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Product Selection Guide | October 2026 Edition

About SuperApex

SuperApex, LLC is a RF/Microwave/Millimeter-wave company located in the suburb of Chicago, USA. We provide the innovative GaAs and GaN MMIC products, RF/Microwave/Millimeter-wave modules and chip packaging solutions and services for our customers around the world. We have completely proprietary intellectual property rights for all the product which we design and manufacture. SuperApex works with our customers from feasibility concepts through to product introductions and supply. The company prides itself on working closely with its clients and developing long-term partnerships which offers success to all parties.

- Expertise in the design & development of components and subsystems in RF, Microwave and Millimeter wave markets
- DC-65 GHz: RF, microwave & mm-wave
- Technology: GaAs and GaN
- MMICs, packaging, modules, and sub-systems

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1 Low Noise Amplifier

1.1 Broadband Low Noise Amplifier

Part Number	Freq (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Input VSWR(:1)	Output VSWR(:1)	Output P_{-1}dB (dBm)	Power Supply (V/mA)	Die or QFN
SAC3048	1~3.5	25	±1	1.2	1.3	1.3	12	5/60	Bare die
SAC3074QP3	0.02~1	29	±0.75	0.4	2	2	20	5/65	QFN3x3
SAC3055	0.01~2	22	±1.5	0.8	1.4	1.4	20	5/100	Bare die
SAC3055QP3	0.01~2	22	±1.5	0.8	1.4	1.4	20	5/100	QFN3x3
SAC3074	0.02~1	29	±0.75	0.4	2	2	20	5/65	Bare die
SAC3074Q3	0.02~1	29	±0.75	0.4	2	2	20	5/65	QFN3x3
SAC3050	0.02~6	20	±1	0.9	1.5	1.5	19	5/68	Bare die
SAC3050Q3	0.02~6	20	±1	1	1.5	1.5	19	5/68	QFN3x3
SAC3050QP3	0.02~6	20	±1	1	1.5	1.5	19	5/68	QFN3x3
SAC3081QP3	0.02~8	24	±1	1.3	1.5	1.5	13	5/55	QFN3x3
SAC3085QP3	0.02~8	18	±1.5	1.3	1.5	1.5	17	5/80	QFN3x3
SAC3002A	0.03~0.5	29	±0.1	0.4	1.4	1.4	20	5/80	Bare die
SAC3087QP3	0.03~3	24	±1	0.9	1.5	1.5	19	5/80	QFN3x3
SAC3089QP3	0.03~3.5	22	±1.3	0.9	1.5	1.5	17	5/35	QFN3x3
SAC3077Q3	0.05~6	14	±4	1.5	1.5	1.5	14	5/50	QFN3x3
SAC3008B	0.4~6	18	±1	1.2	1.5	1.5	17.5	5/58	Bare die
SAC3070	0.7~18	15	±2	2	1.85	1.85	10	5/50	Bare die
SAC3042	1.0~12.0	20.5	±0.9	2.3	1.3	1.6	16	5/60	Bare die
SAC3091QP3	1.5~8.5	27	±1	1	1.5	1.5	9	4/25	QFN3x3
SAC3042Q4	1~12	20.5	±0.9	2.3	1.3	1.6	16	5/60	QFN4x4
SAC3062	1~12	18	±2	1.6	1.4	1.4	15	5/60	Bare die
SAC3062Q3	1~12	18	±2	1.6	1.4	1.4	15	5/60	QFN3x3
SAC3080Q3	1~7	12	±1	2.5	1.5	1.5	15	5/60	QFN3x3
SAC3037	1~7	11	±0.4	3	1.6	1.6	18.2	8/60	Bare die
SAC3038	1~7	10.5	±0.6	3.4	1.5	1.5	17.5	8/67	Bare die
SAC3058	1~9	19	±1.5	1.1	1.5	1.5	19	5/65	Bare die
SAC3084QP3	2~8	27	±1	0.65	1.5	1.5	13	5/40	QFN3x3

1.2 General Low Noise Amplifier (f<8GHz)

Part Number	Freq (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Input VSWR(:1)	Output VSWR(:1)	Output P_{-1}dB (dBm)	Power Supply (V/mA)	Die or QFN
SAC3003Q3	0.2~0.6	38	±0.3	0.8	1.6	1.6	17	5/75	QFN3x3
SAC3003	0.2~0.6	38	±0.15	0.8	1.6	1.6	17	5/75	Bare die
SAC3005Q3	0.4~0.6	35.5	±0.4	0.6	1.6	1.6	18	5/75	QFN3x3
SAC3005	0.4~0.6	35.5	±0.4	0.6	1.6	1.6	18	5/75	Bare die
SAC3059	0.4~0.6	35.5	±0.5	0.5	1.4	1.3	15	5/80	Bare die
SAC3053	0.4~1.5	21	±1.0	1.6	1.6	1.6	21	5/115	Bare die

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Part Number	Freq (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Input VSWR(:1)	Output VSWR(:1)	Output P_{-1}dB (dBm)	Power Supply (V/mA)	Die or QFN
SAC3054B	0.4~2.1	27	1	1.2	1.3	1.3	14	5/50	Bare die
SAC3054BQP3	0.4~2.1	27	±1	1.2	1.3	1.3	14	5/50	QFN3x3
SAC3057	0.4~3.6	28	±0.5	1	1.3	1.4	14	5/72	Bare die
SAC4003Q3	0.0005-3	26	±1	1.2	1.5	1.5	20	5/130	QFN3x3
SAC3073	0.7~2.6	21	±1.5	1	1.8	1.5	18	5/75	Bare die
SAC4000Q3	0.7~3.5	22	±1	0.7	1.8	1.5	15@3V	3~5/45~75	QFN3x3
SAC3063Q3	0.8~1.6	30	±1.5	0.4	1.6	1.6	12	5/50	QFN3x3
SAC3063QP3	0.8~1.6	30	±1.5	0.4	1.6	1.6	12	5/50	QFN3x3
SAC3099Q3	0.8~2.5	36	±1	0.6	1.5	1.5	16	5/70	QFN3x3
SAC3013Q3	0.9~1.5	17	±1.1	0.7	1.5	1.5	12	5/40	QFN3x3
SAC3013	0.9~1.5	17	±1.1	0.7	1.5	1.5	12	5/40	Bare die
SAC4001Q3	0.9~3	33	±1	0.4	1.5	1.5	16	5/55	QFN3x3
SAC3098Q3	1~2	28	±1	0.5	1.8	1.5	5	5/13	QFN3x3
SAC3056	2~4	29	±0.5	0.5	1.4	1.4	9	5/30	Bare die
SAC3056B	2~4	30	±0.75	0.4	1.5	1.5	13	5/55	Bare die
SAC3056Q3	2~4	27	±1.5	0.6	1.5	1.5	8	+5/30	QFN3x3
SAC3056QP3	2~4	29	±1	0.4	1.6	1.6	8	5/55	QFN3x3
SAC3056BQP3	2~4	29	±0.75	0.4	1.5	1.5	13	+5/55	QFN3x3
SAC3078QP3	2~6	26	±1	0.8	1.5	1.5	14	5/60	QFN3x3
SAC3015	2~8	28.5	2.6	2.3	1.6	1.6	16.5	+5/85	Bare die
SAC3034A	3.5~6	21	±1	1.3	1.5	1.5	18	+5/65	Bare die
SAC3034AQ3	3.5~6	21	±1	1.3	1.5	1.5	18	+5/65	QFN3x3
SAC3076Q3	4.5~6	24	±1	0.8	1.5	1.5	11	5/60	QFN3x3

1.3 General Low Noise Amplifier (f≥8GHz)

Part Number	Freq (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Input VSWR (:1)	Output VSWR (:1)	Output P_{-1}dB (dBm)	Power Supply (V/mA)	Die or QFN
SAC3095QP3	2~8	24	±1	0.6	1.5	1.5	10@3V	3~5/25~45	QFN3x3
SAC3086QP3	10~13	18	±1	1.1	1.7	1.7	5	3/8; 4/11	QFN3x3
SAC3086IQP3 (Dual Channel)	10~13	18	±1	1.1	1.7	1.7	5	3/8; 4/11 (Each way)	QFN3x3
SAC4004	11~26	18	±0.5	1.8	1.5	1.8	5.5	5/19	Bare die
SAC3088Q3	12~20	18	±1	1.3	1.5	1.5	7	5/15	QFN3x3
SAC3088I	14~18	18	±1	1.1	1.5	1.5	0	4/11	Bare die
SAC3088QP3	14~18	18	±1	1.2	1.5	1.5	0	4/8	QFN3x3
SAC3088IQP3 (Dual Channel)	14~18	18	±1	1.1	1.6	1.6	0	4/11 (Each way)	QFN3x3
SAC3092	18~40	20	±1	2.0	1.8	1.6	12	5/85	Bare die
SAC3093	18~40	20	±1	2.0	1.8	1.6	12	5/87	Bare die
SAC3096QP3	2~8	30	±1	0.6	1.5	1.5	17	5/60	QFN3x3
SAC3043	6~18	22	±0.6	1.5	1.3	1.4	14	5/55	Bare die
SAC3043Q4	6~18	23.5	±1.5	1.5	1.3	1.3	15	5/55	QFN4x4
SAC3066	7~11	23	±1	1.1	1.5	1.5	18.5	5/28	Bare die

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Part Number	Freq (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Input VSWR (:1)	Output VSWR (:1)	Output P_{-1}dB (dBm)	Power Supply (V/mA)	Die or QFN
SAC3066Q3	7~11	21.5	±1.5	1.2	1.7	1.7	16	5/42	QFN3x3
SAC3094QP3	7~13	23	±1	0.7	1.5	1.5	8@3V	3~5/20~40	QFN3x3
SAC3039	7~13	20	±0.8	1.35	1.4	1.4	14	5/35	Bare die
SAC3039Q3	7~13	20	±1.5	1.4	1.3	1.4	14	5/30	QFN3x3
SAC3083QP3	7~13	20	±1.5	1	1.5	1.5	11	5/25	QFN3x3
SAC3097	7~9	26	±1	0.6	1.5	1.5	17	3/80	Bare die
SAC3052	8~12	22	N/A	1.3	1.2	1.2	14	5/32	Bare die
SAC4013Q3	10~18	19	±1	1.3	1.5	1.5	4	4/14	QFN3x3
SAC4014QP3	18~26	15	±1	1.8	1.5	1.5	0	5/12	QFN3x3
SAC4015QP3	5~18	20	±1	1.1	1.3	1.3	11	4/30	QFN3x3
SAC4016	15~37	22	±1	1.8	1.8	1.5	8	5/44	Bare die
SAC4017AQP3	0.03~18	20	±1	1.8	1.5	1.5	13	5/60	QFN3x3
SAC4018	23~43	20	±1	1.8	1.5	1.5	8	5/33	Bare die
SAC4018Q4	23~42	19	±1	2.5	2.0	2.0	7	5/33	QFN4x4
SAC4019	18~40	22	±1	1.8	1.5	1.5	10	5/37	Bare die
SAC4019Q4	18~40	20	±1	2.5	2.0	1.5	9	5/37	QFN4x4
SAC4020	18~40	20	±1	2.0	1.8	2.0	12	5/85	Bare die
SAC4020Q4	18~40	18	±1	2.5	2.0	2.0	12	5/85	QFN4x4
SAC4021	18~40	20	±1	2.0	1.8	2.0	13	5/87	Bare die
SAC4008	28~55	17	±1	3.5	2.0	1.5	15	5/114	Bare die
NEW SAC4023DP2	7.7~13	27	±0.5	1.2	2.2	2.2	5	3~4/10~35	DFN2x2
NEW SAC4024DP2	10~18	20	±1	1.5	2.5	2.5	0	2/7	DFN2x2

1.4 Broadband Distributed Amplifier

Part Number	Freq (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Input VSWR (:1)	Output VSWR (:1)	Output P_{-1}dB (dBm)	Power Supply (V/mA)	Die or QFN
SAC3045Q5	2~20	15.5	±1.0	3	1.25	1.4	14	5/60	QFN5x5
SAC3036	3.0~6.5	20	±1	2.8	1.4	1.3	15.5	5/60	Bare die
SAC3946	0.01~60	12	±1.5	6	1.6	1.5	15	6/130/-VG	Bare die
SAC3045	2~20	16	±1	3	1.3	1.3	14	5/60	Bare die
SAC3051	DC~22	16	±1	3	1.3	1.3	14	8/60/-VG	Bare die
SAC3051Q5	DC~22	16	±1	3	1.5	1.5	14	8/60/-VG	QFN5x5
SAC3064	DC~30	16	±2	4	1.5	1.3	24	8/220/-VG	Bare die
SAC3064Q5	DC~30	16	±2	6	1.6	1.4	23	8/220/-VG	QFN5x5

1.5 Limiting Low Noise Amplifier

Part Number	Freq (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Input VSWR (:1)	Output VSWR (:1)	Output P_{-1}dB (dBm)	Power Supply (V/mA)	Die or QFN
SAC4700QP3	0.02~1	28	±0.8	0.5	1.5	1.5	20	5/85	QFN3x3
SAC4701QP4	2~8	28	±0.8	1	1.5	1.5	13	5/40	QFN4x4

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Part Number	Freq (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Input VSWR (:1)	Output VSWR (:1)	Output P_{-1}dB (dBm)	Power Supply (V/mA)	Die or QFN
SAC4702QP4	0.9~4	32	±1.5	0.5	1.5	1.5	15	4~5/40~55	QFN4x4

1.6 Bypass Low Noise Amplifier

Part Number	Freq (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Bypass Loss (dB)	Input VSWR (:1)	Output VSWR (:1)	Output P_{-1}dB (dBm)	Power Supply (V/mA)	Die or QFN
NEW **SAC4502Q7**	0.5~3	20	±1	1.5	1.5	2.2	2.2	18	+5/-5/70	QFN7x7
NEW **SAC4503Q7**	0.9~3	33	±1	1	1.5	2	2	16	+5/-5/60	QFN7x7
NEW **SAC4500Q7**	0.5~6	18	±1	1.5	2	2.2	2.2	16	+5/-5/60	QFN7x7
NEW **SAC4504Q7**	2~8	30	±1	1.5	2	2.5	2.5	16	+5/-5/70	QFN7x7
NEW **SAC4501Q7**	1~10	17	±1	2	3	2.5	2.5	9	+5/-5/60	QFN7x7

2 Power Amplifier

Part Number	Freq (GHz)	Gain (dB)	Output P_{-1}dB (dBm)	PAE(%)	Third-Order Intermodulation (dBc)	Power Supply (V)	Die or QFN
SAC3122	0.001~3	25.5	30	40	N/A	12/-VG	Bare die
SAC3122QP4	0.001~3	25.5	30	40	N/A	10~14/-VG	QFN4x4
SAC3125Q6	0.1~2	15	38	45	N/A	28/-VG	QFN6x6
SAC3157	2.5~8.5	28	36	20	N/A	8/-VG	Bare die
SAC3157Q8	2.5~8.5	26	35	20	N/A	8/-VG	QFN8x8
SAC3145	2~6	21	30	29	N/A	8/-VG	Bare die
SAC3146	2~6	19	33	27	N/A	8/-VG	Bare die
SAC3156	2~8.5	18	29	20	N/A	7/-VG	Bare die
SAC3109Q6	5~6	34	35	40	N/A	8/-VG	QFN6x6
SAC3154	5~8	23	39	24	N/A	8/-VG	Bare die
SAC3160	5~8	23	33	22	N/A	8/-VG	Bare die
SAC3161Q5	2~7	28	33	25	N/A	8/-VG	QFN5x5
SAC3147	6~8	20	39	30	N/A	8/-VG	Bare die
SAC3113B	8.5~11	23	40 (P_{-3}dB)	32	N/A	8/-VG	Bare die
SAC3143	8~10	21	39	32	N/A	7/-VG	Bare die
SAC3153	8~12	24	39	40	N/A	7/-VG	Bare die
SAC3151	12.7~15.5	20	39	35	N/A	8/-VG	Bare die
SAC3116A	13.5~14.5	30	38	32	N/A	7/-VG	Bare die
SAC3116AQP6	13.5~14.5	29	38	30	-25/(30dBm/Tone)	7/-VG	QFN6x6
SAC3133B	14~18	20	38	25	-25/(30dBm/Tone) @16GHz	8/-VG	Bare die
SAC3138	14~18	18	31	30	-27/(26dBm/Tone) @16GHz	5/-VG	Bare die
SAC3155	15~17	22	33	33	N/A	5/-VG	Bare die
SAC3152	15~17	20	38	30	N/A	7/-VG	Bare die
SAC3941A	18~41	19	21	N/A	N/A	5/180	Bare die
SAC3126	18~26.5	23	32	22	N/A	6/-VG	Bare die
SAC3136	18~29	16	32	20	N/A	6/-VG	Bare die

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Part Number	Freq (GHz)	Gain (dB)	Output P_{-1}dB (dBm)	PAE(%)	Third-Order Intermodulation (dBc)	Power Supply (V)	Die or QFN
SAC3148	22~25	22	34	N/A	N/A	6/-VG	Bare die
SAC3140A	27.5~31	24	39	25	N/A	6/-VG	Bare die
SAC3127A	27.5~31	27	36	25	-25/(27dBm/Tone)	6/-VG	Bare die
SAC3127AQ6	27.5~31	27	36	25	-25/(27dBm/Tone)	6/-VG	QFN6x6
SAC3124	33.5~36.5	25	35	20	N/A	6/-VG	Bare die
SAC3129A	37~40	20	30	20	N/A	6/-VG	Bare die
SAC3162QP5	0.000009~3	11(G_P)	37 (P_{SAT})	40	N/A	28/-VG	QFN5x5
SAC3163QP5	0.000009~6	10(G_P)	35 (P_{SAT})	38	N/A	28/-VG	QFN5x5
SAC3164QP4	0.00003~8	10(G_P)	33 (P_{SAT})	55	N/A	28/-VG	QFN4x4
SAC3165QP4	0.00003~12	9(G_P)	32 (P_{SAT})	45	N/A	28/-VG	QFN4x4
NEW **SAC3133BQ6**	14~18	18	37	22	-20/(29dBm/Tone) @16GHz	7/-VG	QFN6x6
NEW **SAC3162CR5**	0.000009~3	15	40 (P_{IN}=31dBm)	40	N/A	28/-VG	Flange Drop-in

3 GaN Power Amplifier

Part Number	Freq (GHz)	Gain (dB)	Output Power (dBm)	PAE(%)	Third-Order Intermodulation (dBc)	Power Supply (V)	Die or QFN
SAC5001	0.05~2	12(G_P)	38 (P_{-4}dB)	33	-25/(32dBm/Tone)	24/-VG	Bare die
SAC5002	5~8	23(G_P)	46 (P_{IN}=23dBm)	42	N/A	28/-VG	Bare die
SAC5003	8~12	22(G_P)	46 (P_{IN}=25dBm)	40	N/A	28/-VG	Bare die
SAC5004CR5	5~8	23(G_P)	45 (P_{IN}=23dBm)	30	-25/(39dBm/Tone)	28/-VG	Flange Drop-in
SAC5006A	2~6.5	25(G_P)	47 (P_{IN}=22dBm)	30	N/A	28/-VG	Bare die
SAC5006ACR5	2~6.5	25(G_P)	46 (P_{IN}=24dBm)	25	N/A	28/-VG	Flange Drop-in
SAC5006ACR12	2~6.5	25(G_P)	48 (P_{IN}=24dBm)	22	N/A	28/-VG	Flange Drop-in
SAC5001Q6	0.05~2	13	38	33	N/A	24/-VG	QFN6x6
SAC5003CR7	8~12	29	45.5	30	N/A	28V	Flange Drop-in
SAC5002CR5	5~8	33	46	30	N/A	28V	Flange Drop-in
SAC5008CR12	5~8	20(G_P)	48	30	-25/(41.5dBm/Tone)	28/-VG	Flange Drop-in
SAC5009CR12	7.9~12	17(G_P)	47	24	N/A	28/-VG	Flange Drop-in
SAC5012	0.6~6	10(G_P)	45	50	N/A	28V	Flange Drop-in
SAC5020CR10	0.7~6	8(G_P)	48	45 (DE)	N/A	28/-VG	Flange Drop-in
SAC5022	2~8	25(G_P)	44	33	N/A	28/-VG	Bare die
SAC5022CR5	2~8	24(G_P)	43	28	N/A	28/-VG	Flange Drop-in
SAC5023CR5	4~7	20(G_P)	46	30	N/A	28/-VG	Flange Drop-in
SAC5024CR12	2~8	21(G_P)	46.5	24	N/A	28/-VG	Flange Drop-in
NEW **SAC5024CR12-A**	2~8	21(G_P)	47.5	30	N/A	28/-VG	Flange Drop-in
SAC5025	6~12	19(G_P)	42	30	N/A	28/-VG	Bare die
SAC5025CR12	6~12	18(G_P)	41.5	20	N/A	28/-VG	Flange Drop-in
SAC5028CR12	6~12	18(G_P)	44	22	N/A	28/-VG	Flange Drop-in
SAC5029CR12	2.2~6.5	25(G_P)	48	25	N/A	28/-VG	Flange Drop-in
SAC5026CR5	0.9~1.5	35(G_P)	47 (P_{IN}=24dBm)	45	N/A	28/-VG	Flange Drop-in

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Part Number	Freq (GHz)	Gain (dB)	Output Power (dBm)	PAE(%)	Third-Order Intermodulation (dBc)	Power Supply (V)	Die or QFN
SAC5027Q6	1~3	15(G_P)	40 (P_{IN}=25dBm)	35	N/A	28/-VG	QFN6x6
SAC5031	13.5~15.5	20(G_P)	46 (P_{IN}=27dBm)	30	N/A	28/-VG	Bare die
SAC5033	34~36	15(G_P)	36	18	N/A	28/-VG	Bare die
SAC5034	37~43	17(G_P)	36	18	N/A	28/-VG	Bare die

4 Driver Amplifier

Part Number	Freq (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Input VSWR (:1)	Output VSWR (:1)	Output P_{-1}dB (dBm)	Power Supply (V/mA)	Die or QFN
SAC3908Q3	0.1~4	15	±1	4	1.5	1.5	26.5@1GHz	5~8/100/-VG	QFN3x3
SAC3903	0.9~1.3	36	±0.5	3.2	1.8	1.8	25.5	8/162	Bare die
SAC3908	0.1~4	14	±1	4	1.5	1.5	26	8/150	Bare die
SAC3937AQP4	0.03~3	16	±0.5	N/A	1.5	N/A	30	12/360	QFN4x4
SAC3913BQ4	7.9~9	24	±1	N/A	1.3	1.8	28	8/230	QFN4x4
SAC3916	12~18	22	±1.25	N/A	1.5	1.5	30	6/1000	Bare die
SAC3945A	18~45	15	±1.5	8	1.35	1.35	25	5/450	Bare die
SAC3952	26~45	15	±1.5	8	1.35	1.35	27	5/800	Bare die
SAC3947QP3	0.03~2	17	±0.75	1.7	1.6	1.6	27	8/270	QFN3x3
SAC3939Q4	0.03~6	16	1	N/A	N/A	N/A	27	12/160	QFN4x4
SAC3904Q3	7~12	24	1.5	5.5	N/A	N/A	17.5	5/68	QFN3x3
SAC3907	26~38	16	±1	N/A	1.7	1.4	26	6/450	Bare die
SAC3930Q3	0.05~1.5	12	±1	2.5	1.5	1.5	18	5/80	QFN3x3
SAC3928Q3	0.05~1.5	10	±1	3.5	1.5	1.5	17	5/80	QFN3x3
SAC3938QP3	0.05~6	10	±1	5.5	1.5	1.5	20	5~8/100	QFN3x3
SAC3901AQP3	0.9~1.3	20	±0.5	4	1.5	2.2	26	5/180	QFN3x3
SAC3934Q3	0.05~3	13	±0.75	3	1.75	1.75	24	8/200	QFN3x3
SAC3948	1.1~1.6	18	±1	N/A	1.5	1.5	28	+5/350	Bare die
SAC3932QP3	0.05~6	15	±1.5	3	1.75	1.75	27	8~12/150	QFN3x3
SAC3933Q3	0.5~6	12	±1.5	2	1.75	1.75	18	5/80	QFN3x3
SAC3918	2~10	18	N/A	5.5	1.4	1.2	19	5/80	Bare die
SAC3918Q3	2~10	18	±1.5	N/A	1.7	1.3	19	5/80	QFN3x3
SAC3913	8~13	19	±2	N/A	1.4	1.4	32.5	5~6/650	Bare die
SAC3913Q5	8~13	19	±2	N/A	2	1.7	32	5~6/650	QFN5x5
SAC3923	1~20	11	±1.2	3	1.6	1.3	28.5	10/320	Bare die
SAC3915	6~18	17	±0.75	5	1.5	1.5	20	6/80	Bare die
SAC3915Q3	6~18	18	±1	N/A	1.6	1.5	18	6/80	QFN3x3
SAC3917	6~18	16	±0.5	3.5	1.4	1.4	16	5/52	Bare die
SAC3916Q5	12~18	22	±1.25	N/A	1.5	N/A	30	6/1000	QFN5x5
SAC3914	14~18	19	±2	N/A	2	N/A	31	5~6/500	Bare die
SAC3914Q4	14~18	19	±2	N/A	2	N/A	31	5~6/500	QFN4x4
SAC3912	20~38	8	±0.75	5	1.3	1.3	18	4~6/100	Bare die
SAC3910	22~38	15	±0.75	6.5	1.6	1.6	24	5/250	Bare die

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Part Number	Freq (GHz)	Gain (dB)	Gain Flatness (dB)	Noise Figure (dB)	Input VSWR (:1)	Output VSWR (:1)	Output P_{-1}dB (dBm)	Power Supply (V/mA)	Die or QFN
SAC3911	24~40	12	±1	5	1.4	1.4	15	4/60	Bare die
SAC3925	26~38	16	±1	N/A	1.7	1.4	26	6/300	Bare die
SAC3935	42~47	18	±2	9	1.6	1.6	20	5/200	Bare die
SAC3953	54~58	17	±2	9	1.6	1.6	20	5/350	Bare die
SAC3955	47~58.5	15	±1.5	10	1.35	1.35	20	6/550	Bare die
SAC3956	20~55	20	±3.0	5	2.0	1.5	16	5/110	Bare die
NEW **SAC3931**	18~40	14	±3.5	6	1.35	1.35	22	5/350/-VG	Bare die

5 Switch

Part Number	Freq (GHz)	Switch Configuration	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB) (ON)	Return Loss (dB) (OFF)	Input P_{-1}dB (dBm)	Input IP_3 (dBm)	Control Voltage(V)	Die or QFN
SAC3204S	DC~4	SPDT Non-Reflection	0.8	70	20	20	29	N/A	0/+3~+5	Bare die
SAC3208AQ3	DC~12	SPST Reflection	0.9	60	18	18	N/A	N/A	0/+3.3~+5	QFN3x3
SAC3201AQ3	DC~20	SPDT Non-Reflection	1.8	50	20	N/A	30	48	0/-5	QFN3x3
SAC3209AQ3	DC~20	SPST Reflection	1	55	14	N/A	N/A	N/A	0/+3.3~+5	QFN3x3
SAC3229Q3	DC~12	SP3T Non-Reflection	1.5	50	18	-20	20	N/A	0/+5	QFN3x3
SAC3218A	0.5~3	SPDT Non-Reflection	0.6	70	20	21	N/A	N/A	0/+5	Bare die
SAC3204SQ3	DC~4	SPDT Non-Reflection	-0.8	70	N/A	N/A	29	49	0/+5	QFN3x3
SAC3204SQP3	DC~4	SPDT Non-Reflection	0.8	70	20	N/A	30	45	0/+3.3~+5	Plastic QFN3x3
SAC3204M	DC~4	SPDT Non-Reflection	0.8	70	20	20	29	N/A	0/+3.3~+5	Bare die
SAC3219A	1~4	SPDT Reflection	0.7	47	15	N/A	N/A	N/A	0/+5	Bare die
SAC3214A	DC~8	SP3T Non-Reflection	1.5	50	18	N/A	20	N/A	0/+5	Bare die
SAC3215A	DC~8	SP3T Non-Reflection	1.5	50	18	N/A	20	N/A	0/+5	Bare die
SAC3202A	DC~12	SPDT Reflection	0.8	48	20	N/A	N/A	42	0/+3.3~+5	Bare die
SAC3202AQ3	DC~12	SPDT Reflection	1.1	48	20	N/A	25	42	0/+3.3~+5	QFN3x3
SAC3203A	DC~12	SPDT Reflection	0.8	48	20	N/A	25	42	0/+3.3~+5	Bare die
SAC3203AQ3	DC~12	SPDT Reflection	1.1	48	20	N/A	25	42	0/+3.3~+5	QFN3x3
SAC3216	DC~12	SPDT Non-Reflection	1.2	45	15	N/A	30	48	0/-5	Bare die
SAC3201A	DC~20	SPDT Non-Reflection	1.8	50	15	20	N/A	N/A	0/-5	Bare die
SAC3205BQP3	DC~20	SPDT Reflection	1.5	40	1.3	N/A	20	35	0/+5	Plastic QFN3x3
SAC3206	DC~20	SPDT Non-Reflection	2.3	45	15	N/A	30	48	0/+5	Bare die

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Part Number	Freq (GHz)	Switch Configuration	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB) (ON)	Return Loss (dB) (OFF)	Input P_{-1dB} (dBm)	Input IP_3 (dBm)	Control Voltage(V)	Die or QFN
SAC3206Q3	DC~20	SPDT Non-Reflection	2.3	45	20	N/A	30	48	0/+5	QFN3x3
SAC3209A	DC~20	SPST Reflection	1	55	15	N/A	N/A	N/A	0/+3.3~+5	Bare die
SAC3220	DC~20	SP4T Non-Reflection	2.5	50	15	N/A	N/A	N/A	0/+3.3~+5	Bare die
SAC3220Q3	DC~20	SP4T Non-Reflection	2.5	50	16	N/A	N/A	N/A	0/+3.3~+5	QFN3x3
SAC3227	0.01~40	SPDT Reflection	2.3	30	16	N/A	15	N/A	0/+3.3~+5	Bare die
SAC3229	DC~12	SP3T Non-Reflection	1.5	50	N/A	N/A	20	N/A	0/+5	Bare die

6 PIN Switch

Part Number	Freq (GHz)	Switch Configuration	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB) (ON)	Return Loss (dB) (OFF)	Input P_{-1dB} (dBm)	Input IP_3 (dBm)	Control Voltage(V)	Die or QFN
SAC3231	15~50	SPDT Reflection	2	40	13	N/A	N/A	N/A	-V/+V	Bare die
SAC3230	5~30	SP3T Reflection	0.9	40	13	N/A	N/A	N/A	-V/+V	Bare die
SAC3232	4~15	SPDT Reflection	0.8	40	13	N/A	N/A	N/A	-V/+V	Bare die
SAC3234	24~38	SPDT Reflection	1	30	13	N/A	N/A	N/A	-V/+V	Bare die
SAC3237	15~50	SP3T Absorption	2.5	35	12	N/A	N/A	N/A	-V/+V	Bare die
SAC3233	26~40	SP3T Reflection	1.5	30	13	N/A	N/A	N/A	-V/+V	Bare die
SAC3238	36~43.5	SPDT Reflection	0.8	24	13	N/A	N/A	N/A	-V/+V	Bare die
SAC3233Q4	24~35	SP3T Reflection	1.5	30	N/A	N/A	N/A	N/A	-V/+V	QFN4x4
SAC3241Q4	2~18	SP3T Reflection	1.3	55	N/A	N/A	N/A	N/A	-V/+V	QFN4x4
SAC3232Q4	2~18	SPDT Reflection	1.1	45	N/A	N/A	N/A	N/A	-V/+V	QFN4x4
SAC3242Q5	5~7	SPDT Reflection	1	33	N/A	N/A	43 ($P_{-0.3}$)	N/A	-V/+V	QFN5x5

7 Phase Shifter

Part Number	Freq (GHz)	Resolution (bits)	Insertion Loss(dB)	Input VSWR (:1)	Output VSWR (:1)	Phase Accuracy (°)	RMS (°)	Control Voltage (V)	Die or QFN
SAC3301B	0.9~1.3	6	5.5	1.3	1.3	2	1.5	5	Bare die
SAC3301BQ6	0.9~1.3	6	5.5	1.3	1.3	±2	1.5	0/+5	QFN6x6
SAC3302Q6	1.2~1.6	6	-5	1.3	1.3	-2.2~3	1.4	0/-5	QFN6x6
SAC3310	1.2~1.4	6	-4.8	1.3	1.4	-1.5~1.5	1	0/+5	Bare die
SAC3310Q6	1.2~1.4	6	-4.8	1.2	1.2	-1.5~1.5	1	0/+5	QFN6x6
SAC3302	1.2~1.6	6	-5	1.3	1.3	-2.2~3	1.4	0/-5	Bare die
SAC3311	1.2~1.6	6	-5	1.3	1.4	-1.5~2.5	1.5	0/+5	Bare die
SAC3311Q6	1.2~1.6	6	-5.2	1.3	1.3	±2	1.2	0/+5	QFN6x6
SAC3311A	1.2~1.8	6	-4.7	1.4	1.4	±2	1	0/+5	Bare die
SAC3311AQ6	1.2~1.8	6	-4.7	1.4	1.4	±2	1	0/+5	QFN6x6
SAC3315	1~2	6	-8	1.2	1.2	N/A	N/A	0/-5	Bare die
SAC3315Q6	1~2	6	-7	2	2	-5~5	2	0/+5	QFN6x6

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Part Number	Freq (GHz)	Resolution (bits)	Insertion Loss(dB)	Input VSWR (:1)	Output VSWR (:1)	Phase Accuracy (°)	RMS (°)	Control Voltage (V)	Die or QFN
SAC3303	2.2~2.6	6	-4.5	1.3	1.3	-1~1	0.8	0/+5	Bare die
SAC3303Q5	2.2~2.6	6	-4.8	1.3	1.3	-1~1	1	0/+5	QFN5x5
SAC3312A	2.0~3.2	6	-8	1.4	1.4	-3~5	2	0/+5	Bare die
SAC3312AQ6	2.0~3.2	6	-8	1.08	1.12	-8~8	3.5	0/+5	QFN6x6
SAC3304	2.7~3.5	6	-5.2	1.6	1.4	-2~4.5	2	0/+5	Bare die
SAC3304Q6	2.7~3.5	6	-5.5	1.2	1.2	-3~3	2	0/+5	QFN6x6
SAC3305	2.7~3.5	6	-4.8	1.5	1.4	-2~4	2	0/-5	Bare die
SAC3305Q6	2.7~3.5	6	-5.5	1.2	1.2	-3~3	2	0/+5	QFN6x6
SAC3309	3.4~4.2	6	-5.5	1.5	1.5	-5~2.5	1	0/+5	Bare die
SAC3309Q6	3.4~4.2	6	-5.8	1.3	1.3	-5~2.5	1	0/+5	QFN6x6
SAC3306A	5~6	6	-5.5	1.4	1.4	-6~3	2.0	0/+5	Bare die
SAC3306AQP5	5~6	6	-6	1.4	1.4	-8~2	3	0/+5	QFN5x5
SAC3307B	8~12	6	-8	1.7	1.7	-4~6	2.5	0/+5	Bare die
SAC3307BQ6	8~12	6	-8	1.2	1.3	-3~3	N/A	0/-5	QFN6x6
SAC3316	6~18	6	-14	1.5	1.5	N/A	N/A	0/-5	Bare die
SAC3308	14~18	6	-10	1.7	1.5	-7~2	3	0/+5	Bare die
SAC3308Q6	14~18	6	-10	1.4	1.4	-4~4	2.5	0/+5	QFN6x6
SAC3323	32~38	6	-9	1.8	2	N/A	N/A	0/-5	Bare die

8 Attenuator

Part Number	Freq (GHz)	Resolution (bits)	Insertion Loss (dB)	Input VSWR (:1)	Output VSWR (:1)	Attenuation Accuracy (dB)	RMS(dB)	Control Voltage (V)	Die or QFN
SAC3410	2~8	N/A	2.5	1.2	1.3	N/A	N/A	0/+5	Bare Die
SAC3402A	DC~6	6	-2.5	1.4	1.4	-0.3~1	0.8	0/+5	Bare die
SAC3402AQ4	DC~6	6	-2.6	1.4	1.4	-0.3~1	0.8	0/+3.3~5	QFN4x4
SAC3404	DC~12	2	-2.2	1.4	1.5	-0.5~1.5	1	0/+5	Bare die
SAC3406B	DC~12	6	-1.5	1.3	1.2	-0.6~1	0.5	0/+5	Bare die
SAC3406BSPQ4	DC~12	6	-1.8	1.3	1.2	-0.5~2	0.5	0/+5	QFN4x4
SAC3408BSPQ4	DC~12	6	-2.8	1.3	1.3	-1~3.5	1	0/+5	QFN4x4
SAC3409	DC~13	6	-2	1.3	1.3	N/A	N/A	0/-5	Bare die
SAC3403	8~12	6	-3.8	1.3	1.3	-0.5~1	0.5	0/+5	Bare die
SAC3408B	DC~20	6	3.8	-15	-15	±2	0.8	0/+5	Bare die
SAC3411	DC~20	N/A	1.0	1.5	1.5	N/A	N/A	N/A	Bare die
SAC3411Q3	DC~20	N/A	1.0	1.5	1.5	N/A	N/A	N/A	QFN3x3

9 Mixer

Part Number	Type	RF Freq (GHz)	LO Freq (GHz)	IF Freq (GHz)	Conversion Gain (dB)	LO-RF Isolation (dB)	LO-IF Isolation (dB)	RF-IF Isolation (dB)	LO Drive (dBm)	Output P_{-1dB} (dBm)	Power Supply (V/mA)	Die or QFN
SAC3507A	Double Balanced Mixer	0.9~3	0.9~3	DC~0.8	-8	-40	-30	N/A	0	11	5/32	Bare die

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Part Number	Type	RF Freq (GHz)	LO Freq (GHz)	IF Freq (GHz)	Conversion Gain (dB)	LO-RF Isolation (dB)	LO-IF Isolation (dB)	RF-IF Isolation (dB)	LO Drive (dBm)	Output P-1dB (dBm)	Power Supply (V/mA)	Die or QFN
SAC3507AQ5	Double Balanced Mixer	0.9~3	0.9~3	DC~0.8	-8	-40	-20	-18	0	N/A	5/32	QFN5x5
SAC3501	Up Converter	2~3.5	2~3.5	0.01~0.6	+8	-40	N/A	N/A	0	8	5/85	Bare die
SAC3502	Down Converter	2~3.5	2~3.5	0.01~0.6	+13	-45	N/A	N/A	0	4.5	5/85	Bare die
SAC3503	Down Converter	2~3.5	2.6~3.5	0.01~0.6	+13	-45	-47	-38	0	4.5	+5/85	Bare die
SAC3508	Double Balanced Mixer	2~6	2~6	DC~2	-8	-25	-20	N/A	0	7.5	5/42	Bare die
SAC3508Q4	Double Balanced Mixer	2~6	2~6	DC~2	-8	-24	-24	N/A	0	11	5/42	QFN4x4
SAC3505	Double Balanced Mixer	3.5~9	3.5~9	DC~1	-9	-35	-21	-21	13	7	N/A	Bare die
SAC3515Q5	Double Balanced Mixer	3.5~9	3.5~9	DC~3	-8	-30	-30	-30	-4	N/A	N/A	QFN5x5
SAC3509	Double Balanced Mixer	5~10	5~10	DC~4	-8	-38	-35	-15	13	9.8	N/A	Bare die
SAC3511	Double Balanced Mixer	8~12	8~12	DC~3	+15	-50	-30	-40	0	N/A	N/A	Bare die
SAC3504	Double Balanced Mixer	7~14	7~14	DC~3	-8	-35	-27	-18	13	6	N/A	Bare die
SAC3510	Double Balanced Mixer	5~16	5~16	DC~6	-8.5	-38	-33	-16	13	12	N/A	Bare die
SAC3506	Double Balanced Mixer	11~20	11~20	DC~4	-8	-30	-27	-18	13	10	N/A	Bare die
SAC3514	Sub-harmonic Mixer	14~30	14~30	DC~6	-7	-45	-32	-32	13	N/A	N/A	Bare die
SAC3517	Double Balanced Mixer	14~32	4~20	DC~7	-12	-30	-32	-30	15	N/A	N/A	Bare die
SAC3513	Double Balanced Mixer	18~32	18~32	DC~10	-7.5	-40	-30	-35	13	N/A	N/A	Bare die
SAC3513Q3	Double Balanced Mixer	18~32	18~32	DC~10	-7.5	-40	-30	-35	13	N/A	N/A	QFN3x3
SAC3518	Double Balanced Mixer	18~36	9~16	DC~7	-13	-30	-15	-35	0	N/A	N/A	Bare die
SAC3516	Double Balanced Mixer	24~34	12~18	DC~4	-9	-35	-30	-25	4	16	N/A	Bare die
SAC3512	Double Balanced Mixer	24~40	24~40	DC~10	-8.5	-40	-30	-30	13	N/A	N/A	Bare die

10 Power Divider

Part Number	Freq (GHz)	Description	Insertion Loss(dB)	Amplitude Unbalance (dB)	Input VSWR (:1)	Output VSWR (:1)	Isolation (dB)	Die or QFN
SAC3809Q4	1~18	0° Two-Way Divider	-1.8	±0.2	1.4	1.4	-20	QFN4x4
SAC3808	2~6	0° Two-Way Divider	-0.7	±0.07	1.4	1.4	-13	Bare die
SAC3809	1~18	0° Two-Way Divider	-1	±0.2	1.4	1.4	-20	Bare die
SAC3807	8~12	0° Two-Way Divider	-0.9	±0.05	1.3	1.3	-23	Bare die

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Part Number	Freq (GHz)	Description	Insertion Loss(dB)	Amplitude Unbalance (dB)	Input VSWR (:1)	Output VSWR (:1)	Isolation (dB)	Die or QFN
SAC3811Q5	8~12	0° Four-Way Divider	-1.8	±0.1	1.3 (RFC)	1.25 (RF1/RF2/RF3/RF4)	-35	QFN5x5
SAC3801A	2~20	0° Two-Way Divider	-1	±1	1.3	1.3	-20	Bare die
SAC3801AQ4	2~20	0° Two-Way Divider	-1	±0.25	1.4	1.4	-20	QFN4x4
SAC3802A	6~18	0° Three-Way Divider	-0.7	±0.2	1.3	1.2	-25	Bare die
SAC3803A	6~18	0° Three-Way Divider	-1	±0.2	1.3	1.3	-25	Bare die
SAC3803AQ4	6~18	0° Three-Way Divider	-1	0.4	1.5	1.5	-28	QFN4x4
SAC3805	18~26	0° Two-Way Divider	-0.9	N/A	1.8	1.2	-19	Bare die

11 Multifunction Chip

Part Number	Freq (GHz)	Description	Gain (dB)	RMS of Phase Accuracy (°)	RMS of Attenuation Accuracy (dB)	Control Voltage (V)	Die Size (mm)	Die or QFN
SAC3616	2.2~2.6	Integrated 12-bit, amplifier, 6-bit phase shifter, 6-bit attenuator	12.5	1.5	0.5	0/+5	N/A	Bare die
SAC3617	0.9~1.3	Integrated 12-bit, amplifier, 6-bit phase shifter, 6-bit attenuator	12.5	1.5	0.5	0/+5	N/A	Bare die
SAC3618	5~6	Integrated 12-bit, amplifier, 6-bit phase shifter, 6-bit attenuator	12.5	1.5	0.5	0/+5	N/A	Bare die
SAC3602	1.98~2.3	Integrated 12-bit SIPO, amplifier, 6-bit phase shifter, 6-bit attenuator	16.5	1.5	0.5	0/+5	3.2x3.2x0.1	Bare die
SAC3601	2.7~3.1	Integrated 4-bit phase shifter and 2-bit attenuator	-3.5	0.8	0.08	0/+5	3.1x1.25x0.1	Bare die
SAC3603	5~6	Integrated switch, amplifier, 6-bit phase shifter, 6-bit attenuator	10.5	2.5	0.3	0/+5	5.0x3.5x0.1	Bare die
SAC3613	8~12	X-band Integrated phase shifter, attenuator	1.5	2.5	1	0/+5	5.0x3.5x0.1	Bare die

Part Number	Conversion Gain (dB)	Description	RF Freq (GHz)	LO Freq (GHz)	IF Freq (GHz)	Control Voltage (V)	Die Size (mm)	Die or QFN
SAC3604	6	Integrated with RF bidirectional amplifier, LO driver amplifier, dual balanced mixer and switch	0.7~2.0	0.7~2.0	DC~1	0	N/A	Bare die
SAC3605	16	Integrated with RF bidirectional amplifiers, a LO drive amplifier, a double balanced mixer, switches, a low pass filter, and 3-bit digital controlled attenuators	2.5~5.0	2.5~5.0	0.65~1.5	0	N/A	Bare die
SAC3606	-8.5	Integrated switch, mixer and low- pass filter	8.0~12	10.8~14.8	2.8	-3	N/A	Bare die
SAC3606Q4	-9	Integrated switch, mixer and low- pass filter	8.0~12	10.8~14.8	2.8	-3	N/A	QFN4x4
SAC3607	5	Integrated switch, mixer, low pass filter, amplifier	8.0~12	10.8~14.8	2.8	3	N/A	Bare die
SAC3607Q5	4.5	Integrated switch, mixer, low pass filter, amplifier	8.0~12	10.8~14.8	2.8	3	N/A	QFN5x5

Part Number	Freq (GHz)	Description	Gain (dB)	Output P_{-1dB} (dBm)	Control level (V)	Working Current (mA)	Die Size (mm)	Die or QFN
SAC3608	2.0~4.0	Realization of switch transceiver and amplifier	25.5	16	5	80	2.5x2.1x0.1	Bare die
SAC3609	0.7~5.0	Realization of switch transceiver and amplifier	21.0	16	5	120	2.5x2.1x0.1	Bare die
SAC7001	N/A	GaAs High Speed Logic Gate Serial- in Parallel-out Shift Register	N/A	N/A	N/A	N/A	3.75x1.25x0.1	Bare die

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12 PIN Limiter

Part Number	Freq(GHz)	Insertion Loss (dB)	CW Power Handling(dBm)	Input VSWR (:1) (Typ.)	Output VSWR (:1) (Typ.)	Flat Leakage (dBm)	Die or QFN
SAC3240	2~6	-0.8	36	1.4	1.4	21	Bare die
SAC3247	0.1~6	-0.6	48	1.3	1.3	16	QFN4x4
SAC3248	0.1~4	-0.6	50	1.3	1.3	16	QFN4x4

13 Amplitude Equalizer

Part Number	Freq(GHz)	Insertion Loss (dB)	Slope(dB)	Input VSWR (:1) (Typ.)	Output VSWR (:1) (Typ.)	Die or QFN
SAC3704	0.5~6	-0.4@6GHz	2	1.2	1.2	Bare die
SAC3702	1~20	-2.5@20GHz	4	1.2	1.2	Bare die
SAC3702Q3	1~20	-1.5@20GHz	4	1.4	1.4	QFN3x3
SAC3703	1~20	-2.8@20GHz	8	1.2	1.2	Bare die
SAC3703Q3	1~20	-2@20GHz	9	1.4	1.4	QFN3x3

14 Power Detector

Part Number	Freq (GHz)	Flatness (dB)	Input VSWR (:1)	Dynamic Range (dB)	Rise Time (ns)	Fall Time (ns)	I_D (mA)	Die or QFN
SAC1001	DC~20	1	1.6	30	100	300	2.5	Bare die
SAC1001Q3E2	0.5~20	1	2	30	100	300	2.5	QFN3x3
SAC1003QP3	0.5~20	2	2	40	100	300	2.5	Plastic QFN3x3
SAC1003A	0.5~27	1	2	40	100	300	2.5	Bare die
SAC1002	1~40	1	2	30	50	300	2.0	Bare die
SAC1002Q3	1~40	2	2	30	50	300	2	QFN3x3
SAC1004	2~67	3	1.6	30	25	75	2	Bare die

15 Transistor

Part Number	Freq (GHz)	Gain (dB)	Noise Figure (dB)	Output P_{-1}dB (dBm)	Output IP_3 (dBm)	Die or QFN
SAC2501	0.1~8	28	0.5	18	33	Bare die
SAC2502	0.1~8	21	0.8	17	33	Bare die
SAC2503	0.1~40	10	1.5	13	22	Bare die
SAC2504	0.1~40	12	1.8	13	22	Bare die

16 Spiral Inductor

Part Number	Turns	Inductance (nH, typ.)	Rs@DC (Ohm)	Rs@GHz (Ohm)	Q@GHz	Resonant Freq (GHz)	Chip Size (mm×mm)
SAC6005A	3.5	5	1	3.7@4.0	26.5@4.0	16.5	0.75x0.75x0.2
SAC6007P5A	4.5	7.5	1.3	6.0@4.0	27.0@4.0	12.8	0.80x0.80x0.2
SAC6010A	5.5	10	1.6	8.0@4.0	26.0@4.0	11.3	0.80x0.80x0.2

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Part Number	Turns	Inductance (nH, typ.)	Rs@DC (Ohm)	Rs@GHz (Ohm)	Q@GHz	Resonant Freq (GHz)	Chip Size (mm×mm)
SAC6015A	6.5	15	2.1	5.6@4.0	26.5@4.0	8.5	0.80x0.80x0.2
SAC6020A	7.5	20	2.6	7.5@2.0	28.5@2.0	7.0	0.80x0.80x0.2
SAC6050A	9.5	50	5.1	10.6@1.0	28.5@1.5	2.8	0.95x0.95x0.2
SAC6090A	12.5	90	8	26.3@1.0	26.5@1.0	1.8	1.10x1.10x0.2
SAC6200A	17.5	200	14	30.0@1.0	23.0@1.0	1.0	1.37x1.37x0.2

17 Module

Part Number	Type	Freq	Gain	Gain Flatness (dB)	Noise Figure	Input Return Loss	Output Return Loss	Output P-1dB (dBm)	Reverse Isolation	Power Supply (V/A)	Size (mm)
SAC1103	DA	26~40	11	±1.5	N/A	N/A	N/A	15	N/A	6/0.1	N/A
SAC1104	DA	28~32	25	±1.5	N/A	N/A	N/A	28	N/A	6/0.8	N/A
SAC1105	DA	33~38	25	±1.5	N/A	N/A	N/A	26	N/A	6/0.8	N/A
SAC1121	PA	27.5~31	25	±1.5	N/A	-16	-16	40	N/A	6/13	N/A
SAC1123	PA	34~36	24	N/A	N/A	1.6	1.6	40	N/A	6.3/11	N/A
SAC1125	PA	9~11	23	N/A	5.5	-14	-12	N/A	N/A	13.5/5.5	N/A
SAC1127	PA	13.5~14.75	23	N/A	N/A	-14	-14	47.5	N/A	8.5/25	N/A
SAC1128	DA	26~40	25	N/A	5.5	N/A	N/A	23	N/A	8/0.35	N/A
SAC1129	PA	28~30	30	N/A	N/A	-10	-5	32.5	N/A	6/1.4	N/A
SAC1130	LNA	0.03~0.45	30	N/A	0.6	-10	-15	40.5	-45	8/0.1	54×30×8
SAC1131	LNA	0.35~0.7	36	N/A	0.6	-15	-13	18	N/A	7/0.1	N/A
SAC1132	LNA	0.7~1.4	33	N/A	0.7	-14	-13	20	-42	7~15/0.1~0.15	N/A
SAC1133	LNA	1.7~2.7	32	N/A	0.9	-14	-13	8	-45	7/0.07	N/A
SAC1134	LNA	2~8	32	N/A	1.0	-14	-13	12	N/A	7/0.12	N/A
SAC1134-RS	LNA	2~8	28	±1.0	1.2	-14	-13	11	N/A	15/0.11	N/A
SAC1135	LNA	1.2~3.4	34	N/A	0.7	-14	-13	17	-55	7~15/0.11	54×30×8
SAC1136	LNA	0.9~2	15	N/A	0.7	N/A	N/A	15	-28	7~15/0.04	54×30×8
SAC1137	LNA	2.4~2.5	27.5	N/A	2.7	-14	-14	11	-53	5/0.07	N/A
SAC1139	SPDT	5.1~5.3	N/A	N/A	N/A	N/A	N/A	N/A	-50	5/0.1	34x22x10
SAC1140	LNA	0.01~2	23	N/A	0.8	N/A	N/A	20	-45	5/0.1	54×30×8
SAC1141	PA	9~11	23	N/A	5.5	1.5	1.7	N/A	N/A	13.5~15/5.5	N/A
SAC1145	PA	0.7~1.3	31	±1.5	N/A	-14	-15	36	N/A	8/1.2	25.4×34×5.5
SAC1148	PA	5.4~5.8	20	±1.5	N/A	N/A	N/A	36	N/A	8~28/2	52.9×32×10
SAC1149A	LNA	2~4	30	±1.0	0.6	-14	-14	10	N/A	5/0.04	17.8×20×8.35
SAC1150	PA	9~11	22.5	N/A	10.5	-14	-14	N/A	N/A	15/8.5	N/A
SAC1151	DA	0.1~20	27	±1.0	3.5	N/A	N/A	10	N/A	9/0.13	40×20×9
SAC1154	DA	0.1~20	46	±1.5	3.5	N/A	N/A	10	N/A	9~15/0.23	40×20×9
SAC1155	PA	0.7~1.5	32	±1.0	N/A	-14	-15	N/A	N/A	28/0.8	N/A
SAC1156	LNA	2~8.5	27	±1.5	1.0	N/A	N/A	10	N/A	5/0.04	17.8×20×8.35
SAC1157	LNA	2~4	28	±1.0	0.6	N/A	N/A	10	N/A	5/0.03	17.8×20×8.35
SAC1157-R	LNA	2~4	28	±1.0	0.6	N/A	N/A	10	N/A	7-15/0.03	17.8×20×8.35

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Part Number	Type	Freq	Gain	Gain Flatness (dB)	Noise Figure	Input Return Loss	Output Return Loss	Output P-1dB (dBm)	Reverse Isolation	Power Supply (V/A)	Size (mm)
SAC1158	LNA	0.8~1.6	32	±1.0	0.5	N/A	N/A	13	N/A	5/0.05	17.8×20×8.35
SAC1159-R	LNA	2~4	55	±1.0	45°K	N/A	N/A	10	N/A	7-15/0.07	17.8×20×8.35
SAC1159A-R	LNA	2~4	55	±1.0	45°K	N/A	N/A	10	N/A	7-15/0.07	17.8×21.8×8.35
SAC1160	LNA	1~12	16	±1.0	1.5	N/A	N/A	13	N/A	5/0.06	17.8×20×8.35
SAC1160-R	LNA	1~12	16	±1.0	1.5	N/A	N/A	13	N/A	7-15/0.06	17.8×20×8.35
SAC1161	LNA	0.4~6	17	±1.0	1.2	N/A	N/A	17	N/A	5/0.06	17.8×20×8.35
SAC1163-R	LNA	0.8~1.6	60	±1.0	40°K	N/A	N/A	12	N/A	7-15/0.1	17.8×20×8.35
SAC1165-R-1	LNA	7.5~9	50	±1.0	0.8	-15	1.4	11	N/A	7-15/0.1	N/A
SAC1166	PA	5.4~5.8	36	±1.5	N/A	-14	-11	36	N/A	8/1.5	N/A
SAC1167	PA	13.75~14.5	26	±2.0	N/A	-11	-10	35.5	N/A	7/1.3	N/A
SAC1168	LNA	0.0007~0.5	37	±0.5	1.2	N/A	N/A	7	N/A	15/0.045	48.8×26.9×15.4
SAC1173	PA	22~26	29	N/A	7.5	-14	-7.5	32	N/A	28/2	N/A
SAC1174	PA	22~26	29	N/A	8	-14	-14	35	N/A	28/2	N/A
SAC1176	LNA	6~18	38	±1.0	2	N/A	N/A	14	N/A	12/0.11	17.8×20×8.35
SAC1177	DA	18~40	33	±2.0	7	-12	-14	24	N/A	12/0.31	40×40×20
SAC1179	PA	27.5~30	23	±1.0	6	1.5	2	34.5	N/A	5~6.5/3	N/A
SAC1189K	LNA	7.9~8.4	44	±0.2	1.4	N/A	N/A	18	N/A	12/0.19	155.5×47.8×36
SAC1191	PA	0.8~4.1	25	N/A	N/A	1.4	1.4	31.5	N/A	15/0.7	N/A
SAC1192	LNA	0.8~4.1	35	N/A	0.9	N/A	N/A	12	N/A	8~15/0.2	N/A
SAC1197	LNA	26.5~40	38	N/A	3.3	N/A	N/A	13	N/A	12~15/0.15	61.6×19×14.7
SAC1198	LNA	18~26.5	38	±1.0	2.9	N/A	N/A	13	N/A	12~15/0.11	45×22.4×22.4
SAC1202	PA	1.1~1.6	39	±1.5	N/A	1.5	1.8	38	N/A	22~26/0.71	52.9×32×10
SAC1203	PA	2.4~2.5	21	±1.5	N/A	1.5	1.8	40	N/A	22~26/0.8	52.9×32×10
SAC1209	LNA	0.9~6	16	±1.5	1.5	2	2	17	N/A	28/0.12	55×43×25
SAC1210	LNA	5~6	35	N/A	1	N/A	N/A	10	N/A	8~15/0.15	52.9×32×10
SAC1215A	LNA	8~10	47	N/A	2.3	N/A	N/A	15	N/A	8~15/0.25	N/A
SAC1216A	LNA	9~10	13	N/A	2	N/A	N/A	11	N/A	8~15/0.2	N/A
SAC1217	LNA	9.5~10.5	45	N/A	1.5	N/A	N/A	15	N/A	8~15/0.2	N/A
SAC1224	LNA	0.02~6	25	N/A	1	N/A	N/A	17	N/A	8~15/0.15	N/A
SAC1226	LNA	4.61~5.01	35	N/A	1	N/A	N/A	14	N/A	8~15/0.12	N/A
SAC1227	LNA	2.2~2.5	47	N/A	0.45	N/A	N/A	20	N/A	12~24/0.25	N/A
SAC1230	PA	2~6	40	N/A	N/A	2.0	2.5	37	N/A	12~15/0.27	N/A
SAC1231	LNA	2~18	35	N/A	2.5	N/A	N/A	10	N/A	12~15/0.15	N/A
SAC1232	LNA	18~26	35	N/A	2.5	N/A	N/A	10	N/A	12~15/0.18	N/A
SAC1233	LNA	26~40	35	N/A	N/A	N/A	N/A	10	N/A	12~15/0.15	48.8×26.9×15.4
SAC1234	LNA	4~18	35	N/A	2.5	N/A	N/A	10	N/A	12~15/0.15	N/A
SAC1235	LNA	37.5 ~40.5	40	±1.0	2.7	N/A	N/A	11	N/A	12~15/0.15	N/A
SAC1236	LNA	1.315 ~1.515	35	N/A	0.4	N/A	N/A	14	N/A	8~15/0.15	N/A
SAC1237	PA	1.1~1.6	39	±1.5	N/A	1.5	1.8	38	N/A	22~26/0.71	N/A
SAC1238	LNA	4.4~5	46	N/A	0.7	N/A	N/A	18	N/A	8~20/0.18	N/A

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SAC1239	PA	2.4~2.5	21	±1.5	N/A	1.5	1.8	40	N/A	22~26/0.8	N/A
SAC1241	LNA	0.1~6	16	N/A	2.5	N/A	N/A	15	N/A	12/0.3	N/A
SAC1242	LNA	0.1~6	21	N/A	1	N/A	N/A	15	N/A	8~12/0.1	N/A
SAC1243	LNA	9.3~9.6	27	±1.5	N/A	1.5	1.5	47	N/A	15/15	N/A
SAC1244	LNA	0.5~20	N/A	1.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SAC1247	LNA	6~18	30	N/A	N/A	N/A	N/A	18	N/A	15/0.4	N/A
SAC1248	LNA	0.4~6	30	N/A	N/A	N/A	N/A	20	N/A	15/0.25	N/A
SAC1249	DA	0.9~8	25	±1.5	2	N/A	N/A	29	N/A	12~28/1	N/A
SAC1251	PA	1~2	40	N/A	N/A	1.5	1.5	N/A	N/A	N/A	N/A
SAC1252A	LNA	5.4~5.9	28	±0.1	0.8	N/A	N/A	15	N/A	8/0.063	17.8×20×10.0
SAC1253	LNA	0.45~0.55	50	N/A	0.8	N/A	N/A	N/A	N/A	12/0.21	25.4×34×5.5
SAC1254	LNA	12~18	20	±1.0	N/A	N/A	N/A	N/A	N/A	5/0.065	N/A
SAC1256	PA	14.5~15.5	20	±1.0	N/A	1.5	2.0	38	N/A	8/4	N/A
SAC1258	LNA	0.05~1.5	36	±1.0	1	N/A	N/A	16	N/A	5/0.18	N/A
SAC1259	DA	0.5~1.5	N/A	±1.5	4	N/A	N/A	30	N/A	15~28/0.3	N/A
SAC1260	PA	2.7~3.3	30	±1.5	N/A	1.7	2	N/A	N/A	12~15/1.5	N/A
SAC1261	LNA	10~18	35	N/A	2	N/A	N/A	25	N/A	12~15/0.4	N/A
SAC1262	LNA	24~30	35	N/A	2	N/A	N/A	25	N/A	12~15/0.4	N/A
SAC1263	SP3T	6~18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	+5V/-5V/0.085	N/A
SAC1264	LNA	0.5~4	47	±1.5	1	N/A	N/A	27	N/A	12/0.3	N/A
SAC1266	PA	1~2.5	36	±1.5	N/A	1.7	1.7	33	N/A	14~16/0.6	N/A
SAC1270	LNA	5~7	35	±1.0	1	N/A	N/A	10	N/A	8~15/0.15	N/A
SAC1271	SP2T	2~18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SAC1272	SP2T	2~18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SAC1273	SPST	1~6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SAC1274	SP16T	1~6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SAC1276	PA	9~12.5	N/A	±1.5	N/A	1.7	2.2	33	N/A	12~15/2	N/A
SAC1277	LNA	4.4~5	50	±1.5	0.6	N/A	N/A	11	N/A	12~15 /0.12	N/A
SAC1278	LNA	18~40	35	±2.0	4	N/A	N/A	10	N/A	12~15 /0.21	N/A
SAC1281	LNA	2~18	15	N/A	N/A	N/A	N/A	10	N/A	12~15 /0.06	N/A
SAC1282	LNA	2~18	30	N/A	2	N/A	N/A	10	N/A	14~17/0.17	N/A
SAC1283	LNA	2~18	25	±2.0	6.5	N/A	N/A	27	N/A	14~17 /0.45	N/A
SAC1284	LNA	0.7~2.7	30	±1.0	2.5	N/A	N/A	25	N/A	12/0.2	N/A
SAC1285	LNA	0.7~2.7	35	±1.0	N/A	N/A	N/A	15	N/A	12/0.12	N/A
SAC1288	LNA	1~6	35	±1.0	1.5	N/A	N/A	24	N/A	8/0.2	N/A
SAC1290	LNA	0.02~2	30	±2.0	2	N/A	N/A	15	N/A	8~15/0.18	N/A
SAC1291	LNA	8.9~9.5	22	±0.75	1	N/A	N/A	12	N/A	8~12/0.1	N/A
SAC1293	PA	2~4	36	±1.5	N/A	N/A	N/A	30	N/A	18~32/1	52.9×32.0×10.0
SAC1294	LNA	0.4~0.9	30	N/A	1	N/A	N/A	16	N/A	8~15/0.12	N/A
SAC1295	PA	14~16	37	±1.5	N/A	N/A	N/A	33	N/A	18~32/1	52.9×32.0×10.0

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Part Number	Type	Freq	Gain	Gain Flatness (dB)	Noise Figure	Input Return Loss	Output Return Loss	Output P-1dB (dBm)	Reverse Isolation	Power Supply (V/A)	Size (mm)
SAC1296	DA	13.2~16	25	±1.0	1.5	N/A	N/A	22	N/A	15/0.2	N/A
SAC1297	LNA	0.5~10	45	±2.0	4	N/A	N/A	24	N/A	14~17 /0.45	N/A
SAC1299	LNA	2~6	32	±1.0	1.2	N/A	N/A	20	N/A	10~15 /0.15	N/A
SAC1300	LNA	8~8.5	52	N/A	1	N/A	N/A	5	N/A	12/0.6	N/A
SAC1301	LNA	1.558 ~1.592	55	±0.5	1.5	N/A	N/A	15	N/A	12~15 /0.11	N/A
SAC1305	DA	2~4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SAC1306	DA	2~4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SAC1308	LNA	0.01~0.6	31.5	±1.0	0.5	N/A	N/A	19	N/A	12~15 /0.13	N/A
SAC1309	LNA	22~31	35	±2.0	2.5	N/A	N/A	10	N/A	12~15 /0.13	N/A
SAC1310	DA	2~40	30	±0.75	6	N/A	N/A	10	N/A	9~12/0.4	N/A
SAC1311	LNA	0.8~3	36	±1.0	1	N/A	N/A	10	N/A	7~15/0.2	N/A
SAC1312	LNA	0.05~10	21	±1.5	1.5	N/A	N/A	10	N/A	8~12/0.15	N/A
SAC1313	LNA	8~12	45	N/A	1	N/A	N/A	10	N/A	8~15/0.1	N/A
SAC1314	DA	18~40	40	±1.5	7.5	N/A	N/A	26	N/A	8/0.65	N/A
SAC1315	SPST	6~12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	+5V/-5V/0.08	N/A
SAC1316	SP2T	6~12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	+5V/-5V/0.08	N/A
SAC1318	LNA	0.9~1.2	33.5	±0.5	0.5	N/A	N/A	10	N/A	8~15/0.08	N/A
SAC1321	LNA	1.56542 ~1.58542	48	±1.0	1.5	N/A	N/A	15	N/A	8~12/0.15	N/A
SAC1322	PA	4~6	37	±1.5	N/A	N/A	N/A	35	N/A	12~15/2.5	N/A
SAC1323	LNA	0.05~0.15	30	N/A	0.5	N/A	N/A	22	N/A	12~15 /0.17	N/A
SAC1324	LNA	0.5~5	63	±1.75	2.5	N/A	N/A	16	N/A	12~15 /0.27	N/A
SAC1326	LNA	6~18	50	±3.0	2	N/A	N/A	19	N/A	12~15 /0.95	N/A
SAC1327	LNA	0.0001~1	60	±1.5	2	N/A	N/A	14	N/A	12~15 /0.23	N/A
SAC1328	LNA	1.69~1.71	48	±1.0	0.6	N/A	N/A	14	N/A	24/0.17	N/A
SAC1329	LNA	10~20	30	±2.0	3.5	N/A	N/A	20	N/A	10~15 /0.26	N/A
SAC1330	LNA	6~18	42	±3.0	2	N/A	N/A	29	N/A	12~15 /0.95	N/A
SAC1331	LNA	1~10	15	±2.0	1.5	N/A	N/A	25	N/A	14~17 /0.35	N/A
SAC1332	LNA	8~12	35	±1.5	N/A	N/A	N/A	31	N/A	12~18/1	N/A
SAC1333	LNA	8~14	25	±1.5	6	N/A	N/A	21	N/A	8~18/0.25	N/A
SAC1334	LNA	8~13	35	±1.5	2.5	N/A	N/A	14	N/A	8~18/0.14	N/A
SAC1335	LNA	6~18	38	±2.0	2	N/A	N/A	22	N/A	8~16/0.4	N/A
SAC1336	LNA	2~4	26	±1.5	1.8	N/A	N/A	5	N/A	12~16/0.1	N/A
SAC1337-R0	LNA	1.1~1.8	31	±0.5	0.7	N/A	N/A	10	N/A	16/0.1	21.8x17.8x8.3
SAC1338	PA	8.5~9.5	15	±1.5	N/A	2.0	N/A	41.5	N/A	-VSS:-5V(0.1A) +VDD:+8.5V(8A)	N/A
SAC1339	LNA	0.1~3	30	±1.0	1.2	N/A	N/A	18	N/A	8~15/0.12	N/A
SAC1340	LNA	6~20	20	±2.0	3	N/A	N/A	28	N/A	14~17/0.45	N/A
SAC1357	LNA	9.4~10	33	±1.0	1.2	-14	-14	12	N/A	8~16/0.15	48.8x70x32
SAC1358	LNA	8.9~9.5	25	±0.75	1.2	-14	-14	10	N/A	8~15/0.12	16.3x17.8x7.4
SAC1360	DA	18~40	33	±1.75	4	-12	-12	22	N/A	8~15/0.85	30.5x30.5x12.7

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SAC1380	LNA	8~12	33	±1.0	1	-12	-12	22	N/A	8~15/0.08	11.5x17.8x8.3
SAC1405	LNA	0.21~0.515	38	±1.0	0.5	1.5	1.7	17	N/A	7~15/0.15	16.3×17.8×7.3
SAC1406	LNA	0.485~1.015	38	±1.0	0.5	1.5	1.7	17	N/A	7~15/0.15	21.8×17.8×7.3
SAC1407	LNA	0.985~2.150	38	±1.0	0.5	1.5	1.7	12	N/A	7~15/0.12	21.8×17.8×7.3
SAC1408	LNA	1.985~4.250	42	±1.0	0.6	1.5	1.7	14	N/A	7~15/0.1	21.8×17.8×7.3
SAC1409	LNA	3.750~8.250	42	±1.0	1.0	1.5	1.7	13	N/A	7~15/0.15	16.3×17.8×7.3
SAC1412	LNA	0.410~0.46	30	±1.5	N/A	1.5	1.2	40	N/A	28/2	82×53×17
SAC1416	LNA	1~26	27	±2.0	3.6	1.7	1.7	13	N/A	15/0.2	40×20×9
SAC1417	LNA	0.1~18	15	±2.0	5	1.7	1.7	20	N/A	12~17/0.2	30.5×30.5×12.7
SAC1423	LNA	0.5~50	33	±4.0	7.5	N/A	N/A	12	N/A	12~17/0.5	N/A
SAC1427	LNA	8~18	26	±1.5	4	1.6	1.6	N/A	N/A	12~15/0.2	30.5×30.5×12.7
SAC1428	LNA	2~18	37	±2.0	1.8	1.6	1.6	N/A	N/A	8~15/0.15	40.82×16.87×8.13
SAC1429	LNA	0.7~2.6	35	±1.0	0.8	1.5	1.5	N/A	N/A	8~15/0.16	55×43×25
SAC1435	LNA	0.02~12.5	20	±2.0	1.5	N/A	N/A	12	N/A	8~15/0.08	12.6×17.78×7.87
SAC1452	DA	2~40	30	±3.0	N/A	N/A	N/A	5	N/A	8~17/0.4	34.8×24.9×11.36
SAC1478	DA	8-12	30	±1.0	2	1.8	1.8	26	N/A	12/0.37	40×20×9

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