



METDA

Semiconductors

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Introduction

Shijiazhuang METDA Electronic Technology Corporation (METDA) was established in 1993, there is more than 300 staff in the company, and it is the sub-company of HSRI (Hebei Semiconductor Research Institute). HSRI was founded in 1956 in Beijing and then moved to Shijiazhuang in 1963. After 60 years of development, it has become China's most comprehensive semiconductor institute with large scale, strong technical force and professional structure. The professional directions are in five main areas of microelectronics, optoelectronics, MEMS, high-end semiconductor sensors, optical electromechanical integrated micro-system and in other basic supporting areas such as electronic package and material, measurement and detection. It is the first batch of master of engineering admissions training units and joint training doctoral units after reforming and opening up in China.

METDA has three sub-companies: North-China Integrated Circuit Corporation Limited, Hebei Century Star Electronic Science Corporation Limited, Beijing Micro Electronic Development Corporation Limited. METDA has three major product areas which cover microelectronics, optoelectronics, software development. METDA's major markets cover domestic, Europe, Asia, the Americas and other countries and regions. Currently METDA is one of the most comprehensive semiconductor companies with large-scale civilian products industry and foreign trade in optoelectronics, microwave, software in China.

Optoelectronic products are mainly for the full range of optical products which include photovoltaic chip, photoelectric module, supporting packages and so on. Microwave products include MMIC, devices, modules, components, micro-systems and other products. METDA also actively expands business scope. The company owns a property services company, a mineral water sales company and other emerging growth point outside the main business.

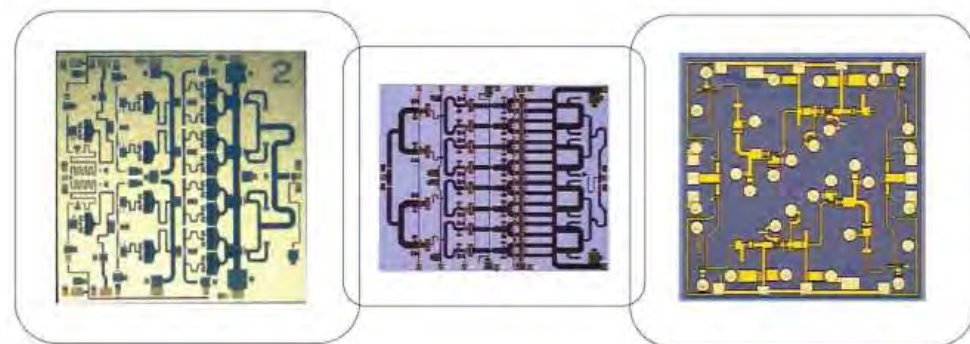
In 2016, METDA sales total values reached 700 million RMB. In 2017, the sales total values exceeded 800 million RMB, and the planning economic scale will reach 2 billion RMB at the end of 2020. With the strong supporting of all the customers, all the METDA people will work together, work hard, continue to vigorously carry forward the fine traditions and work style and make greater contributions to China's semiconductor industry!

1 GaN Power Amplifier MMIC

Part Number	Feature	Frequency (GHz)	Psat (dBm)	Power Gain (dB)	Gain Flatness (dB)	PAE (%)	VSWRin	Quiescent Current (mA)	Operating Voltage (V)	Chip Size (mm×mm×mm)
NC11687C-0320P10		0.35-2.0	40	15	-	30	2.5	-	28	3.40×1.70×0.08
NC11675C-0820P10		0.8-2.0	40	27	±1.5	40	2	500	28	1.50×1.30×0.10
NC11636C-1924		1.9-2.4	26.2	20	±1.0	20	1.5	75	28	2.50×2.60×0.10
NC116122C-204P30		2-4	45	18	±0.5	40	2.5	2200	28-32	3.50×4.20×0.10
NC11651C-218P8		2-18	≥39	7	±1.0	≥20	2	880	28	2.50×4.85×0.10
NC11647C-218P2		2-18	34	7	≤±1.7	15	2	500	28	2.80×2.50×0.10
NC11688C-218P10		2-18	40	15	-	20	2.5	-	28	5.00×3.50×0.08
NC11690C-2128P10		2.1-2.8	40	27	±0.5	50	2	500	28	2.35×2.70×0.08
NC11648C-2325P8		2.3-2.5	≥39	≥26	≤±0.4	50	1.6	500	28	2.42×2.80×0.10
NC11648C-2325P8M		2.3-2.5	≥39	≥26	≤±0.4	50	1.6	500	28	2.42×2.80×0.10
NC11682C-2562P30		2.5-6.2	45	16	±0.5	30	2.5	2500	28	3.20×5.50×0.08
NC11629C-2735		2.7-3.5	20	10	±1	≥10	1.5	28	28	1.55×1.66×0.10
NC11634C-408P25		4-8	44	22	±1	36	2.4	1500	28	3.55×4.17×0.10
NC11689C-512P40		5-12	46	21	≤±1	30	1.2	2500	28	5.00×5.70×0.08
NC116131C-514P15		5-14	41.5	20	±0.5	38	2	1000	28	3.80×2.00×0.08
NC116112C-514P20		5-14	43	18	±0.5	30	1.6	-	28	4.80×3.00×0.08
NC11669C-618P10		6-18	40	16	±0.5	20	2.5	1400	28	3.40×4.10×0.08
NC116135C-713P25		7-13	44	20	±0.6	35	2	2200	28	3.50×4.20×0.08
NC11604C-812P15		8-12	42	20	±0.4	≥35	≤2.2	400	28	2.60×2.00×0.08
NC11677C-812P1		8-12	30	21	±0.5	20	1.8	100	28	1.92×1.30×0.08
NC11678C-812		8-12	28	17	±0.5	20	1.6	140	28	1.92×1.33×0.10
NC116110C-8510P25		8.5-10.5	44	24	-	48	-	2500	28	2.60×3.10×0.80
NC11619C-812P50		8-12	47	20	≤±0.8	≥40	≤2.0	2500	28	4.70×5.20×0.10
NC116102C-8510P50A		8.5-10.5	47	21	±0.5	45	2	2000	28	4.00×5.10×0.08
NC116123C-915P20		9-15	42	21	±0.75	32	2	1000	28	2.50×3.50×0.10
NC11670C-1018		10-18	27	14	±1.5	13	2.0	170	28	1.78×1.44×0.10
NC11656C-1018		10-18	26	14	±2	-	2	160	28	1.90×1.33×0.10
NC11661C-1018		10-18	27	17	±1.5	12	2	190	28	2.18×1.32×0.10
NC11635C-1018P22		10-18	44	18	±1.5	25	2	2000	28	3.00×3.20×0.10
NC116129C-1315P35		13-15	45.5	22	±0.3	33	2	-	28	5.00×6.65×0.08
NC11680C-1415P25		14-15	44	21	±1.5	30	2.5	2000	28	3.40×4.10×0.10
NC11691C-1416P50		14-16	47	21	±0.4	30	2.5	3000	32	3.50×5.00×0.08
NC11630C-1418P15		14-18	42	18	±0.5	37	2.5	600	28	3.00×2.10×0.08
NC11663C-1418		14-18	26	21	±1	11	2	190	28	2.18×1.32×0.10
NC11681C-1518P50		14.5-18	47	20	±0.4	35	2.5	3000	32	3.50×5.00×0.08
NC116106C-1517P9		15-17	39.5	20	±0.3	37	-	120	28	2.30×1.50×0.10
NC116107C-1618P9		16-18	39.5	21	±0.3	36	2	200	28	2.30×1.50×0.10
NC11613C-1618P30		15.5-18	45	20	≤±0.5	33	≤2.5	2500	28	3.60×3.50×0.10
NC116105C-1826P7		18-26	38.5	11	±1.5	18	-	-	22	3.20×2.70×0.10
NC116103C-1921P20		19-21	43	18	±0.5	20	2.5	1500	28	3.50×4.10×0.80
NC116119C-3238P2		32-38	32	18	±0.5	20	2.5	300	22	3.11×1.21×0.10

2 GaN Pre-Matched Transistors

Part Number	Feature	Frequency (GHz)	Psat (dBm)	Power Gain (dB)	Gain Flatness (dB)	PAE (%)	VSWRin	Quiescent Current (mA)	Operating Voltage (V)	Chip Size (mm×mm×mm)
NC11696C-3238P12		32-38	41	13	±1.5	20	2.5	2000	22	4.67×4.42×0.10
NC11673C-3240P1		32-40	30	18	±1	20	2.0	200	22	3.14×1.25×0.10
NC11674C-3337P10		33-37	40	14	±2	20	2.5	2400	22	5.09×4.52×0.10
NC11672C-3436P15A		34-36	41.8	13.8	±0.75	20	2.5	2500	22	4.95×4.45×0.10
NC116109C-3436P20		34-36	43	14	±1.5	25	2	3500	22	5.37×4.36×0.10
NC11686C-9096P1		88-96	30	11	±1	15	2	350	15-18	3.30×1.50×0.05
NC11652C-9096		90-96	≥20.5	≥9	±1	13	3	70	12-15	3.58×1.50×0.05
NC116104C-9096		90-96	25	-	±0.5	17	2.5	100	15	3.20×1.40×0.05
NC11697C-9096P2		90-96	34	8	±1	12	2	1000	18	3.37×3.53×0.05
BW1180		0.2~1.8	38	11	-	54	-	380	28	2.30×1.60×0.08
BW1167		0.2~2.2	39.5	10	-	40	-	650	28	2.70×1.60×0.08
BW1194		1.2~1.6	40	19	-	50	-	800	28	3.00×2.10×0.08
BW258		2.7~3.5	43	21	-	45	-	1800	28	3.30×2.24×0.08
BW259		2.7~3.5	41	21	-	48	-	1100	28	2.94×2.24×0.08
BW1193		2.7~3.5	40	24	-	40	-	900	28	2.90×2.20×0.08
BW1172		4.2~5	+45	23	-	50	-	2400	28	3.60×3.85×0.08
BW1195		4.4~5.1	40	19	-	48	-	900	28	2.80×2.00×0.08
BW1168		4.4~6	+44.5	20.5	-	47	-	2200	28	2.85×3.50×0.08
BW252		4.4~6.0	43	22	-	48	-	1700	28	3.00×2.24×0.08
BW1179		4.5~7.5	+39	19	-	42	-	800	28	3.30×1.50×0.08
BW1198		5.0~6.0	40.5	20.5	-	47	-	900	28	2.80×2.00×0.08
BW251		5.0~6.5	36	22	-	48	-	3500	28	1.70×1.40×0.08
BW251		5~6.5	+36	22	-	48	-	3500	28	1.70×1.40×0.08
BW1196		7.0~9.0	41	21	-	44	-	1100	28	3.00×2.00×0.08
BW1165		7~13	+45	23	-	36	-	2500	28	3.95×3.80×0.08
BW253		8.0~12.0	43	21	-	40	-	1900	28	3.00×2.00×0.08
BW1164		8~12	+44	22	-	40	-	1000	28	3.35×3.50×0.08
BW254		14.5~17.0	42	20	-	34	-	1700	28	3.00×2.00×0.08
BW1187		13.5~17.5	44	20	-	36	-	2800	28	3.30×3.65×0.08
BW255		14.0~18.0	42	20	-	36	-	1800	28	3.00×2.00×0.08
BW248		19.0~21.0	40	15	-	29	-	1200	28	2.80×2.00×0.08



Part Number	Feature	Frequency (GHz)	Psat	PAE (%)	Power Gain (dB)	Operating Voltage (V)	Typical Operating Condition	Package
NC43117S-0102P500		0.136-0.267	56.7	17	70	48	Pulse Width: 800µs Duty Cycle: 20%	PG1031F
NC43113S-0102P900		0.137-0.267	59.5	17	70	48	Pulse Width: 600µs Duty Cycle: 20%	PG1031F
NC4383S-0102P400		0.137-0.270	≥56	≥16	70	36-42	Pulse Width: 300µs Duty Cycle: 20%	PG1031F
NC4333S-0304P150		0.35-0.45	51.76	≥17	≥65	50	Pulse Width: 300µs Duty Cycle: 15%	QF0714-2
NC4334S-0304P1300		0.35-0.45	61.14	≥17	≥65	50	Pulse Width: 300µs Duty Cycle: 15%	PG1031F
NC43107S-0407P600		0.38-0.7	57.8	16	60	50	Pulse Width: 500µs Duty Cycle: 10%	PG1031F
NC4351S-0405P1500		0.41-0.485	≥61.76	≥15	≥65	50	Pulse Width: 300µs Duty Cycle: 10%	PG1031F
NC4313S-04P680		0.42-0.48	58.5	≥17	65	50	Pulse Width: 300µs Duty Cycle: 10%	PG1031F
NC4314S-04P1200		0.42-0.48	61	≥17	65	50	Pulse Width: 300µs Duty Cycle: 10%	PG1031F
NC4348S-0506P600		0.48-0.61	≥57.8	≥15	≥65	50	Pulse Width: 3ms Duty Cycle: 30%	PG1031F
NC41626S-102P80		0.9-2	48	10	30	28	Pulse Width: 30µs Duty Cycle: 30%	QF1034-2A
NC4303S-0911P120		0.9-1.2	51	16	60	36	Pulse Width: 40µs Duty Cycle: 5%	QF051A
NC43128S-0920P80		0.9-2.0	49	12	40	30	Pulse Width: 100µs Duty Cycle: 40%	QF1034-2A
NC4376S-0912P250		0.96-1.25	54	14	55	36	CW	QF0713-2C
NC4320S-0912P650		0.96-1.215	58.13	15	65	50	Pulse Width: 100µs Duty Cycle: 10%	QF0713-2B
NC4321S-0912P350		0.96-1.215	55.45	15	65	50	Pulse Width: 100µs Duty Cycle: 10%	QF0713-2B
NC4329S-0912P800		0.96-1.215	59	16	65	50	Pulse Width: 100µs Duty Cycle: 1%	QF0713-2B
NC4330S-0912P250		0.96-1.25	54	14	55	50	CW	QF0713-2
NC4374S-1011P1200		1.0-1.1	60.8	15	60	50	Pulse Width: 30µs Duty Cycle: 1%	QF0713-2B
NC4386S-1011P1400		1.0-1.1	61.4	16	60	50	Pulse Width: 50µs Duty Cycle: 4%	QF0713-2
NC41641S-102P100		1-2	50	11	40	36	Pulse Width: 1ms Duty Cycle: 30%	QF1034-2A
NC4381S-1112P100		1.1-1.2	50	16	65	48	Pulse Width: 300µs Duty Cycle: 20%	QF0307-2

Part Number	Feature	Frequency (GHz)	Psat	PAE (%)	Power Gain (dB)	Operating Voltage (V)	Typical Operating Condition	Package
NC4382S-1112P600		1.1-1.2	57.8	15	65	48	Pulse Width: 300µs Duty Cycle: 20%	QF0713-2B
NC41640S-1114P90		1.1-1.4	49.5	14	50	28	Pulse Width: 300µs Duty Cycle: 10%	QF051B
NC43136S-1115P200		1.1-1.5	53	14	65	28	CW	QF0713-2C
NC4316S-1116P150		1.1-1.7	52	14	60	36	CW	QF0713-2
NC4344S-1213P450		1.2-1.3	56.5	15.5	68	45	Pulse Width: 500µs Duty Cycle: 11%	QF0713-2B
NC43129S-1214P150		1.2-1.4	51.8	14	68	28	Pulse Width: 500µs Duty Cycle: 20%	QF0713-2C
NC4358S-1214P200		1.2-1.4	53	15	58	48	Pulse Width: 500µs Duty Cycle: 20%	QF0713-2B
NC4399S-1214P300		1.2-1.4	54.8	15	65	48	Pulse Width: 5µs Duty Cycle: 30%	QF0713-2B
NC4308S-1214P400		1.2-1.4	56	15	65	50	Pulse Width: 300µs Duty Cycle: 10%	QF0713-2
NC4309S-1214P500		1.2-1.4	57	15	65	50	Pulse Width: 300µs Duty Cycle: 10%	QF0713-2
NC4331S-1214P550		1.2-1.4	57.4	15	65	50	Pulse Width: 300µs Duty Cycle: 20%	QF0713-2B
NC4359S-1214P560		1.2-1.4	57.5	15	65	48	Pulse Width: 500µs Duty Cycle: 20%	QF0713-2B
NC4341S-1214P650		1.2-1.4	58.1	15	65	50	Pulse Width: 300µs Duty Cycle: 10%	QF0713-2B
NC43131S-1215P500		1.2-1.5	57	15	65	50	Pulse Width: 100µs Duty Cycle: 10%	QF0713-2
NC4355S-1213P30		1.25-1.35	44.8	15	60	28	CW	QF051C
NC4311S-1314P380		1.3-1.5	56	15	65	50	Pulse Width: 300µs Duty Cycle: 10%	QF0714-2A
NC4312S-1314P650		1.3-1.5	58	15	65	50	Pulse Width: 300µs Duty Cycle: 10%	QF0714-2A
NC4315S-1516P250		1.4-1.7	54	15	60	42	CW	QF0713-2
NC4347S-1617P50		1.61-1.64	47	14.5	55	28	CW	QF136
NC4306S-1P130		1.2	51	16.3	65	32	CW	QF0713-2
NC4305S-1P130		1.6	51	16.3	65	32	CW	QF0713-2
NC43127S-2028P80		2.0-2.8	49	12	50	30	Pulse Width: 100µs Duty Cycle: 40%	QF1034-2A
NC41614S-2P50		2.3	47	13	60	28	CW	QF051A
NC43126S-2842P70		2.8-4.2	48.5	7	45	30	Pulse Width: 100µs Duty Cycle: 40%	QF1034-2A
NC43137S-3436P110		3.4-3.6	50.4	12	65	48	Pulse Width: 100µs Duty Cycle: 10%	QF238
NC4340S-1317P150		13.8-17.8	51.8	13	60	28	Pulse Width: 20µs Duty Cycle: 30%	QF0713-2

Part Number	Feature	Frequency (GHz)	Psat	PAE (%)	Power Gain (dB)	Operating Voltage (V)	Typical Operating Condition	Package
HEG048N		DC-4	20 W	60%	12	28	Pulse	QF047B
HEG049P		DC-4	50 W	60%	12	28	Pulse	QF051C
HEG227P		0.35-0.4	60 W	70%	13	28	CW	QF051C
HEG828R		0.4-0.5	600 W	70%	17	50	Pulse	PG1031A
HEG829R		0.4-0.5	1000 W	70%	17	50	Pulse	PG1031A
HEG065N		0.48-0.61	15 W	73%	16	48	Pulse	QF047B
HEG064N		0.48-0.61	60 W	73%	16	48	Pulse	QF047B
HEG826R		0.48-0.61	600 W	70%	16	48	Pulse	PG1031A
HEG412N		0.6-0.7	60 W	70%	16	50	CW	QF047B
HEG057N		0.96-1.23	30 W	70%	16	50	CW	QF047B
HEG049N		0.96-1.23	60 W	70%	16	50	CW	QF047B
HEG636M		0.96-1.25	100 W	65%	13	28	Pulse	QF1034-2A
HEG821M		0.96-1.25	200 W	65%	15	48	Pulse	QF1034-2A
HEG820M		0.96-1.23	250 W	70%	16	50	Pulse	QF1034-2A
HEG831M		0.96-1.23	650 W	70%	16	50	Pulse	QF1034-2A
HEG832Q		0.96-1.23	800 W	70%	16	50	Pulse	QF0713-2A
HEG833Q		0.96-1.23	1000 W	70%	16	50	Pulse	QF0713-2A
HEG844Q		0.96-1.23	1500 W	70%	15	50	Pulse	QF0713-2A
HEG819M		1.2-1.4	200 W	65%	14	36	Pulse	QF1034-2A
HEG822M		1.2-1.4	400 W	65%	14	36	Pulse	QF1034-2A
HEG823M		1.2-1.4	500 W	65%	15	48	Pulse	QF1034-2A
HEG816M		1.2-1.4	650 W	65%	15	48	Pulse	QF1034-2A
HEG837Q		1.2-1.5	650 W	65%	15	50	Pulse	QF0713-2A
HEG805M		1.3-1.45	400 W	65%	14	36	Pulse	QF1034-2A
HEG806M		1.3-1.45	500 W	65%	15	50	Pulse	QF1034-2A
HEG807M		1.3-1.45	600 W	65%	15	50	Pulse	QF1034-2A
HEG655Q		1.3-1.8	200 W	60%	14	50	CW	QF0713-2A
HEG619N		1.9-2.1	100 W	65%	15	50	Pulse	QF106B
HEG622P		1.8-2.2	100 W	65%	12	28	Pulse	QF051B
HEG811N		2.3-2.4	250 W	60%	15	50	Pulse	QF106B
HEG838Q		2.4-2.5	250 W	65%	15	50	CW	QF0713-2A

Note: * Typical Value

3 GaN Internally Matched Transistors

Part Number	Feature	Frequency (GHz)	Psat	Gain (dB)	Gain Flatness (dB)	PAE (%)	Operating Voltage (V)	Typical Operating Condition	Package
NC41601S-1112P65		1.14-1.24	48	15	±0.5	60	28	CW	QF136HG
NC41619S-1112P80		1.15-1.23	49	14.5	±0.5	60	28	CW	QF136HG
NC43146S-16P80		1.61-1.62	49	15	±0.3	65	32	CW	QF136
NC4364S-1617P64		1.61-1.64	48	14	±1	60	28	PulseWidth: 200ms Duty Cycle: 20%	QF136
NC4363S-1720P35		1.7-2.0	45.5	14	±1	60	28	PulseWidth: 200ms Duty Cycle: 20%	QF136

Part Number	Feature	Frequency (GHz)	Psat	Gain (dB)	Gain Flatness (dB)	PAE (%)	Operating Voltage (V)	Typical Operating Condition	Package
NC4346S-1720P35		1.7-2	45.5	14.5	±0.5	55	28	CW	QF136HP
NC41637S-1823P10		1.8-2.3	40.5	14.5	±0.5	55	36	CW	QF136HG
NC41612S-1823P20		1.8-2.3	43	13	±0.6	55	28	CW	QF136HG
NC41613S-1823P30		1.8-2.3	44.8	13	±0.6	55	28	CW	QF136HG
NC4307S-1920P15		1.9-2	42	13.5	±0.3	55	28	CW	QF089
NC43109S-1921P100		1.9-2.1	50	13	±0.3	55	48	Pulse Width: 100µs Duty Cycle: 1%	QF136
NC43108S-1921P1500		1.9-2.1	61.8	11.5	±0.3	55	48	Pulse Width: 200ms Duty Cycle: 20%	QF136
NC4346S-1720P35		1.7-2	45.5	14.5	±0.5	55	28	CW	QF136HP
NC41637S-1823P10		1.8-2.3	40.5	14.5	±0.5	55	36	CW	QF136HG
NC41612S-1823P20		1.8-2.3	43	13	±0.6	55	28	CW	QF136HG
NC41613S-1823P30		1.8-2.3	44.8	13	±0.6	55	28	CW	QF136HG
NC4307S-1920P15		1.9-2	42	13.5	±0.3	55	28	CW	QF089
NC43109S-1921P100		1.9-2.1	50	13	±0.3	55	48	Pulse Width: 100µs Duty Cycle: 1%	QF136HP
NC43108S-1921P1500		1.9-2.1	61.8	11.5	±0.3	55	48	Pulse Width: 100µs Duty Cycle: 1%	QF136HP
NC4343S-2223P50		2.2-2.3	47	13	±0.5	55	28	CW	QF136HP
NC4361S-2223P64		2.25-2.3	48	14	±1	60	28	Pulse Width: 200ms Duty Cycle: 20%	QF136
NC43123S-2224P15		2.2-2.4	41.8	11.8	±0.5	60	28	CW	QF136PC
NC4362S-2224P25		2.2-2.4	44	14	±1	60	28	Pulse Width: 200ms Duty Cycle: 20%	QF136
NC43121S-2325P200		2.3-2.5	53	12	±0.6	65	32	Pulse Width: 450µs Duty Cycle: 15%	QF136HP
NC43122S-2325P280		2.3-2.5	54.5	12	±0.6	65	32	Pulse Width: 450µs Duty Cycle: 150%	QF136HP
NC41623S-2325P100		2.3-2.5	50	12	±0.3	50	28	CW	QF136HG
NC43110S-2325P1500		2.3-2.5	61.8	11.5	±0.3	55	48	Pulse Width: 100µs Duty Cycle: 1%	QF136HP
NC4389S-2427P60		2.4-2.7	47.8	13	±0.4	55	28	Pulse Width: 200µs Duty Cycle: 10%	QF92-4A
NC41611S-2731P150		2.7-3.1	51.8	12	±0.5	58	28	Pulse Width: 2ms Duty Cycle: 30%	QF136HP
NC41635S-2731P200		2.7-3.1	53	12.5	±0.5	55	28	Pulse Width: 1ms Duty Cycle: 30%	QF136HP
NC4356S-2731P170		2.7-3.1	52.5	12	±1	60	28	Pulse Width: 3ms Duty Cycle: 30%	QF136HU
NC4366S-2731P120		2.7-3.1	51	12	±0.6	55	28	CW	QF136HP
NC4367S-2731P200		2.7-3.1	53	15	±0.6	60	34	Pulse Width: 300µs Duty Cycle: 10%	QF136HU

Part Number	Feature	Frequency (GHz)	Psat	Gain (dB)	Gain Flatness (dB)	PAE (%)	Operating Voltage (V)	Typical Operating Condition	Package
NC4375S-2731P500		2.7-3.1	57.5	13	±0.6	55	48	Pulse Width: 100µs Duty Cycle: 10%	QF136HP
NC43105S-2735P80		2.7-3.5	49	13	±0.5	60	28	Pulse Width: 500µs Duty Cycle: 20%	QF136HP
NC41604S-2735P100		2.7-3.5	50	12	±0.5	50	28	Pulse Width: 2ms Duty Cycle: 30%	QF136PC
NC41634S-2735P200		2.7-3.5	53	12	±0.5	50	28	Pulse Width: 300µs Duty Cycle: 10%	QF136PC
NC4360S-2735P250		2.7-3.5	54	12	±0.6	60	48	Pulse Width: 500µs Duty Cycle: 20%	QF136HP
NC4357S-2831P70		2.8-3.1	48.5	13	±0.5	55	34	Pulse Width: 300µs Duty Cycle: 10%	QF136GC
NC4338S-2832P200		2.8-3.2	53	12	±0.4	60	28	Pulse Width: 300µs Duty Cycle: 20%	QF136HP
NC4349S-2832P55		2.8-3.2	47.5	11.5	±0.5	50	28	Pulse Width: 400µs Duty Cycle: 20%	QF136GC
NC4377S-3134P280		3.1-3.4	54.5	12	±0.5	60	32	Pulse Width: 450µs Duty Cycle: 15%	QF136HU
NC43145S-3134P400		3.1-3.4	56	13	±0.8	55	48	Pulse Width: 300µs Duty Cycle: 20%	QF136HU
NC41630S-3135P20		3.1-3.5	43	12	±0.2	50	36	Pulse Width: 2ms Duty Cycle: 30%	QF92-4A
NC41636S-3135P200		3.1-3.5	53	12	±0.4	50	28	Pulse Width: 300µs Duty Cycle: 20%	QF136HP
NC41631S-3135P300		3.1-3.5	55	14	±0.4	55	36	Pulse Width: 300µs Duty Cycle: 20%	QF136HP
NC4384S-3742P8		3.7-4.2	39	14	±0.4	55	28	CW	QF92-4A
NC4328S-3742P100		3.7-4.2	50	12	±0.4	55	28	CW	QF136PC
NC43112S-3742P200		3.7-4.2	53	12	±0.4	≥50	28	Pulse Width: 400µs Duty Cycle: 20%	QF136HP
NC4327S-4450P160		4.4-5	52	11	±0.5	50	32	CW	QF136PC
NC41633S-4548P200		4.5-4.8	53	10	±0.25	45	28	Pulse Width: 1ms Duty Cycle: 10%	QF136PC
NC4335S-4549P200		4.5-4.9	53	12	±0.5	55	28	Pulse Width: 300µs Duty Cycle: 20%	QF136PE
NC4350S-4549P55		4.5-4.95	47.5	11.5	±0.5	50	28	Pulse Width: 400µs Duty Cycle: 20%	QF136GC
NC41602S-506P100		5-6	50	12	±0.75	45	28	Pulse Width: 400µs Duty Cycle: 50%	QF136HG
NC4345S-506P250		5-6	54	9	±1	40	40	Pulse Width: 2ms Duty Cycle: 30%	QF136PE

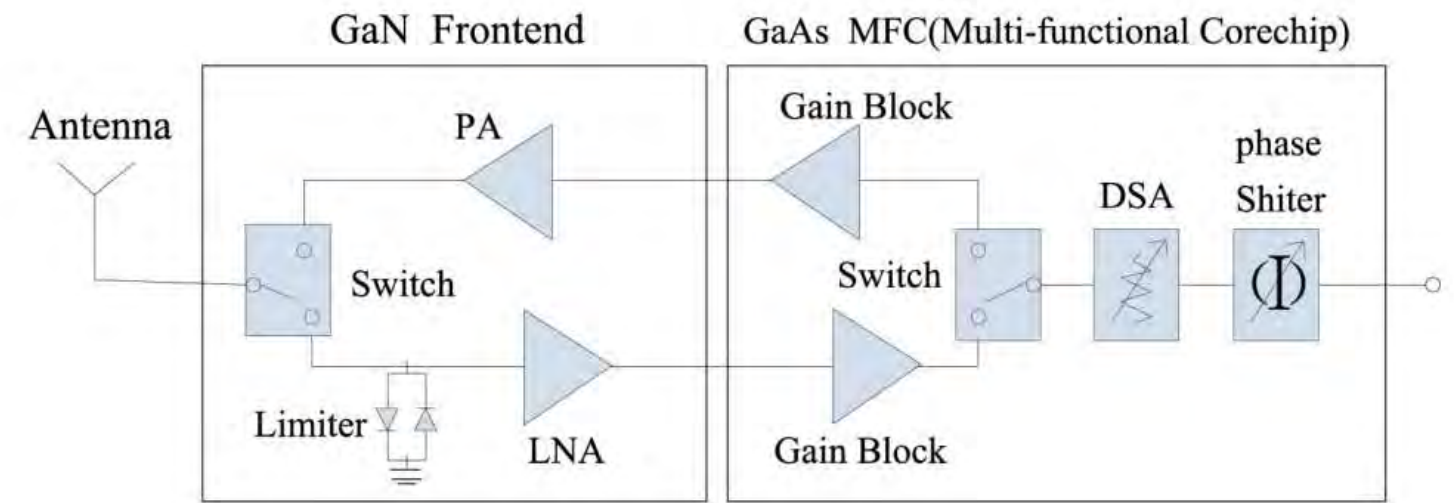
Part Number	Feature	Frequency (GHz)	Psat	Gain (dB)	Gain Flatness (dB)	PAE (%)	Operating Voltage (V)	Typical Operating Condition	Package
NC43133S-5159P300		5.1-5.9	54.7	11.5	±0.5	50	32	Pulse Width: 5µs Duty Cycle: 1%	QF136PE
NC43139S-5258P20		5.2-5.8	43	10	±0.75	45	28	CW	QF136HK
NC43141S-5258P270		5.2-5.8	54.3	10	±0.75	40	48	Pulse Width: 450µs Duty Cycle: 30%	QF136PE
NC4317S-5359P160		5.3-5.9	52	12	±0.5	50	28	Pulse Width: 40ms Duty Cycle: 50%	QF136PC
NC4322S-5359P250		5.3-5.9	54	11	±0.5	50	40	Pulse Width: 2ms Duty Cycle: 30%	QF136PC
NC4380S-5359P90		5.3-5.9	49.5	11	±1	50	28	Pulse Width: 300µs Duty Cycle: 20%	QF136PE
NC4379S-5359P160		5.3-5.9	52	12	±0.5	50	28	Pulse Width: 300µs Duty Cycle: 20%	QF136PE
NC4353S-5359P200		5.3-5.9	53	12	±1	50	28	Pulse Width: 300µs Duty Cycle: 20%	QF136PE
NC4387S-5767P40		5.7-6.7	46	10	±0.75	45	28	CW	QF136HK
NC4369S-5967P25		5.9-6.7	44	9	±1	45	28	CW	QF136HK
NC4388S-5967P25		5.9-6.7	44	10	±0.75	45	28	CW	QF136HK
NC4323S-5967P100		5.9-6.7	50	8.5	±1	50	28	Pulse Width: 10µs Duty Cycle: 30%	QF136PC
NC4310S-6472P18		6.4-7.2	42.5	12.5	±0.5	40	28	CW	QF92B
NC43118S-6472P100		6.4-7.2	50	10	±0.75	40	28	CW	QF136PE
NC41639S-6472P150		6.4-7.2	51.8	10.8	±0.5	45	28	Pulse Width: 400µs Duty Cycle: 30%	QF136PC
NC43101S-6472P300		6.4-7.2	54.8	10	±0.4	45	36	Pulse Width: 200µs Duty Cycle: 20%	QF136PC
NC43103S-7074P300		7.0-7.4	54.8	10	±0.3	42	36	Pulse Width: 200µs Duty Cycle: 20%	QF136PC
NC43132S-7785P100		7.7-8.5	50	9	±0.5	45	28	Pulse Width: 2000µs Duty Cycle: 20%	QF136PE
NC43134S-7983P20		7.9-8.3	43	8	±0.5	50	24	CW	QF136HK
NC4339S-7893P300		7.8-9.3	54.7	8	±0.5	45	50	Pulse Width: 100µs Duty Cycle: 1%	QF136PE
NC4397S-7893P2000		7.8-9.3	63	9	±0.5	45	60	Pulse Width: 1µs Duty Cycle: 10%	QF136PE
NC4397S-7893P2000M		7.8-9.3	63	9	±0.5	45	60	Pulse Width: 1µs Duty Cycle: 10%	QF136PE
NC41627S-809P150		8-9	51.8	8.5	±0.5	40	32	Pulse Width: 1ms Duty Cycle: 35%	QF136PC
NC4392S-8695P100		8.6-9.5	50	8.5	±0.5	40	28	Pulse Width: 300µs Duty Cycle: 20%	QF136PC

Part Number	Feature	Frequency (GHz)	Psat	Gain (dB)	Gain Flatness (dB)	PAE (%)	Operating Voltage (V)	Typical Operating Condition	Package
NC43115S-8596P250		8.5-9.6	54	9	±0.6	40	40	Pulse Width: 300µs Duty Cycle: 20%	QF136PE
NC43135S-910P200		9-10	53	8	±0.6	38	36	Pulse Width: 3000µs Duty Cycle: 20%	QF136PE
NC43114S-910P250		9-10	54	9	±0.6	40	40	Pulse Width: 300µs Duty Cycle: 20%	QF136PE
NC41610S-910P100		9-10	50	8	±0.5	37	28	Pulse Width: 1ms Duty Cycle: 35%	QF136PC
NC41620S-910P130		9-10	51	8	±0.5	36	28	Pulse Width: 1ms Duty Cycle: 35%	QF136PC
NC41628S-910P150		9-10	51.8	8.5	±0.5	38	32	Pulse Width: 1ms Duty Cycle: 30%	QF136PC
NC4326S-910P170		9-10	52.4	8.5	±0.5	37	32	Pulse Width: 500µs Duty Cycle: 30%	QF136PC
NC4325S-9398P50		9.3-9.8	47	9	±0.5	38	28	Pulse Width: 100µs Duty Cycle: 10%	QF136PC
NC4301S-9510P100		9.5-10.5	50	7	±0.5	32	32	CW	QF136PC
NC4336S-9096P50		9-9.6	47	8.5	±0.5	37	28-32	Pulse Width: 400µs Duty Cycle: 30%	QF136PC
NC43138S-1011P1000		10-10.8	60	7	±1	50	50	Pulse Width: 15µs Duty Cycle: 2%	QF136PE
NC4324S-1415P100		14-14.5	50	6	±0.5	25	40	Pulse Width: 10µs Duty Cycle: 1%	QF136PC
HEG234A-1		0.425-0.475	50 W	27	-	60%	50	Pulse	Substrate
HEG234A-2		0.425-0.475	50 W	27	-	60%	50	Pulse	Substrate
HEG229A		1.2-1.4	60 W	23	-	65%	28	Pulse	Substrate
HEG224A		1.2-1.4	70 W	22	-	65%	28	Pulse	Substrate
HEG223A		1.31-1.45	80 W	29	-	55%	50	Pulse	Substrate
HEG214A		1.31-1.45	50 W	25	-	55%	28	Pulse	Substrate
HEG122A		2.0-2.1	12 W	12	-	60%	28	CW	Substrate
HEG031A-1		2.2-2.4	20 W	12	-	60%	28	CW	Substrate
HEG067A		2.7-3.1	30 W	23.5	-	50%	48	Pulse	Substrate
HEG099A		2.7-3.5	40 W	25	-	50%	48	Pulse	Substrate
HEG400A4		3.1-3.4	80 W	12	-	65%	32	Pulse	Substrate
HEG400A3		2.7-3.5	80 W	12	-	58%	32	Pulse	Substrate
HEG212A-2		2.7-3.5	70 W	10	-	60%	28	Pulse	Substrate
HEG604A		2.7-3.5	110 W	11	-	55%	32	Pulse	Substrate
HEG400A5		2.7-3.5	130 W	11	-	55%	32	Pulse	Substrate
HEG631A		2.7-3.5	130 W	13	-	55%	48	Pulse	Substrate
HEG611A		2.7-3.5	130 W	11	-	55%	32	Pulse	Substrate
HEG648A		2.7-3.5	160 W	13	-	55%	48	Pulse	Substrate
HEG605A		2.7-3.5	200 W	10	-	50%	28	Pulse	Substrate
HEG817A		2.7-3.5	230 W	13	-	55%	48	Pulse	Substrate

Part Number	Feature	Frequency (GHz)	Psat	Gain (dB)	Gain Flatness (dB)	PAE (%)	Operating Voltage (V)	Typical Operating Condition	Package
HEG818A		2.7-3.5	220 W	12	-	50%	48	Pulse	Substrate
HEG827A		2.7-3.1	250 W	13	-	55%	48	Pulse	Substrate
HEG225A		4.4-5.0	60 W	10	-	55%	28	Pulse	Substrate
HEG005A		5.2-5.9	30 W	10	-	50%	28	CW	Substrate
HEG070A		5.2-5.9	50 W	26	-	55%	28	Pulse	Substrate
HEG408A		5.2-5.9	80 W	26	-	50%	28	Pulse	Substrate
HEG835A		5.2-5.9	200 W	26	-	50%	28	Pulse	Substrate
HEG024A		7.5-8.5	25 W	25	-	40%	28	CW	Substrate
HEG050F		0.389-0.409	20 W	31	-	65%	28	CW	QF2332-06
HEG032F		0.51-0.54	30 W	32	-	65%	28	CW	QF2332-06
HEG062T		0.48-0.61	25 W	32	-	65%	50	CW	BF04
HEG044E		0.89-1.0	10 W	25	-	60%	28	Pulse	QF136GC
HEG060E		0.99-1.15	10 W	25	-	60%	28	Pulse	QF136GC
HEG639E		0.96-1.25	100 W	11	-	0.6	28	Pulse	QF136GC
HEG634B		1.15-1.23	90 W	11	-	65%	28	CW	QF136PC
HEG209B		1.35-1.4	60 W	11	-	74%	28	CW	QF136PC
HEG640B		1.35-1.4	100 W	12	-	70%	28	CW	QF136PC
HEG641B		1.35-1.4	100 W	14	-	70%	50	CW	QF136PC
HEG001D		1.2-1.4	20 W	12	-	60%	28	CW	QF92-4
HEG010D		1.2-1.4	10 W	14	-	55%	28	CW	QF92-4
HEG126L		1.2-1.6	10 W	12	-	60%	28	CW	QF089
HEG127D		1.2-1.9	10 W	28	-	57%	28	CW	QF92-4
HEG081E-1		1.2-1.5	20 W	25	-	55%	28	CW	QF136GC
HEG128E		1.2-1.4	30 W	26	-	57%	28	CW	QF136GC
HEG117E		1.2-1.4	60 W	12	-	70%	28	Pulse	QF136GC
HEG205D		1.2-1.4	60 W	10	-	55%	28	Pulse	QF92-4
HEG644E		1.2-1.4	100 W	14	-	55%	48	Pulse	QF136GC
HEG600B		1.2-1.4	100 W	12	-	55%	28	Pulse	QF136PC
HEG608E		1.2-1.4	200 W	14	-	60%	48	Pulse	QF136GC
HEG608B		1.2-1.4	200 W	15	-	55%	50	Pulse	QF136PC
HEG029E		1.3-1.5	20 W	28	-	50%	28	Pulse	QF136GC
HEG230E		1.3-1.8	80 W	11	-	55%	28	CW	QF136GC
HEG632B		1.46-1.49	80 W	13	-	70%	36	CW	QF136PC
HEG085D		1.55-1.60	20 W	12	-	60%	28	CW	QF92-4
HEG053D		1.61-1.62	18 W	11	-	60%	28	CW	QF92-4
HEG220E		1.4-1.8	60 W	11	-	60%	28	Pulse	QF136GC
HEG100D		2.2-2.4	8 W	12	-	55%	32	CW	QF92-4
HEG107E		2.2-2.3	12 W	35	-	45%	28	CW	QF136GC
HEG030D		2.2-2.3	12 W	11	-	60%	28	CW	QF92-4
HEG037L		2.0-6.0	1 W	24	-	20%	28	CW	QF089
HEG008D-1		2.0-2.3	8 W	10	-	55%	28	CW	QF92-4
HEG008D-2		2.0-2.3	8 W	10	-	55%	28	CW	QF92-4

Part Number	Feature	Frequency (GHz)	Psat	Gain (dB)	Gain Flatness (dB)	PAE (%)	Operating Voltage (V)	Typical Operating Condition	Package
HEG023D		2.0-2.3	16 W	11	-	60%	28	CW	QF92-4
HEG031D		2.2-2.3	20 W	11	-	60%	28	CW	QF92-4
HEG019B		2.2-2.3	40 W	11	-	60%	28	CW	QF136PC
HEG411B		2.2-2.3	100 W	12	-	58%	28	CW	QF136PC
HEG403E		2.3-2.8	80 W	11	-	60%	28	Pulse	QF136GC
HEG646B		2.4-2.8	100 W	12	-	60%	28	CW	QF136HP
HEG840B		2.3-2.5	1400 W	11	-	55%	50	Pulse	QF136HP
HEG405B		2.7-3.1	80 W	12	-	60%	28	Pulse	QF136PC
HEG616B		2.7-3.0	200 W	12	-	55%	32	Pulse	QF136PC
HEG824B		2.7-3.1	500 W	13	-	50%	48	Pulse	QF136PC
HEG825B		2.7-3.1	600 W	11	-	53%	48	Pulse	QF136HP
HEG401E		3.1-3.5	80 W	11	-	55%	28	Pulse	QF136GC
HEG615B		3.1-3.5	120 W	11	-	58%	28	Pulse	QF136 PC
HEG612B		3.1-3.5	160 W	11	-	58%	28	Pulse	QF136 PC
HEG803B		3.1-3.5	220 W	11	-	58%	28	Pulse	QF136PC
HEG006D		2.7-3.5	10 W	34	-	35%	28	CW	QF92-4
HEG009L		2.7-3.5	10 W	19.5	-	40%	28	CW	QF089
HEG002L		2.7-3.5	20 W	19.5	-	40%	28	Pulse	QF089
HEG052D-1		2.7-3.5	20 W	17	-	35%	28	CW	QF92-4
HEG052D-2		2.7-3.5	20 W	17	-	35%	28	CW	QF92-4
HEG200B		2.7-3.5	60 W	11	-	55%	28	Pulse	QF136PC
HEG601B		2.7-3.5	120 W	11	-	55%	28	Pulse	QF136PC
HEG629B		2.7-3.3	160 W	12	-	55%	28	Pulse	QF136PC
HEG813B		2.7-3.5	250 W	11	-	50%	32	Pulse	QF136PC
HEG043D		3.6-4.2	12 W	11	-	50%	48	CW	QF92-4
HEG633B		3.6-4.2	120 W	13	-	55%	48	Pulse	QF136PC
HEG038L		4.4-5.0	10W	18	-	40%	28	CW	QF089
HEG039L		4.4-6.0	20 W	18	-	40%	28	Pulse	QF089
HEG047D		4.4-5.0	4 W	18	-	45%	28	CW	QF92-4
HEG102D		4.4-5.0	4 W	32	-	45%	28	CW	QF92-4
HEG021C		4.4-5.0	5 W	10	-	50%	28	CW	QF92B
HEG028C		4.4-5.0	15 W	10	-	50%	28	CW	QF92B
HEG013C		4.4-5.0	30 W	10	-	55%	28	CW	QF136HK
HEG202C		4.4-5.0	60 W	10	-	50%	28	CW	QF136HK
HEG602B		4.4-5.0	100 W	10	-	50%	28	CW	QF136PC
HEG652B		4.4-5.0	150 W	10	-	50%	28	CW	QF136PC
HEG808B		4.4-5.0	200 W	10	-	50%	28	Pulse	QF136PC
HEG040L		5.0-6.5	4 W	18	-	40%	28	CW	QF089
HEG034L		5.0-6.0	10 W	19	-	40%	28	CW	QF089
HEG007C		5.2-5.9	16 W	10	-	50%	28	CW	QF136HK
HEG088E		5.2-5.9	18 W	30	-	40%	28	Pulse	QF136GC
HEG077E		5.2-5.9	30 W	26	-	50%	28	CW	QF136GC

Part Number	Feature	Frequency (GHz)	Gain (dB)	Gain Flatness (dB)	Psat	PAE (%)	VSWRin	Operating Voltage (V)	Package
NC31687M-3134P16M		3.1-3.4	32	±0.3	42	45	2	28	QF92-4AC
NC31624M-3135P20		3.1-3.5	25	±0.5	42.5	45	<2:1	36	QF92-4AC
NC31668M-3135P130		3.1-3.5	11	±0.5	51	60	3	28	QF136GD
NC31669M-3135P230		3.1-3.5	12	±0.5	53.5	60	3	32	QF136GD
NC316213M-3742P16		3.7-4.2	22	±0.5	42	40	2	28	QF92-4AC
NC31678M-3943P50		3.9-4.3	11	±0.5	47	50	3	28	QF136GC
NC31675M-4348P15		4.3-4.8	15	±0.6	42	40	2	28	QF136HG
NC31656M-4450P5		4.4-5	20	±1	37	38	2	28	QF92-4
NC31611S-4549P10		4.5-4.9	17	±0.5	40	30	1.5	28	QF089
NC31652M-4549P30		4.5-4.95	12.1	±0.5	44.8	55	-	28	QF136G
NC31694M-406P64		4-6	8	±1.5	48	35	3	30	QF136GC
NC31695M-510P40		5-10	34	±1.5	46	25	2	28	337×110×8
NC31671M-5259P200		5.2-5.9	11	±0.5	53.1	55	2	28	QF137GD
NC31660M-5359P50		5.3-5.9	27	±0.5	47	50	2	28	QF136GD
NC31697M-5359P100		5.3-5.9	10	±0.5	50	50	3	28	QF136GD
NC31684M-618		6-18	18	±2.5	15	22	2.5	24	Module
NC31607M-812P100		8-12	21	±0.6	50	35	≤2.0	30	MQFM2425-X6
NC31602S-8510P30		8.8-10	20	±0.4	44.5	26	-	28	QF089
NC31680M-1011P130		10-11	19	±0.3	51	35	2	28	Package
NC316225M-1315P50		13.75-15.35	20	-	47	-	-	28	Module
NC31676M-1517P40		15-17	36	±0.75	46	28	-	28	MQF
NC31654M-3435P25		34.8-35.2	15	±0.5	44	16.7	1.2	22	Module
NC31655M-3435P16		34.8-35.2	15	±0.5	42	20	1.2	22	Module
NC316214M-088094P2		88-94	16	±1.5	33	10	2	18	Module
NC316219M-105110		105-110	14	±0.5	23	4	2.5	15	Module
HEG106E		2.7-3.5	30	-	10 W	40%	-	32	QF136GC
HEG606J		2.7-3.5	40	-	80 W	50%	-	28	QF3045
HEG618J		3.1-3.4	40	-	100 W	53%	-	28	QF2840
HEG650J		3.1-3.5	40	-	120 W	53%	-	32	QF2545-5A
HEG620J		2.7-3.5	40	-	200 W	50%	-	32	QF2545-5A
HEG841J		2.7-3.5	33	-	400 W	45%	-	48	QF2545-5A
HEG232J		4.4-5.0	40	-	60 W	55%	-	28	QF2545-5A
HEG651J		4.4-5.0	40	-	100 W	55%	-	28	QF2545-5A
HEG653J		4.4-5.0	40	-	200 W	50%	-	28	QF2545-5A
HEG233J		5.2-5.9	40	-	60 W	50%	-	28	QF2545-5A
HEG654J		5.2-5.9	40	-	100 W	50%	-	28	QF2545-5A
HEG649J		5.2-5.9	40	-	150 W	50%	-	28	QF2545-5A



5 T/R Module Chipset and Functional MMIC

5.1 T/R Multiple Chips Solution and Super 2 Chips Solution

Frequency Band	Part Number	Description
960MHz-1215MHz 100W T/R	NC1074C-0835A	Low Noise Amplifier
	NC16100C-112	Switch
	NC1220C-112	Digital Controlled Phase Shifter
	NC1315C-108A	Digital Controlled Attenuator
	NC35153MC-112	Limiter
	NC31630MC-111P180	Power Amplifier
	NC16603C-0820	GaN Switch
L Band T/R Chipset	NC1811C-108	Limiter
	NC1074C-0835A	Low Noise Amplifier
	NC15203C-1113SD	Phase Shifter/Attenuator Multifunctional Chip
	NC10106C-103	Driver Power Amplifier
S Band Double-Conversion Chipset	NC11692C-1114P2	GaN Power Amplifier
	NC15103C-2735	Double TX/RX Conversion Multifunctional Chip
	NC15115C-0515	Bilateral Amplifier
S Band 8W Once-Conversion Chipset	NC17126C-102	Integrated LO/Driver/Mixer
	NC15104C-2325/ NC15104C-2325M	Double TX/RX Conversion Multifunctional Chip
	NC11648C-2325/ NC11648C-2325M	GaN Power Amplifier
	NC1007C-2224A	Low Noise Amplifier
C Band 60W T/R Chipset	NC16112C-105PD	SPDT
	NC11278C-618	Power Amplifier
	NC16105C-112PD	Switch
	NC1268C-506PD	Digital Controlled Phase Shifter

Frequency Band	Part Number	Description
C Band 60W T/R Chipset	NC1326C-118	Digital Controlled Attenuator
	NC11645C-506	Driver Power Amplifier
	NC11660C-506P60	GaN Power Amplifier
C Band 8W GaAs T/R Chip	NC1016C-5258	Low Noise Amplifier
	NC1326C-118	Digital Controlled Attenuator
	NC1506C-506	Amplitude-phase Controlled Multifunctional Chip
	NC11165C-506	Power Amplifier
	NC1338C-120	Digital Controlled Attenuator
C Band Width-Band Double-Conversion Chipset	NC15400C-408	Double TX/RX Conversion Multifunctional Chip
	NC15115C-0515	Bilateral Amplifier
	NC17126C-102	Integrated LO/Driver/Mixer
C Band Narrow-Band Double-Coverion Chipset	NC15403C-506	Double TX/RX Conversion Multifunctional Chip
	NC15115C-0515	Bilateral Amplifier
	NC17126C-102	Integrated LO/Driver/Mixer
X Band T/R Chipset 2W Chipset (GaAs)	NC1808C-618	Limiter
	NC1001C-812S	Low Noise Amplifier
	NC1517C-812SD	Multifunctional Chip
	NC11166C-812	Power Amplifier
X Band T/R Chipset 5W Chipset (GaAs)	NC1810C-812	Limiter
	NC1001C-812S	Low Noise Amplifier
	NC1517C-812SD	Multifunctional Chip
	NC11245C-715	Driver Power Amplifier
	NC11282C-812P6	Power Amplifier
	NC1338C-120	Fixed Attenuator
X Band T/R Chipset 10W Chipset (GaAs)	NC1810C-812	Limiter
	NC1001C-812S	Low Noise Amplifier
	NC1517C-812SD	Multifunctional Chip
	NC11245C-715	Driver Power Amplifier
	NC1168C-812	Power Amplifier
X Band T/R Chipset 15W Chipset (GaAs)	NC1338C-120	Fixed Attenuator
	NC1810C-812	Limiter
	NC1001C-812S	Low Noise Amplifier
	NC1517C-812SD	Multifunctional Chip
	NC11245C-715	Driver Power Amplifier
X Band T/R Chipset 50W Chipset (GaAs)	NC11604C-812P15	Power Amplifier
	NC1338C-120	Fixed Attenuator
	NC1810C-812	Limiter
	NC1001C-812S	Low Noise Amplifier
	NC1517C-812SD	Multifunctional Chip
X Band 10W Digital Conversion T/R Chipset	NC11678C-812	Driver Power Amplifier
	NC11619C-812P50	Power Amplifier
	NC1338C-120	Fixed Attenuator
	NC11657C-812P15	GaN Power Amplifier
	NC11126C-812	Medium Power Amplifier

Frequency Band	Part Number	Description
X Band 10W Digital Conversion T/R Chipset	NC1592C-812	TX/RX Multifunctional Chip
	NC17108C-615	Mixer
X Band Wide-Band Double-Conversion Chipset 1	NC15401C-812	Double TX/RX Conversion Multifunctional Chip
	NC15103C-2735	Double TX/RX Conversion Multifunctional Chip
X Band Wide-Band Double-Conversion Chipset 2	NC15402C-812	Double TX/RX Conversion Multifunctional Chip
	NC15103C-2735	Double TX/RX Conversion Multifunctional Chip
X Band Narrow-Band Double-Conversion Chipset 2	NC1596C-910	Double TX/RX Conversion Multifunctional Chip
	NC1597C-104	Bilateral Amplifier
	NC17126C-102	Integrated LO/Driver/Mixer
Ku Band 1W/2W/7W T/R Chipset	NC1808C-618	Limiter
	NC1089C-1418	Low Noise Amplifier
	NC15328C-1418SD	Multifunctional Chip
	NC11201C-1418	Power Amplifier 1W
	NC11160C-1418	Power Amplifier 2W
	NC11632C-1418P7	Power Amplifier 7W
	NC11300C-1418	Driver Power Amplifier
Ku Band 20W T/R Chipset	NC1808C-618	Limiter
	NC1089C-1418	Low Noise Amplifier
	NC15328C-1418SD	Amplitude-phase Controlled Multifunctional Chip
	NC11668C-1418P20	GaN Power Amplifier
	NC11278C-618	Driver Power Amplifier
6-18 Wide-Band T/R Chipset	NC15329C-618PD	Phase Shifter/ Attenuator Multifunctional Chip
	NC11683C-618	Power Amplifier
	NC11278C-618	Driver Power Amplifier
	NC11261C-618	Driver Power Amplifier
	NC1808C-618	Wide-Band Limiter
	NC16602C-618	GaN Switch
	NC10108C-618	Low Noise Amplifier
	NC6507C-618U	Divider
	NC2088-1C	Series to Parallel Chip
K Band T/R Chipset	NC15305C-1923SD	Amplitude-phase Controlled Multifunctional Chip
	NC1594C-1923	TX/RX Multifunctional Chip
34-36GHz T/R Chipset	NC1681C-3337R	PIN SPDT
	NC11175C-3436	Medium Power Amplifier
	NC10229C-264	Low Noise Amplifier
	NC1595C-3337	TX/RX Multifunctional Chip
	NC1502C-3436	Digital Controlled/Phase Shifter/ Attenuator Integrated Chip
	NC2059C	Wave Controlled Circuit
2-6 GHz Wide-Band T/R Chip	NC1033C-206B	Low Noise Amplifier
	NC1064C-206B	Low Noise Amplifier
	NC18XXC-106	Limiter
	NC13131C-108PD	Digital Controlled Attenuator
	NC1217C-206	Digital Controlled Phase Shifter
	NC16113C-106PD	Switch

Frequency (GHz)	Function	Insertion Loss (dB)	Return Loss (dB)	Phase Shift Accuracy (RMS)	Amplitude Fluctuation (dB)	Chip Size (mm×mm×mm)	Part Number
1.6~3.2	6bit, LSB: 5.625°	10	15	2.50	±0.5	5.00x3.20 x 0.1	BW326D
2.1~3.2	6bit, LSB: 5.625°	11.5	15	2.00	±0.5	4.60x2.80x0.1	BW310
2.5~3.7	6bit, LSB: 5.625°	5	16	1.50	±0.4	4.00x1.58x0.1	BW311
2.5~3.7	6bit, LSB: 5.625°	6	15	1.50	±0.5	3.70x2.10x0.1	BW1253D
5.0~6.0	6bit, LSB: 5.625°	6	18	1.00	±0.5	3.89x1.45x0.1	BW312
2.0~6.0	6bit, LSB: 5.625°	14	12	2.50	±0.7	4.9x2.9x0.1	BW335D
6.0~7.5	6bit, LSB: 5.625° Integrated Driver	7	15	1.6°	±0.5	3.9x2.0x0.1mm	BW1250D
8.5~11.5	6bit, LSB: 5.625°	8.0	15	1.00	±0.5	4.05x1.60x0.1	BW313
8.0~12.0	6bit, LSB: 5.625°	8.0	15	2.00	±0.5	4.05x1.60x0.1	BW332
8.0~12.0	6bit, LSB: 5.625° Integrated Driver	8.0	15	2.00	±0.5	4.05x1.80x0.1	BW332D
8.0~12.0	Modulation Application 00,±100,±200	0.2	22	—	±0.1	1.33x1.74x0.1	BW339
8.0~12.0	4bit, LSB: 22.5°	7.0	15	2.5°	±0.5	2.0x2.0x0.1	BW330
8.0~12.0	6bit, LSB: 5.625°	8	15	1.3°	±0.5	2.9x1.4x0.1	BW1254
8.0~12.0	6bit, LSB: 5.625°, Integrated Driver	8	15	1.3°	±0.5	2.9x1.6x0.1	BW1254D
12.0~15.0	6bit, LSB: 5.625°	7.8	16	4.00	±0.5	3.00x1.30x0.1	BW314
11.0~17.0	6bit, LSB: 5.625°	9.5	15	2.50	±0.5	2.90 x1.2x0.1	BW334
6.0~18.0	6bit, LSB: 5.625°	12	15	8.00	±2.0	2.81x3.39x0.1	BW324
14.0~18.0	1bit, LSB:	2.5	20	20	±0.4	1.10x1.10x0.1	BW336D
14.0~18.0	6bit, LSB: 5.625°	8.5	15	1.50	±0.5	2.90x1.30x0.1	BW337
14.0~18.0	6bit, LSB: 5.625°	8.5	15	1.50	±0.5	2.90x1.30x0.1	BW337
32.0~38.0	5bit, LSB: 11.25°	7.5	12	20	±0.5	2.30x1.60x0.1	BW1256

5.3 Limiter MMIC (1)

Part Number	Feature	Frequency (GHz)	Insertion Loss (dB)	VSWRin	VSWRout	Limiting Level (dBm)	Peak Power (dBm)	Chip Size (mm×mm×mm)
NC1811C-108		1-8	0.35*	≤1.3	≤1.4	15*	40*	1.60×0.70×0.10
NC1840C-1214		1.2-1.4	0.35*	1.3*	1.3*	16*	50*	2.00×1.50×0.10
NC1824C-105		1.5-4.5	0.5*	1.6*	1.6*	15*	43*	1.80×1.00×0.10
NC1807C-206		2-6	≤0.5	≤1.5	≤1.5	15*	37*	1.62×0.74×0.10
NC1803C-218		2-18	0.6*	≤2	≤2	15*	36*	1.62×0.74×0.10
NC1841C-506		5-6	0.5*	1.3*	1.3*	16*	50*	2.00×1.50×0.10
NC1832C-508		5-8	1*	1.2*	1.2*	17*	37*	3.00×3.60×0.10
NC1843C-512		5-12	0.7*	1.6*	1.6*	16*	44*	2.00×1.20×0.10
NC1808C-618		6-18	≤0.5	≤1.6	≤1.6	15*	36*	1.62×0.74×0.10
NC1818C-622		6-22	≤1	≤2.1	≤2.1	16*	38.5*	1.00×0.90×0.10
NC1844C-713		7-13	0.7*	1.6*	1.6*	17*	44*	1.80×1.20×0.10
NC1816C-811		8-11	≤0.35	≤1.3	≤1.3	15*	35*	1.60×0.70×0.10
NC1810C-812		8-12	≤0.6	≤1.5	≤1.5	15*	40*	1.60×0.70×0.10

Part Number	Feature	Frequency (GHz)	Insertion Loss (dB)	VSWRin	VSWRout	Limiting Level (dBm)	Peak Power (dBm)	Chip Size (mm×mm×mm)
NC1842C-8510A		8.5-10.5	0.6*	1.3*	1.3*	16*	49*	2.00×1.20×0.10
NC1823C-812		8.5-12	0.45*	1.5*	1.5*	14*	43*	0.90×1.00×0.10
NC1838C-1018		10-18	0.6*	1.4*	1.4*	20*	43*	1.20×1.10×0.10
NC1828C-1218		12-18	0.8*	1.4*	1.4*	19*	43*	0.90×1.00×0.10
NC1821C-1218		12-18	0.6*	1.4*	1.4*	15*	40*	1.20×0.70×0.10
NC1817C-1826		18-26	≤1	≤1.4	≤1.4	17*	33*	1.00×0.80×0.10
NC1833C-3238		26-38	0.8*	1.4*	1.4*	17*	34*	1.00×0.60×0.10

Note: The peak power is CW or pulse power, “*” Typical value.

5.3 Limiter MMIC (2)

Frequency (GHz)	Insertion Loss (dB)	Return Loss (dB)	Limiting Level (dBm)	Max Input Power (CW) W	Size (mm)	Part Number
1.0~1.4	0.15	-20	+14.5	100	1.75x1.25x0.1	BW1550
5.0~6.0	0.9	-20	+18.5	10	2.75 x2.65 x0.1	BW1552
1.0~2.0	0.4	-15	+14.5	100	1.75x1.25x0.1	BW484
2.0~4.0	0.4	-15	+15	40	1.80x1.15x0.1	BW485
1.0~6.0	0.5	-12	+16	20	1.80x1.30x0.1	BW487
5.0~6.0	0.4	-15	+15.5	20	1.90x1.15x0.1	BW486
DC~10.0	0.3	-25	+15	5	1.17x0.94x0.1	BW480
8.0~12.0	0.7	-15	+15.5	20 (Pulse)	1.65 x1.25 x0.1	BW1555
DC~18.0	0.5	-20	+16	2	1.23x0.66x0.1	BW481
10.0~18.0	0.7	-15	+16	20 (Pulse)	1.4 x1.45 x0.1	BW1599

5.4 Switch MMIC

5.41 GaN FET Switch

Part Number	Feature	Type	Frequency (GHz)	Insertion Loss (dB)	Isolation (dB)	VSWR-on	VSWR-off	Input P-0.2 (dBm)	Switch Time (ns)	Controlled Level (V)	Chip Size (mm×mm×mm)
NC16607C-102		SPDT	DC-2	0.6*	30*	1.2*	N/A	49.5*	25*	0/-40	1.20×1.00×0.08
NC16601C-106		SPDT	DC-6	0.8*	35*	1.5*	N/A	45*	25*	0/-35	2.00×1.30×0.08
NC16609C-118		SPST	DC-18	0.5*	23*	1.5*	N/A	46*	20*	0/-28	0.90×0.60×0.08
NC16603C-0820		SPDT	0.8-2	0.4*	40*	1.3*	N/A	49*	20*	0/-40	1.20×1.00×0.08
NC16602C-618		SPDT	6-18	1*	35*	1.4*	N/A	36*	15*	0/-20	1.30×0.90×0.08
NC16611C-812		SPDT	8-12	0.8*	35*	1.4*	N/A	46*	20*	0/-40	2.00×2.00×0.08
NC16608C-840		SPDT	8-40	3.0*	20*	1.7*	N/A	33*	20*	0/-20	1.10×0.90×0.08
NC16610C-1018		SPDT	10-18	1.0*	27*	1.6*	N/A	41*	20*	0/-28	2.00×1.30×0.08
NC16606C-3436		SPDT	34-36	1.4*	25*	1.6*	N/A	33*	20*	0/-40	1.30×1.05×0.08

Note : “*” is typical values; “R” is +5V on-state, and -5V is off-state; “PD” is parallel driver.

5.42 GaN Switch MMIC

Frequency (GHz)	Function	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Input P-0.1 (dBm)	Driving Method (V)	Chip Size (mm×mm×mm)	Part Number
1.0~5.0	SPDT , 20W	1.1	40	15	43	0/ +28	2.4x1.6x0.1	BW1041
DC~6.0	SPDT , 10W	0.5	32	20	40	0/ -28	1.8x1.0x0.1	BW1047
DC~8.0	SPDT , 10W	0.9	50	20	40	0/ -28	1.6x1.4x0.1	BW1044
8.0~12.0	SPDT , 10W	0.6	35	20	40	0/ -28	2.0x2.1x0.1	BW137
8.0~12.0	SPDT , 20W	0.7	37	20	43	0/ -28	2x2.35x0.1	BW1048
8.0~12.0	SPDT , 40W	0.8	30	16	45	0/ -28	2x2.35x0.1	BW138
8.0~12.0	SPDT , 40W	0.75	35	18	46	0/ -28	2x2.1x0.1	BW1043
6.0~18.0	SPDT , 10W	1.0	35	15	40	0/ -28	2.4x1.9x0.1	BW136
12.0~18.0	SPDT , 10W	0.85	36	17	40	0/ -28	2.0x1.8x0.1	BW135

5.5 GaAs Limiting Low Noise Amplifier MMIC

Part Number	Frequency (GHz)	Gain (dB)	Noise (dB)	Output P-1 (dBm)	Ped (dBm)	Power Supply (V/mA)	Dimension (mm)
BW2653	0.8~2	31	1.6	17	43 (CW)	+5/105	3.4x1.7x0.07
BW2650	1.2~1.4	35.5	0.9	+11	50 (200us, 25%)	+5.0/55	3.2x1.7x0.07
BW2668	6~18	24	2.5	+9	40 (200us, 25%)	+5.0/55	4.0x1.85x0.07
BW2663	7~13	25	1.8	6	45 (200us, 25%)	+5/25	3.6*1.2*0.07
BW2661	8~12	23	2.1	-1	44 (200us, 10%)	+5.0/28	3.5x2.4x0.07
BW2662	8~12	23	2.2	-1	44 (200us, 10%)	+5.0/25	3.3x2.0x0.07
BW2657	8~12	27	2.1	+3	44 (200us, 10%)	+5.0/25	3.3x2.0x0.07
BW2664	9~16	29	1.7	10	37 (50us, 10%)	+5/22	2.8*1.3*0.07
BW2665	10~18	27	1.8	9	37 (2ms, 20%)	+5/20	2.2*1.45*0.07
BW2666	14~18	27	1.6	9	37 (1ms, 40%)	+5/20	3.9*1.3*0.07

5.6 Multifunctional MMIC

5.61 Digital-Phase Shift-Attenuation Integrated MMIC

Part Number	Feature	Frequency (GHz)	Insertion Loss (dB)	VSWRin	Phase Shift Bit	Phase Shift Range (°)	Attenuation Bit	Attenuation Range (dB)	Controlled Level (V)	Chip Size (mm×mm×mm)
NC15203C-1113SD		1.1-1.3	≤6	≤1.8	7	2.8-35 7.2	7	0-31.75	+5/0	5.85×3.00×0.07
NC15211C-1214SD		1.2-1.4	≤6	≤1.6	6	5.6-35 4.3	4	0.5-7.5	+5/0	4.50×2.70×0.07
NC1564C-225SD		2-2.5	5.2*	1.5*	6	5.6-35 4.3	4	0.5-7.5	+5/0	5.00×2.20×0.07
NC15208C-225SD		2-2.5	5.5*	≤1.6	6	5.6-35 4.3	4	0.5-7.5	+5/0	5.00×2.20×0.07
NC15214C-2735PD		2.7-3.5	3*	1.5*	-	-	6	0.5-31.5	+5/0	2.50×2.00×0.07
NC15202C-506SD		5-6	6*	1.4*	5	11.2-3 48.7	5	0.5-15.5	+5/0	3.10×3.45×0.07
NC1561C-506PD		5-6	6	1.5	5	11.2-3 48.7	5	0.5-15.5	+5/0	2.50×3.50×0.07
NC15206C-811SD		8-11	12*	1.7*	6	5.6-35 4.3	6	0.5-31.5	+5/0	5.00×2.50×0.07
NC15224C-8510SD		8.5-10.5	3*	1.7*	6	0-360	6	0.5-31.5	+5/0	5.70×2.50×0.07
NC15224C-8510SDM		8.5-10.5	3*	1.7*	6	0-360	6	0.5-31.5	+5/0	5.70×2.50×0.07
NC15218C-8810PD		8.8-10	8*	1.4*	5	11.2-3 48.7	-	-	+5/0	2.90×1.22×0.07
NC15218C-8810PDM		8.8-10	8*	1.4*	5	11.2-3 48.7	-	-	+5/0	2.90×1.22×0.07
NC15325C-9298		9.2-9.8	3*	1.7*	6	0-360	6	0.5-31.5	0/-5	5.70×1.90×0.07
NC15200C-1317SD		13-17	≤10.5	≤1.5	5	11.2-3 48.7	-	-	+5/0	3.50×1.80×0.07
NC15212C-1518SD		15-18	≤16	≤1.8	6	5.6-35 4.3	6	0.5-31.5	+5/0	4.00×4.00×0.07
NC15217C-1618SD/A		16-18	13*	1.8*	6	5.6-35 4.3	6	0.5-31.5	+5/0	4.50×2.10×0.07
NC15217C-1618SD/B		16-18	13*	1.8*	6	5.6-35 4.3	6	0.5-31.5	+5/0	4.50×2.10×0.07
NC1525C-1923		19-23	≤13	1.6*	6	5.6-35 4.3	5	0.5-15.5	0/-5	4.50×1.50×0.07
NC1525C-1923PD		19-23	≤13	1.6*	6	5.6-35 4.3	5	0.5-15.5	+5/0	4.50×1.50×0.07

Frequency (GHz)	Function	Receive Gain (dB)	Transmit Gain (dB)	Output P-1 (dBm)	Operation Voltage (V)	Quiescent Current (mA)	Chip Size (mm×mm×mm)	Part Number
2.7~3.5	Amplitude-phase Controlled Multifunctional chip, integrated amplifier switch 6 bit digital controlled attenuator 6 bit digital controlled phase shifter, parallel controlled.	-7.5	5	19.5	+5/-5	70/12	3.9x4.0x0.1	BWM269
8.5~11.5	Amplitude-phase Controlled Multifunctional chip, integrated amplifier switch 6 bit digital controlled attenuator 6 bit digital controlled phase shifter, series to parallel controlled.	12.5	13.5	14	+5/-5	50/18	5.0x3.6x0.1	BWM293
8.0~12.0	Amplitude-phase Controlled Multifunctional chip, integrated amplifier switch 6 bit digital controlled attenuator 6 bit digital controlled phase shifter, series to parallel controlled.	12.5	13.5	14	+5/-5	50/18	5.0x3.6x0.1	BWM245
10-18	Amplitude-phase Controlled Multifunctional chip, integrated amplifier, switch, 6 bit phase shifter, 6 bit attenuator, parallel controlled.	7	7.5	11	+5/-5	75	4.5×3.5×0.1	BWM410
14.0~18.0	Amplitude-phase Controlled Multifunctional chip, integrated amplifier switch 6 bit digital controlled attenuator 6 bit digital controlled phase shifter, parallel controlled.	9.0	23	-	+5/-5	75/160	4.8x3.8x0.1	BWM243

5.64 Tx/Rx Double-Conversion Multifunctional Chip

Part Number	Feature	Frequency (GHz)	LO Driver Power (dBm)	Receive Gain (dB)	Receive Noise (dB)	Receive LO-RF Isolation(dB)	Transmit Gain (dB)	Transmit P1dB (dBm)	Transmit LO-RF Isolation (dB)	Voltage/Current (V/mA)	Chip Size (mm×mm×mm)
NC15104C-2325	RF: 1.8-2.5 LO: 1.5-3 IF: 0.2-0.8		-5~0	18*	-	≥62	14*	17*	≥10	+5/110(Rx) /170(Tx), -5/4	2.90×4.40×0.07
NC15104C-2325M	RF: 1.8-2.5 LO: 1.5-3 IF: 0.2-0.8		-5~0	18*	-	≥62	14*	17*	≥10	+5/110(Rx) /170(Tx), -5/4	2.90×4.40×0.07
NC15103C-2735	RF: 2-4 LO: 1.5-5 IF: DC-0.8		-5~0	18*	7*	≥60	13*	15*	≥5	+5/220,-5/4	4.10×4.70×0.07
NC15400C-408	RF: 4-8 LO: 3-9 IF: 0.2-2		-5~0	12*	11*	≥50	12*	3*	≥15	+5/190,-5/4	3.30×4.10×0.07
NC15403C-506	RF: 5-6 LO: 3-8 IF: 0.2-2		-5~0	10*	8*	≥50	10*	7*	≥15	+5/190	3.30×4.10×0.07
NC15404C-618	RF: 6-18 LO: 6-20 IF: 0.01-6		0	7*	-	≥41	7*	12*	≥4	+5/330	3.40×3.50×0.07
NC15401C-812	RF: 8-12 LO: 9-15 IF: 1-3		0	5*	10*	≥50	5*	9*	≥5	+5/150	3.30×3.40×0.07
NC15402C-812	RF: 8-12 LO: 11-16 IF: 3-4		-3~0	8*	4*	≥28	9*	18*	≥2	+5/150	2.90×4.30×0.07

5.65 Mixer Multifunctional MMIC

RF Frequency (GHz)	LO Frequency (GHz)	Function	IF Frequency (GHz)	Conversion Gain (dB)	LO/RF Isolation (dB)	LO Level (dBm)	Voltage/Current (V/mA)	Chip Size (mm×mm×mm)	Part Number
1.0~1.5	1~1.5	I/Q Mixer, integrated with LO driver amplifier	DC-0.5	-8	40	+0	+5/50	3.6x 2.5 x 0.1	BWM230
0.7~2.0	0.7~2.0	Double balance mixer, integrated with LO driver amplifier and RF bilateral amplifier	DC~1.0	4	15	-7	+5/60+50	3.45x3.1x0.1	BWM210
0.7~2.0	0.7~2.0	Double balance mixer, integrated with LO driver amplifier	DC~1.0	-8	30	-7	+5/60	2.0x3.1x0.1	BWM211
1.0~3.0	1.0~3.0	Double balance mixer, integrated with LO driver amplifier	DC~1.0	-8	35	-5	+5/65	1.7x3.4x0.1	BWM209
2.7~3.5	3~4	Double balance mixer, integrated with LO gating switch LO driver amplifier and RF band-pass filter	0.4-1.1	-11	40	-7	+5/38	3.7x 2.35x 0.1	BWM234
2.0~4.0	2~4	Double balance mixer, integrated RF terminal 6 bits digital controlled attenuator and RF LNA	DC~1	14	65	+14	+5/50	2.95x 2.9x 0.1	BWM235
5.0~6.0	8~10	Double balance mixer, integrated with LO driver amplifier and RF bilateral amplifier	3~3.5	10/20	0	-7	+5/33+45	2.95x 2.7x 0.1	BWM236
1.8~6.0	1.8~6.0	Double balance mixer, integrated with LO driver amplifier	DC-2.5	-8	28	0~+6	+5/49	1.05x2.45x0.1	BWM251
4.0~8.0	4.0~8.0	Double balance mixer, integrated with LO driver amplifier and RF bilateral amplifier	DC~3.0	10	8	-7	+5/60+50	3.5x2.0x0.1	BWM218

RF Frequency (GHz)	LO Frequency (GHz)	Function	IF Frequency (GHz)	Conversion Gain (dB)	LO/RF Isolation (dB)	LO Level (dBm)	Voltage/Current (V/mA)	Chip Size (mm×mm×mm)	Part Number
6.0~12.0	6~18	Double balance mixer, integrated with LO driver amplifier and tri-port low-pass filter	DC~6.0	-8	30	-5	+5/56	1.52x2.9x0.1	BWM252
4.0~12.0	4~12	Double balance mixer, integrated with LO driver amplifier	DC~3.0	-8.5	40	+5	+5/25	1.3x 1.6x 0.1	BWM262/263
7.0~13.0	7~17	Double balance mixer, integrated with LO driver amplifier	DC~4.0	-8	20	-3	+5/60	2.2x0.9 x 0.1	BWM215
7.0~13.0	7~17	Double balance mixer, integrated with LO driver amplifier and RF bilateral amplifier	DC~4.0	11	0	-3	+5/60+45	2.2x2.8 x 0.1	BWM216
7.0~17.0	7~17	Double balance mixer, integrated with driver amplifier and medium frequency low-pass filter	DC~3.0	-7.5	30	-5	+5/65	3.0x1.36x0.1	BWM214
18.0~25.0	18~25	Double balance mixer, integrated LO driver amplifier RF and medium frequency low-pass filter	DC~7.0	-8	22	0	+5/60	1.2x2.3x0.1	BWM217

5.66 GaN Special Multifunctional MMIC

Frequency (GHz)	Function	Power Gain (dB)	Output Psat (dBm)	PAE (%)	Switch Insertion Loss (dB)	Power Supply	Controlled Voltage	Chip Size (mm)	Part Number
14~18	Internal integrated with amplifier and switch	26	35.5	32	1.1	+28V/500mA	0/-28V	3.60x1.50x0.08	BWM397/398
14.5~17.5	Internal integrated with amplifier and switch	23.5	41.5	35	0.9	+28V/1.5A	0/-28V	4.00x2.65x0.10	BWM305