

Microwave Module

GaAs devices and MMIC products

METDA offers a broad range of GaAs Devices and MMIC products widely served in Communication and Radar markets, sets of transmitting and receiving chips are provided in full band range. Customized products can be offered according to specific request.

3. Microwave Module

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3. Microwave Module

3.1 Wideband Low Noise Amplifier Module

	Frequency (GHz)	Gain (dB)	Gain Flatness (dB)	NF (dB)	P-1 (dBm)	VSWRin	VSWRout	Current (mA)	Package
NC3038M-102	1-2	>33	±1	<1.5	>17	<2	<2	<220	SMA-13
NC3014M-108	1-8	>33	±1.5	<2.0*	>9	<2.0	<2.0	200	SMA-2
NC3011M-108	1-8	>17	±1.5	<2.0	>9	<2.0	<2.0	100	SMA-2
NC3002M-118	1-18	>26	±3.5	<5	>15	<2.5	<2.5	200	SMA-4
NC3003M-118	1-18	>22	±3.0	<5	>20	<2.5	<2.5	350	SMA-4
NC3004M-118	1-18	>26	±3.0	<5	>10	<2.5	<2.5	120	SMA-4
NC3039M-204	2-4	>35	±0.8	1.5*	>12	<2.0	<2.0	160	SMA-11
NC3020M-206	2-6	>22	±1	<1.6	>10	<1.8	<1.6	90	SMA-1
NC3015M-218	2-18	>13	±2	2.5*	>6	<2.0	<1.6	50	SMA-1
NC3037M-408	4-8	>40	±1	1.6*	>12	<2.0	<2.0	200	SMA-10
NC3010M-611	6-11	>47	±1.0	<1.7	>10	<2.0	<2.0	120	SMA-2
NC3012M-618	6-18	>15	±1.0	2.5*	>6	<2.0	<1.6	50	SMA-1
NC3013M-618	6-18	>17	±1.0	4.5*	>14	<2.0	<2.2	80	SMA-1
NC3029M-812	8-12	>39	±2.0	<1.8	>9	<2.0	<2.0	100	SMA-2

Note : * : Typical Value

3.2 Low Noise Amplifier Module

	Frequency (GHz)	Gain (dB)	Gain Flatness (dB)	NF (dB)	P-1 (dBm)	VSWRin	VSWRout	Current (mA)	Package
NC3016M-2224	2.2-2.4	>30	±0.5	<1.5	>10	<1.5	<1.6	45	SMA-1
NC3017M-2426	2.4-2.6	>35	±0.5	<1.1	>5	<1.5	<1.5	35	SMA-1
NC3018M-3134	3.1-3.4	>22	±0.5	<1.3	>12	<1.6	<1.6	45	SMA-1
NC3019M-5258	5.2-5.8	>22	±0.5	<1.5	>12	<1.5	<1.6	50	SMA-1

3.3 Power Amplifier Module

	Frequency (GHz)	Gain (dB)	Gain Flatness (dB)	POUT (dBm)	VSWRin	VSWRout	Current (mA)	Package
NC3111M-5258	5.2-5.8	30*	±0.5	>44	-	-	8000	SMA-K
NC3102M-811	8-11	>34	±1.0	>25	<2.0	<2.0	350	SMA-4
NC3101M-910	9-10	>60	±0.8	>25	<2.0	<2.0	400	SMA-4
NC3107M-1517	15-17	>33	±1.0	39*	-	-	5500	SMA-25
NC3123M-5258	5-6	21*	±0.3	44*	<2.0	-	1200	MoKu Carrier
NC3130M-812	8-12	18*	±0.3	43*	<2.0	-	1200	SMA-34
NC3113M-812	8-12	>33	±0.5	>33	<2.0	-	1000	SMA-33
NC3114M-812	10-12	15*	±0.4	46*	<2.0	-	2400	FP2928-06
NC3131M-1416	14-16	18*	±0.5	43*	2.0*	-	1100	SMA-34
NC3132M-1617	16-17	15*	±0.4	43*	2.0*	-	1200	SMA-34

3.3 Power Amplifier Module

	Frequency (GHz)	Bits	Insert Loss (dB)	VSWRin	VSWRout	Control Level (V)	Connector	Package
NC3201M-206	2-6	5	<10	<2.2	<2.2	-5/0	SMA	SMA-6
NC3203M-812	10.9-11.56	6	<9.0	<1.8	<1.8	TTL	SMA-K	SMA-9

3.5 Attenuator Module

	Frequency (GHz)	Attenuation Range (dB)	Insert Loss (dB)	VSWRin	VSWRout	Control Level (V)	Connector	Package
NC3304M-118	1-18	0.5-51.5	7*	1.7*	1.7*	TTL	SMA	SMA-9
NC3301M-218	2-18	0.5-31.5	<5.0	<1.6	<1.6	TTL	SMA	SMA-9

3.6 Microwave Switch Module

	Type	Frequency (GHz)	Insert Loss (dB)	Isolation (dB)	Switching Time (ns)	VSWRon	VSWRoff	Control Level (V)	Connector
NC3603M-018	SPDT	DC-18	<3.5	>32	<10	<1.8	<1.8	TTL	SMA
NC3608M-012	SPDT	DC-12	<2.0	>35	<20	<1.6	<1.6	TTL	SMA

3.7 Multi-functional Circuit Module

I) Limiter-Switch-LNA-Power Amplifier Module

	Frequency (GHz)	Gain (dB)	NF (dB)	VSWRin	VSWRout	Switching on-off Ratio (dB)	Max Input	Control Level (V)	Package
NC3501M-910A	9-10	>22	<2.6	<1.8	<1.8	>35	10W(Pulse)	TTL	SMA-7

II) Phase shifter-Attenuator Module

	Frequency (GHz)	Insert Loss (dB)	VSWRin	VSWRout	Control Level (V)	Connector	Package
NC3502M-618	6-18	<17	<2.5	<2.5	-5/0	SMA	SMA-8

III) Multi-chips Microwave Receiving Module

	Frequency (GHz)	Gain (dB)	NF (dB)	Image Rejection (dB)	Switching Isolation (dB)	Attenuation RANGE (dB)	Driving Level	IF MHz)
NC3509M-811	8-11	>60	<2.5	>20	-	-	-	30
NC3506M-812	8-12	55	<3.5	>45	-	0-55	TTL	<500
NC3508M-910	9.5-10.5	>40	<4.5	>40	>45	0-50	TTL	900
NC3503M-1516	15.2-16.8	>25	<3.5	>40	>45	0-31	TTL	-

IV) Limiter-Attenuator-LNA Module

	Frequency (GHz)	Gain (dB)	NF (dB)	VSWRin	VSWRout	Decrement (dB)	P-1 (dBm)
NC3504M-812	8-12	>17.5	<3.5	<1.9	<1.5	20	>8

V) Digital Switch-Attenuator-Amplifier Module

	Frequency (GHz)	Gain (dB)	NF (dB)	VSWRin	VSWRout	Switching on-off Ratio (dB)	Control Level (V)	Package
NC3507M-506	5-6	>22	2.9*	<1.8	<1.8	>40	TTL	SMA-12

Note : * : Typical Value

VI) Switch-Filter Module

	Frequency (GHz)	Insert Loss (dB)	VSWRon	VSWRoff	Control Level (V)	Connector
NC3510M-318	3-18	<7	<2.5	-	TTL	SMA

Note : Multifunctional Circuit Modules and Package can be customized and selected according to request.