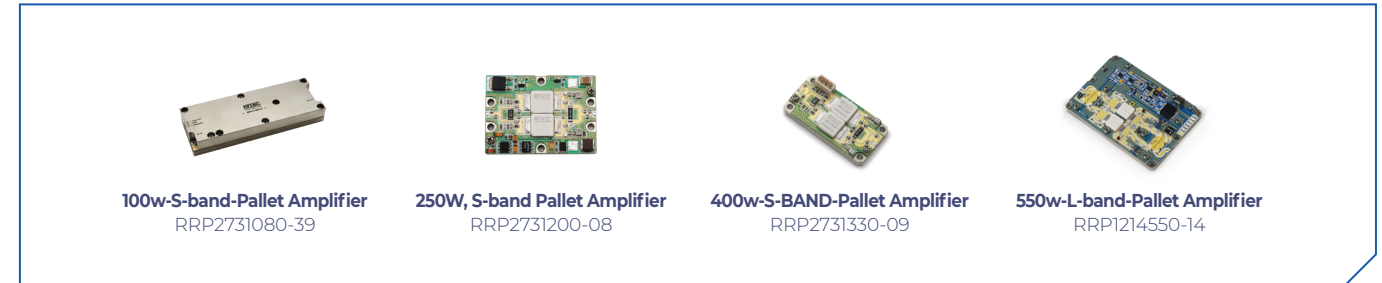
Part Number	Min Freq [MHz]	Max Freq [MHz]	Gain [dB]	Pout [W]	Eff. [%]	Pulse Droop [dB]	Duty [%]	Pulse Width [us]	Vds [V]	Dimensions	Frequency [MHz]
RRP03250-10	135	460	31	300	40	0.5	20	500	50	114.3x25.4x28	135-460
RRP131K0-10	1200	1400	54	1200	50	0.5	20	500	12/50	250x150x28	1200-1400
RRT272915K0-700	2700	2900	70	15000	20	1	10	100	380VAC 3Phase 60Hz	787.4x1854.2x1016	2700-2900
RRP27312K5-30	2700	3100	30	2800	40	0.5	10	100	6/50	175x234x25	2700-3100
RRP27371K5-30	2700	3700	30	1500	37	0.5	10	100	6/50	180x125x23	2700-3700
RRP291K0-10	2700	3100	60.5	1100	35	0.5	20	500	12/50	220x145x27	2700-3100
RRP52571K3-42	5200	5700	43	1300	35	0.5	10	100	6/50	190x99x23	5200-5700
RRP52591K2-42	5200	5900	42	1200	35	0.5	10	100	6/50	190x99x23	5200-5900
RRP52571K0-41	5250	5750	41	1200	30	0.5	10	100	6/50	190x99x23	5250-5750
RRT545930K-400	5400	5900	40	30000	15	1	10	100	50	810x1165x1115	5400-5900
RRT545915K-370	5400	5900	37	15000	15	1	10	100	50	810x1165x1115	5400-5900
RRT54594K0-66	5400	5900	66	4000	26	1	10	100	50	474x420x251	5400-5900
RRP52591K3-42	5400	5900	43	1300	35	0.5	10	100	6/50	190x99x23	5400-5900
RRP54591K2-42	5400	5900	42	1200	35	0.5	10	100	6/50	190x99x23	5400-5900
RRP56571K0-42	5600	5700	42	1200	35	0.5	10	200	6/50	190x99x23	5600-5700
RRT0901005K0-57	9000	10000	57	5000	15	1	10	100	50	484x540x266	9000-10000
RRP9095150-18	9000	9500	18	150	35	0.5	10	100	50	88x45x14	9000-9500
RRP090100120-15	9000	10000	15	120	30	0.5	10	100	50	88x45x14	9000-10000
RRM9397800-59	9300	9700	59	800	20	0.5	10	100	5.6/50	232.8x190x43	9300-9700
RRP9397400-56A	9300	9700	56	400	25	0.5	10	100	5.6/50	220x120x23	9300-9700
RRT9397400-560	9300	9700	56	400	25	1	10	100	115VAC 1Phase 60Hz	483x88x500	9300-9700
RRM9395200-56A	9300	9500	56	200	20	0.5	10	100	5.6/50	140x140x25	9300-9500
RRM9397200-56A	9300	9700	56	200	20	0.5	10	100	50	232.8x190x43	9300-9700
RRP162168100-08A	16200	16800	8	100	20	1	6	7.5	50	35x70x11.7	16200-16800
RRP162168020-17A	16200	16800	17	20	25	1	6	7.5	50	35x50x11.7	16200-16800

Frequency

0 2000 4000 6000 10000 17000 [MHz]

Pallet Amps

RFHIC's state-of-the-art GaN on SiC pallet amplifiers are the industry's leading components for numerous radar applications. Our world-class GaN on SiC pallet amplifiers deliver high efficiency and excellent thermal stability across a broad range of power. Customizable solutions are available upon request.

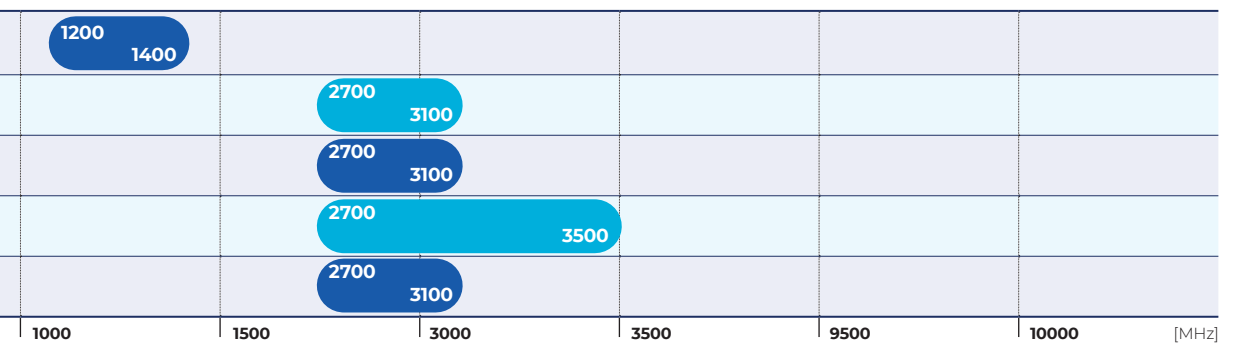


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Part Number	Freq. [MHz]		Gain	Pout	Eff.	Pulse Droop	Duty	Pulse Width	Vds	Dimension
	Min	Max	[dB]	[W]	[%]	[dB]	[%]	[us]	[V]	[mm]

RRP1214550-14	1200	1400	14	550	65	0.5	15	500	5/50	86x60x12
RRP2731330-09	2700	3100	9	400	55	0.5	20	500	50	50x25x12
RRP2731200-08	2700	3100	8	250	55	0.5	20	500	38	50.8x35.8x11.1
RRP2735160-35	2700	3500	35	180	40	0.5	20	2000	50	76X25X14
RRP2731080-39	2700	3100	39	100	42	0.5	20	500	5/50	100x36x14

Frequency



Low Noise Amps

RFHIC's low noise amplifiers for radar applications cover a frequency range of 1200 to 3800 MHz and a gain range from 11.5 to 21. All our LNAs are built using our GaAs pHEMT die, which is attached to a ceramic film substrate. Customizable solutions are available upon request.

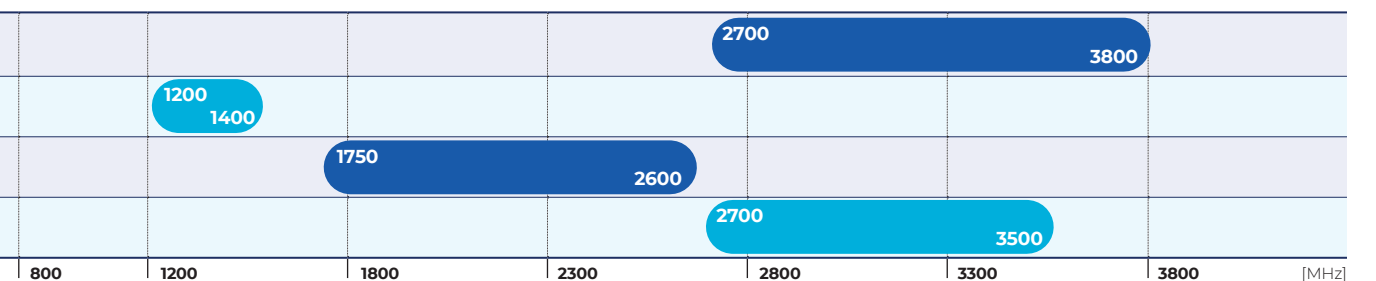


* All product datasheets can be downloaded from our website. Click Here: www.rfhic.com

Part Number	Freq. [MHz]		Gain	NF	P1dB	OIP3	Vds	Idd	Maximum Input Power	Package
	Min	Max	[dB]	[dB]	[dBm]	[dBm]	[V]	[mA]	[dBm]	

LCL3322-L	2700	3800	21	1.4	27	39	5	190~250	18	CP-16B
CL1302D-L	1200	1400	18	0.7	20	33	5	100	30	CP-16A
CL2102D-L	1750	2600	14.5	0.7	20	33	5	100	30	CP-16A
CL3102D-L	2700	3500	11.5	1.1	20	33	5	100	30	CP-16A

Frequency



Narrowband Amps

From military communications to electronic warfare, today's defense systems require the highest level of reliability, performance, and cost-effectiveness. At RFHIC we strive to deliver our users with the most exceptional quality of GaN-based products for all electronic warfare requirements.



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Part Number	Freq. [MHz]		Vds	Output Power	Power Gain	Efficiency	Dimension
	Min	Max	[V]	[W]	[dB]	[%]	[mm]

Part Number	Min Freq. [MHz]	Max Freq. [MHz]	Vds [V]	Output Power [W]	Power Gain [dB]	Efficiency [%]	Dimension [mm]	Frequency [MHz]
RNP09550-20	910	920	50	550	60	66	240x98x26	910-920
RIM092K0-20	900	930	50	2000	58	63	400x232.2x48	900-930
RNP091K5-20	900	930	50	1500	50	63	400x219x45	900-930
RNP091K1-20	900	930	50	1100	50	63	280x170x51	900-930
RIK0915K-40T*	900	930	50	15000	-	56	600x1630x750	900-930
RNP21040-50	2100	2700	28	56	33	50	70 x 50.8 x 17.1	
RIM251K6-20	2400	2500	50	1600	60	53	332x188x44	2400-2500
RNP24800-20	2400	2500	50	800	44.6	55	285x98x35.2	2400-2500
RNP24550-20	2400	2500	50	550	43	55	240x98x26	2400-2500
RNP24300-20	2400	2500	50	300	55	56	180x80x35	2400-2500
RNP24200-20	2400	2500	50	200	53	57	160x65x32	2400-2500
RNP24150-20	2400	2500	50	150	52	60	160x65x32	2400-2500
RNP24100-20	2400	2500	50	100	50	60	160x65x32	2400-2500
RIU256K0-40T*	2400	2500	50	6000	-	52	507x392x192(Head) 482x443x133(PSU)	2400-2500
RNP58200-C2	5770	5830	40	200	30	33	208x66x32	5770-5830

Wideband Amps

In the air, on land, and at sea. Our GaN on SiC wideband amplifiers offer excellent harmonics and exceptional wideband performance for EW defense applications. See and experience how we can meet today's most challenging defense problems with both our standard and custom solutions.



* All product datasheets can be downloaded from our website. Click Here: www.rfhic.com

Part Number	Freq. [MHz]		P3dB (peak)	Gain	OIP3	Vds	Idd	Dimension	Package
	Min	Max	[dBm]	[dB]	[dBm]	[V]	[A]	[mm]	

Part Number	Min Freq [MHz]	Max Freq [MHz]	P3dB (peak) [dBm]	Gain [dB]	OIP3 [dBm]	Vds [V]	Idd [A]	Dimension [mm]	Package	Frequency Range [MHz]
RWP03040-50	20	500	46	39	-	28	4	70x50.8x17.1	DP-75	20 - 500
RWP03160-10	20	500	52	43	54	28	11	120x65x16.7	-	20 - 500
RWS02520-10	20	512	43	41	52	28	2.1	63x38x14.4	-	20 - 512
RWS02540-10	20	512	46	44	53	28	3.5	63x38x14.4	-	20 - 512
RWP03060-10	20	512	(49)	38	-	32	6	72x50.8x16.8	-	20 - 512
RWP03040-10	20	520	46	42	54	28	3.8	70x50.8x17.1	DP-75	20 - 520
RWM03060-10	20	520	49	55	-	28	7	162.6x86.4x27	-	20 - 520
RWM03125-10	20	520	51	55	-	28	9	162.6x86.4x27	-	20 - 520
RWP05020-10	20	1000	43	40	50	28	2.3	70x50.8x17.1	DP-75	20 - 1000
RWP05040-10	20	1000	46	38	48	28	3.5	70x50.8x17.1	DP-75	20 - 1000
RFW2500H10-28	20	2500	36	17	43	28	0.7	38x50.8x12.5	DP-34	20 - 2500
RWM03125-20	50	520	51	55	-	28	9	162.6x86.4x27	-	50 - 520
RWP06040-10	450	880	45	40	51	28	3	70x50.8x17.1	DP-75	450 - 880
RWP06040-60	500	1000	46	42	48	28	5	70x50.8x17.1	DP-75	500 - 1000
RWP15040-10	500	2500	(47)	38	-	32	5	72x50.8x16.8	-	500 - 2500
RWP17050-10	700	2700	(47)	37	-	32	4.5	72x50.8x16.8	-	700 - 2700
RWP15080-10	700	2700	(50)	53	-	32	10	134x105x30	-	700 - 2700
RWP15020-50	1000	2000	43	29	50	28	3.6	70x50.8x17.1	DP-75	1000 - 2000
RWP20050-10	1000	3000	(47)	38	-	32	5	72x50.8x16.8	-	1000 - 3000
RWP25020-50	2000	3000	44	25	-	28	2.8	70x50.8x17.1	DP-75	2000 - 3000
RUM43020-10	2000	6000	(43)	35	-	28	4	170x64x21.5	-	2000 - 6000
RUM43010-10	2500	6000	(40)	29	-	28	2.2	130x64x21.5	-	2500 - 6000
PWP2060050-48	2000	6000	48	48	-	28	9.5	175x90x23	-	2000 - 6000
PWP2060080-50	2000	6000	100	50	-	28	11	175x90x23	-	2000 - 6000

Frequency

0 1000 2000 3000 6000 [MHz]

Military Communications

In today's defense systems, military industries require the highest level of reliability, performance, and cost-effectiveness. At RFHIC we strive to deliver users with the most cutting-edge quality of GaN-based products for exceptional military communication applications.



GaN SMD Modules

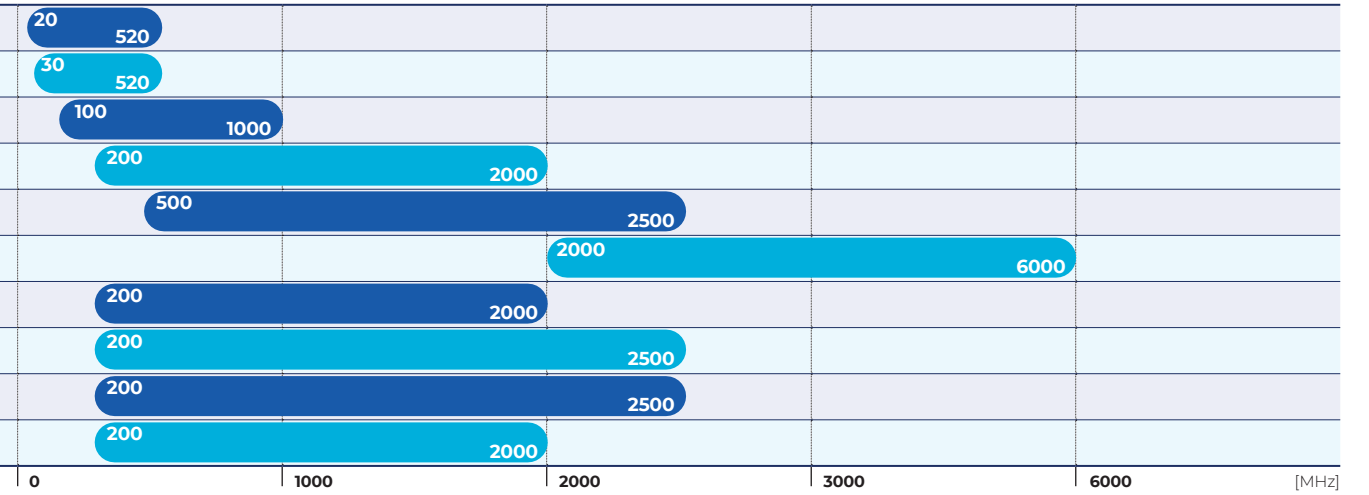
RFHIC's portfolio of GaN SMD modules support the demanding requirements of today's military communication systems. Our GaN SMD modules utilize our world-class GaN on SiC HEMT technology, providing users with a smaller size, weight, higher efficiency, gain and overall lower costs. At RFHIC we offer users the flexibility to customize their systems to fit their unique requirements.



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Part Number	Freq. [MHz]		Output Power	Eff.@P3dB	Power Gain	Vdd	Idd	Dimension
	Min	Max	[W]	[%]	[dB]	[V]	[mA]	[mm]
HM0005-10A	20	520	10	45	30	28	900	NP-1E
TG520-10	30	520	10	60	16	28	600	NP-18
TG1000-10	100	1000	10	50	15	28	700	NP-18
TG2000-10	200	2000	10	50	12	28	600	NP-18
HM0525-10A	500	2500	10	30	20	28	1300	NP-1E
HM2060-10A	2000	6000	10(Psat)	25	16	32	1400	NP-1EL
HM0220-05A	200	2000	5	40	35	24	525	NP-1A
HM0225-05A	200	2500	5	35	35	24	525	NP-1A
HM0225-05B	200	2500	5	31	34	24	670	NP-1A
HM0220-03A	200	2000	3	39	34	18	450	NP-1A

Frequency



Low Noise Amps

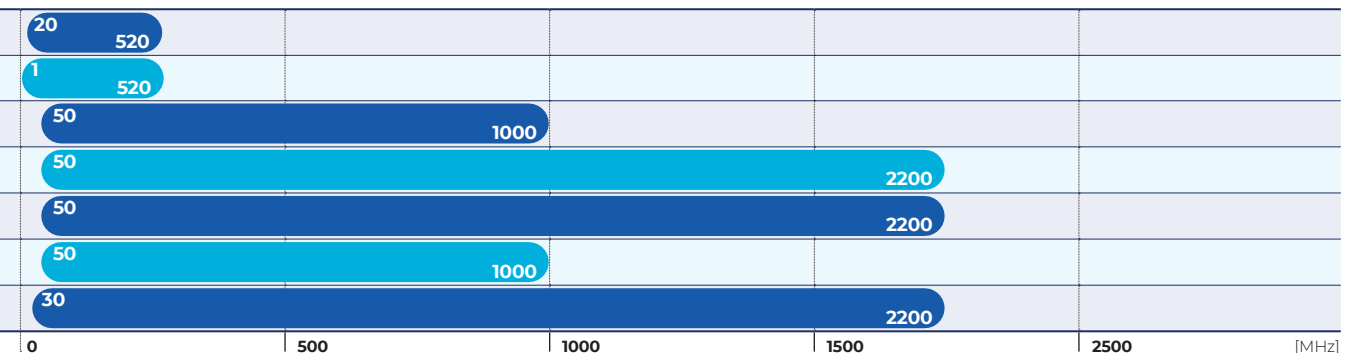
At RFHIC we offer hybrid type, fully matched and low noise amplifiers operating up to 4 GHz. Our hybrid type, low noise amplifiers offer solutions to meet today's military communication systems. Customizable solutions are available upon request.



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Part Number	Freq. [GHz]		Gain	Flatness	NF	P1dB	OIP3	Vdd	Idd	Package
	Min	Max	[dB]	[dB]	[dB]	[dBm]	[dBm]	[V]	[mA]	
WLP0640	20	520	19.5	0.8	2.5~2.9	31	43	12	360	CP-6C
WL0510	1	520	23	1.2	1.4~2.0	22	33	5	100	CP-16
WL1015-L	50	1000	16	2	1.7	21	35	5	160	CP-16A
WL2215-L	50	2200	15	4	1.7	21	35	5	160	CP-16A
WL2208-L	50	2200	15	4	1.5	20	31	5	100	CP-16A
WL1008-L	50	1000	16	2	1.5	19	31	5	100	CP-16A
WL2205-L	30	2200	15.5	1.2	1.4~1.7	15	26	5	50	CP-16A

Frequency



* If you have any questions about any of our products click on the link below to send us an inquiry.

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Designed by [ RFHIC CORPORATION 02 2264 8355]

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