RF

POWER

DEVICES

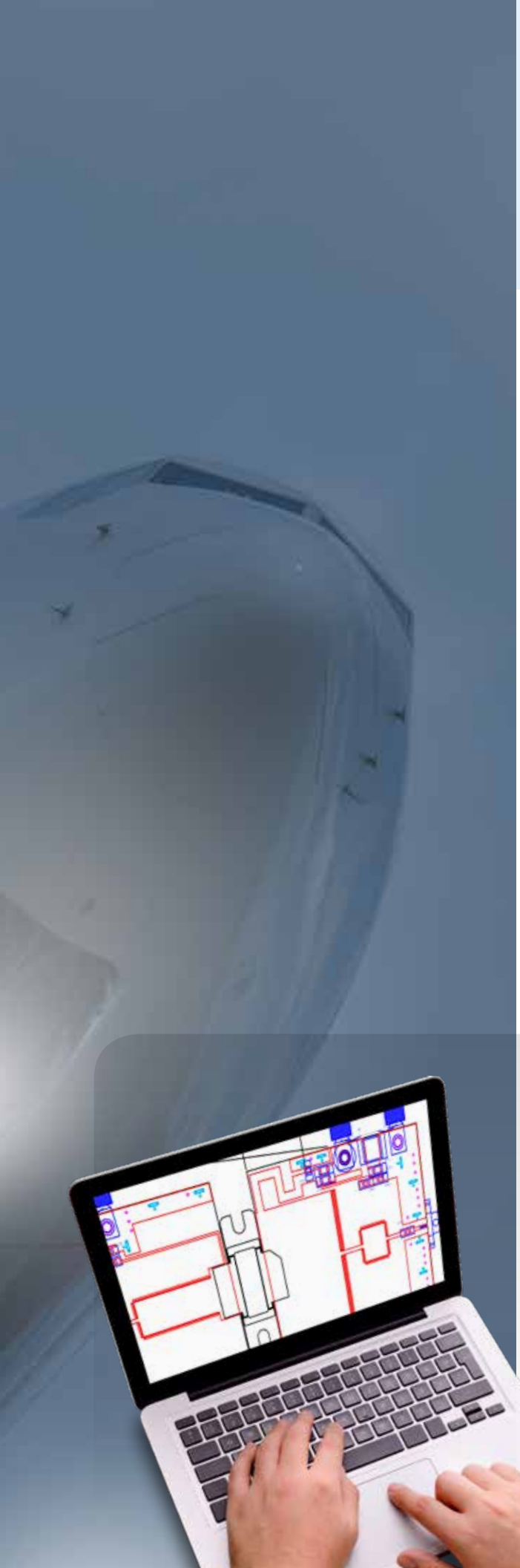
PRODUCT SELECTION GUIDE

JUNE 2019

INTEGRA

IMS Booth #1207 integratech.com

OFFERING UNIQUE EXPERTISE IN OPTIMIZING STANDARD AND CUSTOM RF POWER SOLUTIONS FOR RADAR, INTEGRA IS POWERING CRITICAL AVIONIC, DEFENSE AND WEATHER SYSTEMS ACROSS THE GLOBE



We understand what's at stake at the end of a radar signal. So, if you're striving for best-in-class output power with optimized thermal and electrical efficiency, we're ready to meet the challenge with you.

We offer a full selection of the most advanced high-power **GaN/SiC RF power transistors**, to **50-Ohm RF power transistors**, and **RF power modules** for **UHF through X-band** applications. We also continue to offer **Si-Bipolar**, **LDMOS** and **VDMOS** devices that support new and legacy programs.

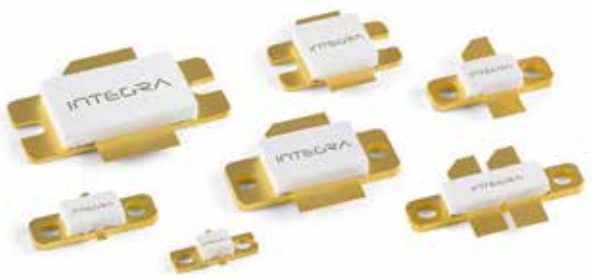
Once you've reviewed our suite of standard devices, visit **IntegraTech.com** to download datasheets, submit application engineering questions, and request pricing.

The Power of Semi-Custom

Delivering a faster and more cost-effective experience than a full custom build, Integra uses the power of semi-custom design to exceed your most demanding performance requirements. As Integra innovates breakthrough products, we add designs to our vast RF power cell library—a collection that has been growing since our inception over 20 years ago. We then leverage this library to rapidly customize, design and prototype solutions without new chip development.

Visit **IntegraTech.com** to get started.

RF Power Transistors for New and Legacy Designs



In addition to the latest in GaN/SiC solutions, our lineup of pre-matched devices includes Si-LDMOS and Si-VDMOS transistors as well as hard-to-find Si-bipolar transistors for your legacy systems. Our designs have been optimized for various radar applications where size, weight, frequency, and power performance variables need to be critically balanced.

- Solutions up to 6 GHz
- Output power up to 1200 W
- Efficiencies up to 85%
- Thermally-efficient metallized packages

RF Power Transistors for New Designs (GaN/SiC)

Part Number	Frequency Band (GHz)	Output Power (W)	Pulse width & Duty factor	Gain (typ.) (dB)	Efficiency (typ.) (%)	Voltage (V)	Matching	Package	
IGN0160UM12	0.10 - 6.00	12	CW	17	56	50	None	PL21A1	SUB-1 GHz
IGN0110UM100	0.10 - 1.00	100	CW	13	55	28	None	PL22D1	
IGN0450M160	0.42 - 0.45	160	100µs, 10%	22	77	50	Input	PL44C1	
IGN0450M250	0.42 - 0.45	250	100µs, 10%	24	75	50	Input	PL44C1	
IGN0450L600	0.42 - 0.45	600	16ms, 25%	20	70	50	Input	PL84A1	
IGN0450M850	0.40 - 0.45	850	300µs, 10%	20	75	50	Input	PL84A1	
IGN0450L1250	0.43 - 0.45	1250	16ms, 25%	18	75	50	Input	PL124A1	
IGN0450M1500	0.43 - 0.45	1500	250µs, 1%	20	80	50	Input	PL124A1	
IGN0912L45	0.96 - 1.215	45	444x (7µs On, 6µs Off), 22.7%	21	57	50	Input	PL32A2	L-BAND
IGN0912L125A	0.96 - 1.215	125	444x (7µs On, 6µs Off), 22.7%	18	55	50	Input & Output	PL44C1	
IGN0912L250A	0.96 - 1.215	250	444x (7µs On, 6µs Off), 22.7%	18	63	50	Input & Output	PL44C1	
IGN0912L250M	0.96 - 1.215	250	444x (7µs On, 6µs Off), 22.7%	18	60	50	Input	PL44C1	
IGN0912L500	0.96 - 1.215	500	444x (7µs On, 6µs Off), 22.7%	15	65	50	Input & Output	PL95A1	
IGN0912LM500	0.96 - 1.215	500	48x (32µs On, 18µs Off), 6.4%	18	63	50	Input	PL44C1	
IGN0912CW10	0.96 - 1.215	10	CW	18	40	28	Input	PL32A2	
IGN0912CW150	0.96 - 1.215	150	CW	12	60	28	Input & Output	PL95A1	
IGN0912CW300	0.96 - 1.215	300	CW	14	70	36	Input & Output	PL95A1	
IGN1012S30	1.025 - 1.15	30	32µs, 2%	19	55	50	Input	PL32A2	
IGN1012S40	1.025 - 1.15	40	32µs, 2%	22	65	50	Input	PL32A2	
IGN1012L40	1.025 - 1.15	40	48x (32µs On, 18µs Off), 6.4%	21	60	50	Input	PL32A2	
IGN1012S1000	1.025 - 1.15	1000	32µs, 2%	16	50	50	Input	PL84A1	
IGN1030M40	1.03	40	300µs, 10%	22	65	50	Input	PL32A2	
IGN1030M800	1.03	800	128µs, 2%	17	60	50	Input	PL84A1	
IGN1030L800	1.03	800	48x (32µs On, 18µs Off), 6.4%	17	65	50	Input	PL84A1	
IGN1030L1000	1.03	1000	48x (32µs On, 18µs Off), 6.4%	17	65	50	Input	PL84A1	
IGN1011M15	1.03 - 1.09	15	128µs, 2%	20	55	50	Input	PL32A2	
IGN1011M400	1.03 - 1.09	400	128µs, 2%	16	65	50	Input	PL64A1	
IGN1011M600	1.03 - 1.09	600	128µs, 2%	16	65	50	Input	PL64A1	
IGN1011M800	1.03 - 1.09	800	128µs, 2%	16	60	50	Input	PL84A1	
IGN1011L20-PB	1.03 - 1.09	20	48x (32µs On, 18µs Off), 6.4%	20	55	50	Input	PL32A2	
IGN1011L20-SP	1.03 - 1.09	20	128µs, 2%	20	55	50	Input	PL32A2	
IGN1011L60	1.03 - 1.09	60	48x (32µs On, 18µs Off), 6.4%	19	65	50	Input	PL32A2	
IGN1011L70	1.03 - 1.09	70	48x (32µs On, 18µs Off), 6.4%	22	65	50	Input	PL32A2	
IGN1011L120	1.03 - 1.09	120	48x (32µs On, 18µs Off), 6.4%	20	60	50	Input	PL44C1	
IGN1011L1000R2	1.03 - 1.09	1000	48x (32µs On, 18µs Off), 6.4%	17	85	50	Input	PL84A1	
IGN1011L1200	1.03 - 1.09	1200	48x (32µs On, 18µs Off), 6.4%	17	75	50	Input	PL84A1	
IGN1090M800	1.09	800	128µs, 2%	17	62	50	Input	PL84A1	
IGN1214M60	1.20 - 1.40	60	300µs, 10%	19	60	50	Input & Output	PL44A1	

IG = GaN/SiC

RF Power Transistors for New Designs (GaN/SiC) *Continued*

PRODUCTS IN DEVELOPMENT

Part Number	Frequency Band (GHz)	Output Power (W)	Pulse width & Duty factor	Gain (typ.) (dB)	Efficiency (typ.) (%)	Voltage (V)	Matching	Package	
IGN1214M120	1.20 - 1.40	120	300µs, 10%	19	60	50	Input & Output	PL44C1	L-BAND
IGN1214M250	1.20 - 1.40	250	300µs, 10%	16	60	50	Input & Output	PL44C1	
IGN1214M380C	1.20 - 1.40	380	150µs, 10%	20	54	50	Input	PL44C1	
IGN1214M500	1.20 - 1.40	500	300µs, 10%	14	60	50	Input & Output	PL95A1	
IGN1214M500R2	1.20 - 1.40	500	100µs, 10%	17	70	50	Input	PL44C1	
IGN1214M600	1.20 - 1.40	600	150µs, 10%	20	71	50	Input	PL64A1	
IGN1214M650A	1.20 - 1.40	650	300µs, 10%	13	72	50	Input & Output	PL95A1	
IGN1214S1000B	1.20 - 1.40	1000	5µs, 1.5%	16	65	50	Input & Output	PL84A1	
IGN1214L15	1.20 - 1.40	15	5ms, 30%	16	55	50	Input & Output	PL32A2	
IGN1214L30	1.20 - 1.40	30	5ms, 30%	16	60	42	Input & Output	PL32A2	
IGN1214L125	1.20 - 1.40	125	2ms, 20%	18	55	50	Input & Output	PL44C1	
IGN1214L250R2	1.20 - 1.40	250	750µs, 18%	19	72	40	Input	PL44C1	
IGN1214L380	1.20 - 1.40	380	5ms, 30%	12	60	42	Input & Output	PL95A1	
IGN1214L500B	1.20 - 1.40	500	2ms, 20%	16	65	50	Input & Output	PL95A1	
IGN1214CW500(S)	1.20 - 1.40	500	CW	18	70	40	Input	PL84A1	
IGN1300CW300	1.30	300	CW	12	70	36	Input & Output	PL95A1	
IGN1315M650	1.30 - 1.45	650	300µs, 10%	18	60	60	Input	PL84A1	
IGN1416S800	1.45 - 1.55	800	8µs, 1%	10	50	50	Input & Output	PL54H1	
IGN1416S1200	1.45 - 1.55	1200	8µs, 1%	12	50	50	Input & Output	PL44C1	
IGN1319CW150(S)	1.30 - 1.85	150	CW	18	65	52	Input & Output	PL44C1	
IGN1319L200(S)	1.30 - 1.85	200	1ms, 50%	18	65	52	Input & Output	PL44C1	
IGN2024CW150(S)	2.00 - 2.40	150	CW	18	65	52	Input & Output	PL44C1	S-BAND
IGN2024L200(S)	2.00 - 2.40	200	1ms, 50%	18	65	52	Input & Output	PL44C1	
IGN2429M400	2.40 - 2.90	400	300µs, 10%	13	50	48	Input & Output	PL84A1	
IGN2729CW200(S)	2.70 - 2.90	200	CW	17	60	40	Input & Output	PL44C1	
IGN2729M250C	2.70 - 2.90	250	300µs, 10%	11	59	50	Input & Output	PL64A1	
IGN2729M400	2.70 - 2.90	400	300µs, 10%	11	58	50	Input & Output	PL64A1	
IGN2729M400R2	2.70 - 2.90	400	100µs, 10%	18	63	50	Input & Output	PL44C1	
IGN2729M500	2.70 - 2.90	500	300µs, 10%	12	60	50	Input & Output	PL84A1	
IGN2730M65	2.70 - 3.00	65	300µs, 20%	15	58	32	Input & Output	PL32A1	
IGN2731M5	2.70 - 3.10	5	300µs, 10%	15	48	40	Input	PL32A1	
IGN2731M80	2.70 - 3.10	80	100µs, 10%	14	50	40	Input & Output	PL32A1	
IGN2731M120	2.70 - 3.10	120	100µs, 20%	13	65	30	Input & Output	PL44C1	
IGN2731M130	2.70 - 3.10	130	100µs, 10%	15	55	40	Input & Output	PL32A1	
IGN2731M180	2.70 - 3.10	180	100µs, 10%	13	58	50	Input & Output	PL32A1	
IGN2731M200	2.70 - 3.10	200	300µs, 10%	14	54	44	Input & Output	PL64A1	
IGN2731L10	2.70 - 3.10	10	40ms, 50%	15	40	32	Input	PL32A2	
IGN2731L200	2.70 - 3.10	200	3ms, 30%	14	54	42	Input & Output	PL64A1	
IGN2732M10	2.70 - 3.20	10	100µs, 10%	16	48	40	Input & Output	PL32A2	
IGN2856S40	2.856	40	12µs, 3%	11	60	50	Input	PL32A2	
IGN2856S500	2.856	500	12µs, 3%	12	60	50	Input & Output	PL64A1	
IGN2932M75	2.90 - 3.20	75	100µs, 10%	13	55	45	Input & Output	PL32A1	
IGN2933M200	2.90 - 3.30	200	200µs, 10%	16	60	50	Input & Output	PL44C1	
IGN2998S500	2.998	500	8µs, 1%	12	55	50	Input & Output	PL64A1	
IGN3135M135	3.10 - 3.50	135	300µs, 10%	13	55	50	Input & Output	PL32A1	
IGN3135M250	3.10 - 3.50	250	300µs, 10%	13	50	50	Input & Output	PL44C1	
IGN3135L12	3.10 - 3.50	12	3ms, 30%	16	50	46	Input	PL32A2	
IGN3135L115	3.10 - 3.50	115	3ms, 30%	14	51	46	Input & Output	PL44C1	
IGN3842M130	3.80 - 4.20	130	100µs, 2%	14	57	50	Input & Output	PL32A1	C-BAND
IGN5259M80R2	5.20 - 5.90	80	300µs, 10%	13	48	50	Input & Output	PL32A1	

IG = GaN/SiC

RF Power Transistors for Legacy Designs (Si- Bipolar/LDMOS/VDMOS) *Continued*

Part Number	Frequency Band (GHz)	Output Power (W)	Pulse width & Duty factor	Gain (typ.) (dB)	Efficiency (typ.) (%)	Voltage (V)	Matching	Package	
IDM175CW300	0.001 - 0.20	300	CW	15	57	50	None	P44I5	SUB-1 GHZ
IDM500CW200	0.001 - 0.50	200	CW	10	63	28	None	P44I1	
IDM500CW300	0.001 - 0.50	300	CW	9	65	28	None	P44I1	
IDM30512CW50	0.03 - 0.512	50	CW	10	50	28	None	P44I1	
IDM30512CW100	0.03 - 0.512	100	CW	9	65	28	None	P44I1	
IDM165L650	0.125 - 0.167	650	1ms, 20%	9	62	34	None	P44I1	
IDM265L650	0.190 - 0.265	650	1ms, 20%	8	58	34	None	P44C5 x2	
IB450S300	0.45	300	30µs, 10%	11	63	40	Input	P44I1	
IB450S500	0.45	500	30µs, 10%	10	68	40	Input	P64A2	
IB0607S10	0.653 - 0.687	10	20µs, 2%	10	49	50	None	P32A5	
IB0607S100	0.653 - 0.687	100	20µs, 2%	13	62	50	Input	P32A5	
IB0607S1000	0.653 - 0.687	1000	20µs, 2%	9	55	50	Input	P64A6	
IB0810M12	0.87 - 0.99	12	300µs, 15%	8	53	36	None	P44C3	L-BAND
IB0810M50	0.87 - 0.99	50	300µs, 15%	8	52	36	Input	P44C3	
IB0810M100	0.87 - 0.99	100	300µs, 15%	10	69	36	Input	P44C3	
IB0810M210	0.87 - 0.99	210	300µs, 15%	8	59	36	Input	P44C3	
IB0912M70	0.96 - 1.215	70	10µs, 10%	11	64	50	Input & Output	P32C1	
IB0912M210	0.96 - 1.215	210	10µs, 10%	12	53	50	Input & Output	P44C7	
IB0912M350	0.96 - 1.215	350	10µs, 10%	11	57	50	Input & Output	P54A5	
IB0912M500	0.96 - 1.215	500	10µs, 10%	8	56	50	Input & Output	P64A2	
IB0912M600	0.96 - 1.215	600	10µs, 10%	9	53	50	Input & Output	P64A28	
IB0912L30	0.96 - 1.215	30	450µs, 15%	11	61	36	Input	P22A1	
IB0912L70	0.96 - 1.215	70	444x (7µs On, 6µs Off), 22.7%	12	58	44	Input & Output	P22A1	
IB0912L200	0.96 - 1.215	200	444x (7µs On, 6µs Off), 22.7%	10	58	44	Input & Output	P54A5	
ILD0912M15HV	0.96 - 1.215	15	10µs, 10%	14	44	50	None	PL32A1	
ILD0912M60	0.96 - 1.215	60	10µs, 10%	17	48	30	Input & Output	PL44B1	
ILD0912M150HV	0.96 - 1.215	150	10µs, 10%	13	55	50	Input & Output	PL84A1	
ILD0912M400HV	0.96 - 1.215	400	10µs, 10%	9	46	50	Input & Output	PL95A1	
ILD1012S500HV	1.025 - 1.15	500	10µs, 1%	16	49	50	Input & Output	PL84A1	
IB1012S10	1.025 - 1.15	10	10µs, 1%	11	43	50	Input & Output	P32C1	
IB1012S20	1.025 - 1.15	20	10µs, 1%	10	51	50	Input & Output	P64A8	
IB1012S50	1.025 - 1.15	50	10µs, 1%	11	49	50	Input	P32A5	
IB1012S150	1.025 - 1.15	150	10µs, 1%	10	30	50	Input & Output	P44C14	
IB1012S500	1.025 - 1.15	500	10µs, 1%	10	54	50	Input & Output	P54A5	
IB1012S800	1.025 - 1.15	800	10µs, 1%	10	50	50	Input & Output	P64A6	
IB1012S1100	1.025 - 1.15	1100	10µs, 1%	10	50	60	Input & Output	P64A6	
IB1011M10	1.03	10	128x (0.5µs On, 0.5µs Off), 1%	10	52	50	None	P32A5	
IB1011M20	1.03	20	128x (0.5µs On, 0.5µs Off), 1%	14	61	50	None	P32A5	
IB1011M70	1.03	70	128x (0.5µs On, 0.5µs Off), 1%	9	65	50	Input	P32A5	
IB1011M140	1.03	140	128x (0.5µs On, 0.5µs Off), 1%	12	56	50	Input	P32A5	
IB1011M190	1.03	190	128x (0.5µs On, 0.5µs Off), 1%	12	75	50	Input	P32A5	
IB1011M250	1.03	250	128x (0.5µs On, 0.5µs Off), 1%	8	62	50	Input	P32A5	
IB1011M350	1.03	350	128x (0.5µs On, 0.5µs Off), 1%	11	72	50	Input	P32A5	
IB1011M660	1.03	660	128x (0.5µs On, 0.5µs Off), 1%	11	57	50	Input	P64A2	
IB1011M800	1.03	800	128x (0.5µs On, 0.5µs Off), 1%	9	52	50	Input	P64A2	
IB1011M1000	1.03	1000	128x (0.5µs On, 0.5µs Off), 1%	9	58	50	Input	P64A6	
IB1011L15	1.03	15	48x (32µs On, 18µs Off), 6.4%	15	67	48	None	P32A5	
IB1011L40	1.03	40	48x (32µs On, 18µs Off), 6.4%	10	57	48	Input	P32A5	
IB1011L110	1.03	110	48x (32µs On, 18µs Off), 6.4%	11	65	48	Input	P32A5	
IB1011L220	1.03	220	48x (32µs On, 18µs Off), 6.4%	9	56	48	None	P32A5	
IB1011L470	1.03	470	48x (32µs On, 18µs Off), 6.4%	10	57	48	Input	P64A2	
IB1011S70	1.03	70	10µs, 1%	10	70	50	Input	P32A5	
IB1011S190	1.03	190	10µs, 1%	12	70	60	Input	P32A5	
IB1011S250	1.03	250	10µs, 1%	10	61	50	Input	P32A5	
IB1011S350	1.03	350	10µs, 1%	12	59	50	Input	P32A5	
IB1011S1000	1.03	1000	10µs, 1%	10	57	50	Input	P64A6	
IB1011S1500	1.03	1500	10µs, 1%	10	50	60	Input	P64A6	
ILD1011M1000HVE	1.03	1000	50µs, 2%	18	55	50	Input	PL124A1	
ILD1011L950HV	1.03	950	48x (32µs On, 18µs Off), 6.4%	16	55	50	Input	PL124A1	
ILD1011M160HV	1.03	160	50µs, 2%	17	53	50	Input	PL32A1	

IB = Si-Bipolar, IL = Si-LDMOS, ID=Si-VDMOS

RF Power Transistors for Legacy Designs (Si- Bipolar/LDMOS/VDMOS) *Continued*

Part Number	Frequency Band (GHz)	Output Power (W)	Pulse width & Duty factor	Gain (typ.) (dB)	Efficiency (typ.) (%)	Voltage (V)	Matching	Package	
ILD1011M280HV	1.03	280	50µs, 2%	16	51	50	Input	PL84A1	L-BAND
ILD1011M15HV	1.03 - 1.09	15	50µs, 2%	17	46	50	Output	PL32A1	
ILD1011M275HV	1.03 - 1.09	275	50µs, 2%	15	53	50	Input & Output	PL84A1	
ILD1011M550HV	1.03 - 1.09	550	50µs, 2%	17	49	50	Input & Output	PL84A1	
IB1011M1100	1.03 - 1.09	1100	32µs, 2%	9	44	60	Input & Output	P64A6	
ILD1011L20HV	1.03 - 1.09	20	48x (32µs On, 18µs Off), 6.4%	15	43	50	None	PL32A1	
ILD1011L110HV	1.03 - 1.09	110	48x (32µs On, 18µs Off), 6.4%	15	50	50	Input	PL32A1	
ILD1011L200HV	1.03 - 1.09	200	48x (32µs On, 18µs Off), 6.4%	17	55	50	Input	PL64A1	
IB1214M6	1.20 - 1.40	6	100µs, 10%	9	47	28	Input	P32C1	
IB1214M32	1.20 - 1.40	32	100µs, 10%	11	54	40	Input	P32A5	
IB1214M55	1.20 - 1.40	55	100µs, 10%	9	47	40	Input	P32A5	
IB1214M130	1.20 - 1.40	130	300µs, 10%	9	54	50	Input & Output	P32A5	
IB1214M150	1.20 - 1.40	150	100µs, 10%	8	50	40	Input & Output	P32A5	
IB1214M375	1.20 - 1.40	375	300µs, 10%	9	60	42	Input & Output	P64A28	
ILD1214M10	1.20 - 1.40	10	200µs, 10%	13	48	30	Output	PL32A1	
ILD1214M60	1.20 - 1.40	60	300µs, 10%	14	48	30	Input & Output	PL44B1	
ILD1214L250	1.20 - 1.40	250	1ms, 10%	13	60	30	Input & Output	PL124A1	
ILD1214EL40	1.20 - 1.40	40	16ms, 50%	14	42	30	Input	PL32A1	
ILD1214EL200	1.20 - 1.40	200	16ms, 50%	12	42	30	Input & Output	PL124A1	
IB1416S650	1.45 - 1.55	650	50x (0.5µs On, 1.5µs Off), 1%	8	46	50	Input & Output	P64A24	
IB2226MH15	2.25 - 2.55	15	200µs, 10%	10	41	36	Input & Output	P44A3	S-BAND
IB2226M80	2.25 - 2.55	80	200µs, 10%	8	48	36	Input & Output	P32A5	
IB2226MH110	2.25 - 2.55	110	200µs, 10%	9	42	36	Input & Output	P44C4	
IB2226M160	2.25 - 2.55	160	200µs, 10%	9	54	38	Input & Output	P32A5	
IB2226MH160	2.25 - 2.55	160	200µs, 10%	9	46	34	Input & Output	P44C4	
IB2729M5	2.70 - 2.90	5	100µs, 10%	8	42	32	Input & Output	P32C3	
IB2729M25	2.70 - 2.90	25	100µs, 10%	9	45	36	Input & Output	P32C1	
IB2729M90	2.70 - 2.90	90	100µs, 10%	10	51	36	Input & Output	P32A5	
IB2729M170	2.70 - 2.90	170	100µs, 10%	10	50	36	Input & Output	P32A5	
IB2731MH25	2.70 - 3.10	25	200µs, 10%	10	43	36	Input & Output	P44L1	
IB2731M110	2.70 - 3.10	110	200µs, 10%	9	50	36	Input & Output	P32A5	
IB2731MH110	2.70 - 3.10	110	200µs, 10%	9	45	36	Input & Output	P44C4	
ILD2731M30	2.70 - 3.10	30	100µs, 10%	13	46	28	Input & Output	PL32A1	
ILD2731M60	2.70 - 3.10	60	300µs, 10%	11	43	32	Input & Output	PL32A1	
ILD2731M140	2.70 - 3.10	140	300µs, 10%	13	45	32	Input & Output	PL64A1	
ILD2735M120	2.70 - 3.50	120	300µs, 10%	10	33	32	Input & Output	PL124A1	
IB2856S30	2.856	30	12µs, 3%	10	50	40	Input & Output	P32A5	
IB2856S65	2.856	65	12µs, 3%	11	53	40	Input & Output	P32A5	
IB2856S250	2.856	250	12µs, 3%	11	52	40	Input & Output	P32A5	
IB2931MH55	2.90 - 3.10	55	100µs, 10%	9	49	36	Input & Output	P44C3	
IB2931MH155	2.90 - 3.10	155	100µs, 10%	9	42	36	Input & Output	P44C4	
ILD2933M130	2.90 - 3.30	130	300µs, 10%	11	45	32	Input & Output	PL84A1	
IB2934M100	2.90 - 3.40	100	100µs, 10%	8	40	36	Input & Output	P32A5	
IB3000S60	3.00	60	12µs, 1%	12	52	40	Input & Output	P32A5	
IB3000S200	3.00	200	12µs, 1%	9	48	40	Input & Output	P32A5	
IB3134M15	3.10 - 3.40	15	300µs, 10%	8	45	36	Input & Output	P32C3	
IB3134M25	3.10 - 3.40	25	300µs, 10%	10	45	36	Input & Output	P32C1	
IB3134M70	3.10 - 3.40	70	300µs, 10%	8	50	36	Input & Output	P32A5	
IB3134M100	3.10 - 3.40	100	300µs, 10%	10	42	36	Input & Output	P32A5	
IB3135MH5	3.10 - 3.50	5	100µs, 10%	8	30	36	Input & Output	P44A3	
IB3135MH20	3.10 - 3.50	20	100µs, 10%	8	35	36	Input & Output	P44A3	
IB3135MH45	3.10 - 3.50	45	100µs, 10%	9	42	36	Input & Output	P44C3	
IB3135MH65	3.10 - 3.50	65	100µs, 10%	8	49	36	Input & Output	P44C4	
IB3135MH75	3.10 - 3.50	75	100µs, 10%	9	49	36	Input & Output	P44C4	
IB3135MH100	3.10 - 3.50	100	100µs, 10%	9	45	36	Input & Output	P44C4	
ILD3135M30	3.10 - 3.50	30	300µs, 10%	10	40	32	Input & Output	PL32A1	
ILD3135M120	3.10 - 3.50	120	300µs, 10%	10	41	32	Input & Output	PL84A1	
ILD3135M180	3.10 - 3.50	180	300µs, 10%	12	37	32	Input & Output	PL124A2	
ILD3135EL20	3.10 - 3.50	20	16ms, 50%	10	35	28	Input & Output	PL32A1	

IB = Si-Bipolar, IL = Si-LDMOS, ID=Si-VDMOS

50-Ohm RF Power Transistors

One level up from our pre-matched transistors, Integra offers a suite of space-saving and easy-to-implement 50-ohm (fully-matched) transistors. These ultra-efficient devices enable you to achieve SWaP-C requirements by getting more functional use out of the transistor spot in your block diagrams.

- Solutions up to 12 GHz
- Output power up to 135 W
- Efficiencies up to 55%
- Thermally-efficient metalized packages

50-Ohm RF Power Transistors (GaN/SiC, Si-LDMOS)

PRODUCTS IN DEVELOPMENT

Part Number	Frequency Band (GHz)	Output Power (W)	Pulse width & Duty factor	Gain (typ.) (dB)	Efficiency (typ.) (%)	Voltage (V)	Matching (Ohm)	Package	
IGT2731M130	2.70 - 3.10	130	300µs, 10%	15	50	50	50	PL44A1	S-BAND
IGT2731L120	2.70 - 3.10	120	40ms, 50%	13	50	32	50	PM67A1	
ILT2731M15	2.70 - 3.10	15	300µs, 10%	12	50	32	50	PL32A2	
ILT2731M30	2.70 - 3.10	30	300µs, 10%	12	50	32	50	PL32A2	
ILT2731M130	2.70 - 3.10	130	300µs, 10%	12	43	32	50	P64H2	
ILT3035M15	3.00 - 3.50	15	300µs, 10%	12	45	32	50	PL32A2	
ILT3035M30	3.00 - 3.50	30	300µs, 10%	12	45	32	50	PL32A2	
IGT3135M115	3.10 - 3.50	115	300µs, 10%	11	50	40	50	PL44A1	
IGT3135M135	3.10 - 3.50	135	300µs, 10%	14	55	46	50	PL44A1	
IGT5259CW25	5.20 - 5.90	25	CW	12	48	36	50	PL44C2	C-BAND
IGT5259CW50	5.20 - 5.90	50	CW	13	50	28	50	PL44C2	
IGT5259L50	5.20 - 5.90	50	1ms, 15%	14	43	50	50	PL44A1	
IGT5459M25	5.40 - 5.90	25	50µs, 10%	15	43	45	50	PL44A1	
IGT8292M50	8.20 - 9.20	50	100µs, 10%	12	45	50	50	PFC77B1	X-BAND
IGT8994M50	8.90 - 9.40	50	200µs, 10%	12	43	50	50	PFC77B1	
IGT9010M50	9.00 - 10.00	50	100µs, 10%	12	43	50	50	PFC77B1	
IGT1112M90	10.80 - 11.80	90	150µs, 10%	11	43	50	50	PFC77B1	

IG = GaN/SiC, IL = Si-LDMOS

The choice is yours. We'll help you make it.

The best solid-state, high power amplifiers (HPAs), especially those used in critical defense, aerospace, and weather-radar applications, start with the right choice of discrete or integrated RF power transistors. Download our latest tech brief to learn how to zero-in on the best RF transistor technology for your HPA design.

IntegraTech.com/rf-transistor-technology-high-power-amplifier-designs

RF Power Modules

Integra's RF Power Modules are your best way to derive the full benefit of our high-power expertise. Built-in functions include RF matching, gate-pulsing and sequencing (GPS), output noise suppression, temperature compensation, and VSWR protection. Custom and semi-custom design requests are welcome.

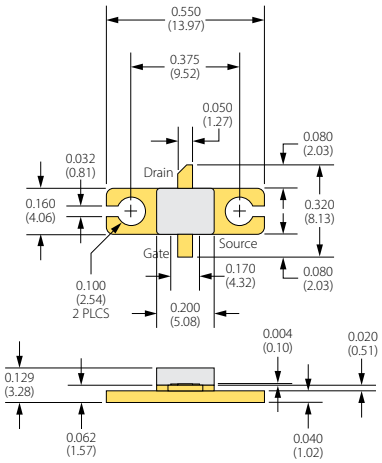
- Solutions up to 3.5 GHz
- Output power up to 2400 W
- Efficiencies up to 70%
- Various PCB substrate and packaging options

RF Power Modules (GaN/SiC, Si-Bipolar/LDMOS)

Part Number	Frequency Band (GHz)	Output Power (W)	Pulse width & Duty factor	Gain (typ.) (dB)	Efficiency (typ.) (%)	Voltage (V)	Size	
IGNP0450L600	0.42 - 0.45	600	16ms, 25%	20	70	50	3.3 x 2.5 x 0.21 inch	SUB-1 GHZ
IGNP0450M850	0.40 - 0.45	850	300µs, 10%	20	75	50	3.0 x 1.7 x 0.21 inch	
IGNMP0912CW150	0.96 - 1.215	150	CW	30	56	28	5.7 x 2.6 x 0.09 inch	L-BAND
IGNP0912L1KW	0.96 - 1.215	1000	2.5ms, 20%	14	55	50	5.6 x 3.1 x 0.27 inch	
IGNP1011M1600	1.03 - 1.09	1600	100µs, 2%	15	60	50	4.8 x 3.4 x 0.27 inch	
IGNP1011L2400	1.03 - 1.09	2400	48x (32µs On, 18µs Off), 6.4%	16	70	50	5.5 x 4.0 x 0.26 inch	
IBP1011L900	1.03 - 1.09	900	48x (32µs On, 18µs Off), 6.4%	10	50	48	3.9 x 2.0 x 0.21 inch	
IGNP1214M1KW-GPS	1.20 - 1.40	1000	300µs, 10%	13	60	50	7.4 x 3.6 x 0.27 inch	
IGNP1214M1200	1.20 - 1.40	1200	100µs, 10%	19	63	50	4.2 x 2.4 x 0.26 inch	
ILP1214EL200	1.20 - 1.40	200	16ms, 50%	22	45	30	5.9 x 3.0 x 0.21 inch	
IBP1214M700	1.20 - 1.40	700	200µs, 10%	9	51	42	3.5 x 1.8 x 0.21 inch	
IBP2226M300	2.25 - 2.55	300	200µs, 10%	8	56	34	3.5 x 2.4 x 0.21 inch	S-BAND
IGNP2729M800	2.70 - 2.90	800	300µs, 10%	11	58	50	2.8 x 2.7 x 0.22 inch	
IGNP2729M1KW-GPS	2.70 - 2.90	1000	300µs, 10%	11	51	50	5.3 x 3.0 x 0.27 inch	
IBP2729M300	2.70 - 2.90	300	100µs, 10%	8	38	36	2.0 x 1.4 x 0.15 inch	
IBP2729MH300	2.70 - 2.90	300	100µs, 10%	9	45	36	2.0 x 1.4 x 0.21 inch	
IGNP2730M380	2.70 - 3.00	380	150µs, 10%	11	58	50	2.0 x 0.9 x 0.14 inch	
IBP2731M200	2.70 - 3.10	200	200µs, 10%	9	45	36	2.0 x 1.4 x 0.15 inch	
IGNP2731M400-GPS	2.70 - 3.10	400	300µs, 10%	14	58	48	5.0 x 2.5 x 0.19 inch	
ILP2731M260	2.70 - 3.10	260	300µs, 10%	11	35	32	3.4 x 2.2 x 0.22 inch	
ILMP2731M260	2.70 - 3.10	260	300µs, 10%	23	35	32	4.7 x 2.2 x 0.22 inch	
IBP2731MH200	2.70 - 3.10	200	200µs, 10%	8	40	36	2.0 x 1.4 x 0.21 inch	
IBP2931MH270	2.90 - 3.10	270	100µs, 10%	8	40	36	2.0 x 1.4 x 0.15 inch	
IBP2931M300	2.90 - 3.10	300	40µs, 5%	9	40	42	2.0 x 1.4 x 0.15 inch	
IBP2934M190	2.90 - 3.40	190	100µs, 10%	8	45	36	2.0 x 1.4 x 0.15 inch	
IBP3134M25	3.10 - 3.40	25	300µs, 10%	11	45	36	1.0 x 0.8 x 0.15 inch	
IBP3134M220	3.10 - 3.40	220	200µs, 10%	13	41	36	2.0 x 1.0 x 0.21 inch	
IBP3135M150	3.10 - 3.50	150	100µs, 10%	9	48	36	1.8 x 0.8 x 0.13 inch	
IBP3135MH200	3.10 - 3.50	200	100µs, 10%	9	41	36	2.0 x 1.4 x 0.21 inch	
ILP3135M240	3.10 - 3.50	240	300µs, 10%	10	37	32	4.2 x 2.3 x 0.21 inch	
ILMP3135M240	3.10 - 3.50	240	300µs, 10%	21	32	32	5.4 x 2.3 x 0.22 inch	
IGNP3135M500	3.10 - 3.50	500	300µs, 10%	13	50	50	3.2 x 2.9 x 0.27 inch	

IG = GaN/SiC, IB = Si-Bipolar, IL = Si-LDMOS

PL21A1



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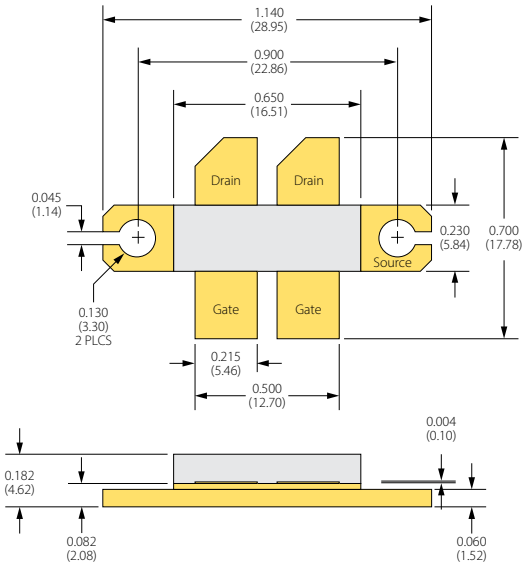

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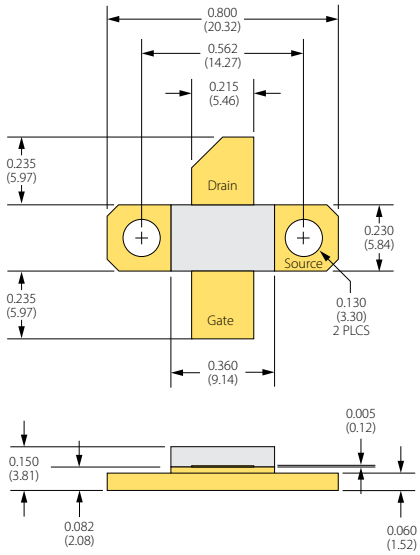

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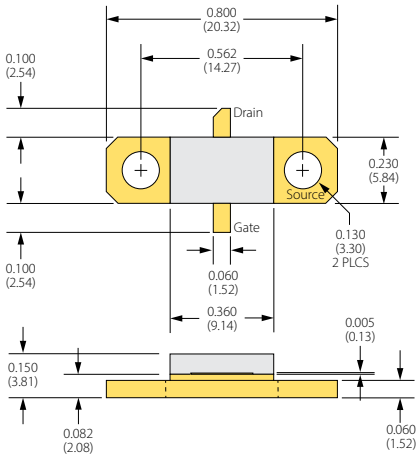

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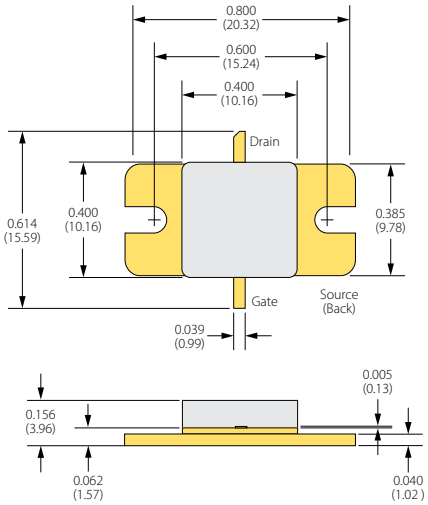

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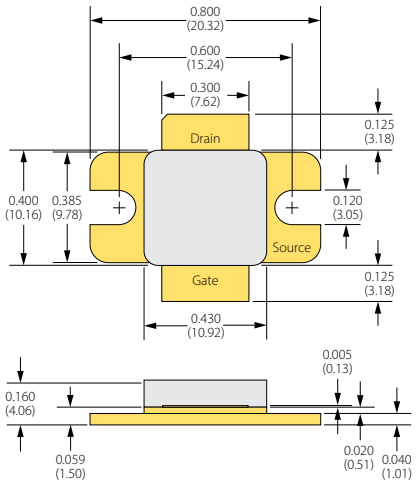
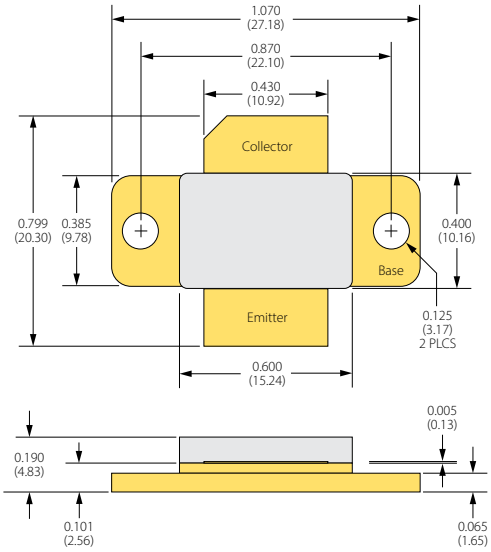


Inch (mm)

Package drawings for legacy designs are available at IntegraTech.com

PL64A1



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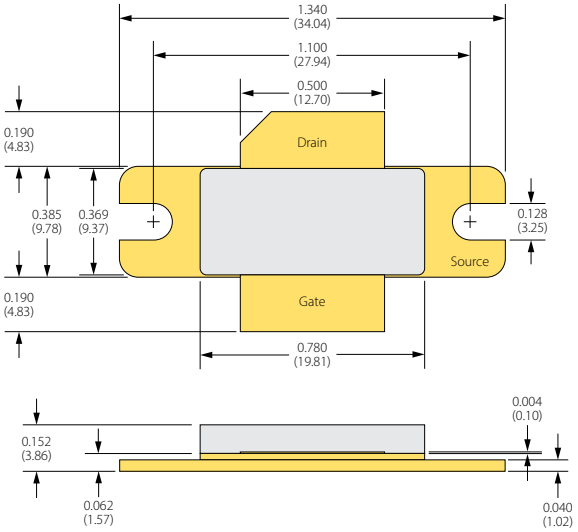

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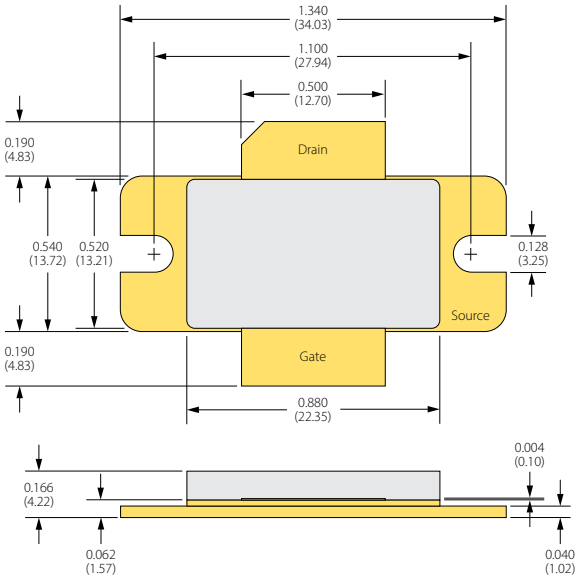

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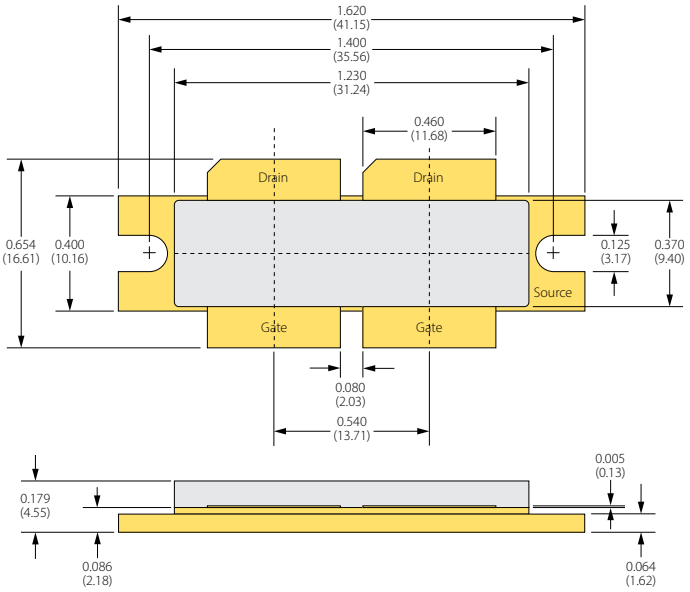

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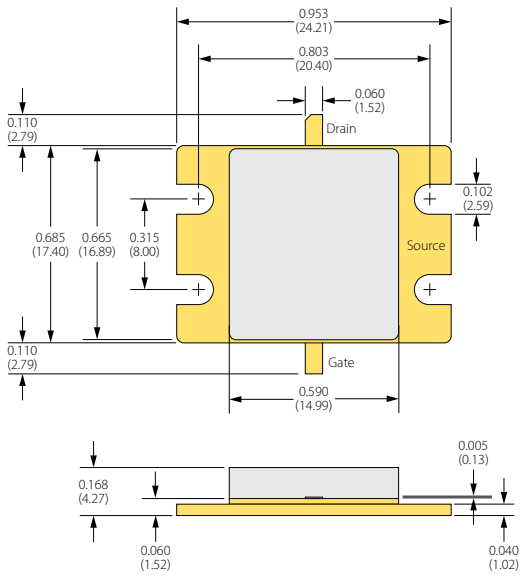

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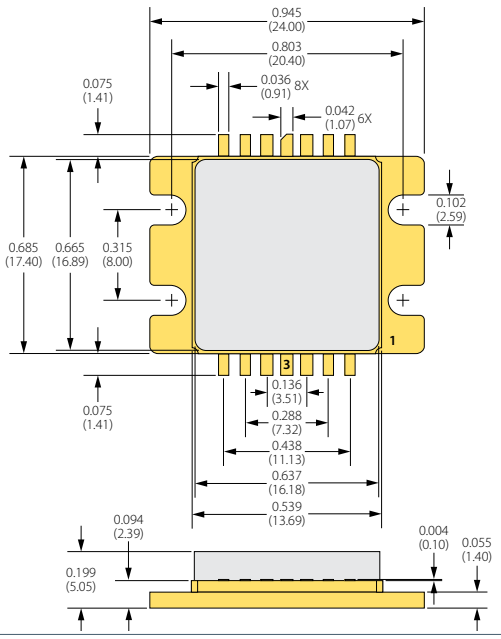

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