

Mvit Technology Wideband Power Amplifier

MVIT



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9kHz-6GHz Series

Solid State Power Amplifier

Based on the latest Gallium Nitride (GaN) technology, the 9kHz-6GHz amplifier offers ultra-wide bandwidth, high linearity, and 20-3500W output. Power amplifiers in this frequency range can also be customized to meet your specific requirements.

Product features

- Ultra -wide bandwidth
- High linearity
- High output power
- High-efficiency GaN technology
- Low power consumption
- Voltage/Current/Over temperature and high VSWR protection
- CE,ROHS certification

Available Models

Frequency Range	Model	Minimum Output Power(W)	Gain (dB)	Gain Adjustment(dB)	Harmonic Suppression (dB)	Gain Flatness(dB)
9k-100MHz	M-9K-100M-1000	1000	60	20	-10	±4
	M-9K-100M-3500	3500	66	20	-15	±5
9k-250MHz	M-9K-250M-100	100	50	20	-10	±4
	M-9K-250M-400	400	57	20	-10	±4
9K-400MHz	M-9K-400M-500	500	57	20	-10	±4
80M-1GHz	M-80M-1-400	400	56	20	-10	±4
	M-80M-1-1200	1200	63	20	-10	±4
0.8-2.5GHz	M-0P8-2P5-100	100	50	20	-10	±3
	M-0P8-2P5-200	200	50	20	-10	±3
	M-0P8-2P5-300	300	55	20	-10	±3
	M-0P8-2P5-400	400	56	20	-10	±3
	M-0P8-2P5-500	500	57	20	-13	±3
	M-0P8-2P5-1000	1000	60	20	-10	±3
1-2GHz	M-1-2-200	200	53	20	-10	±3
	M-1-2-300	300	55	20	-13	±2
	M-1-2-500	500	57	20	-10	±3
	M-1-2-1000	1000	60	20	-10	±3
1-2GHz	M-0P6-6-20	20	46	20	-15	±4
	M-0P6-6-30	30	50	20	-10	±4
	M-0P6-6-60	60	53	20	-15	±4
	M-0P6-6-100	100	55	20	-15	±4



(Continued from the table above)

Frequency Range	Model	Minimum Output Power(W)	Gain (dB)	Gain Adjustment(dB)	Harmonic Suppression (dB)	Gain Flatness(dB)
0.6-6GHz	M-0P6-6-160	160	57	20	-12	±4
	M-0P6-6-200	200	60	20	-10	±4
	M-0P6-6-250	250	60	20	-10	±4
	M-0P6-6-300	300	60	20	-10	±5
	M-0P6-6-500	500	60	20	-10	±5

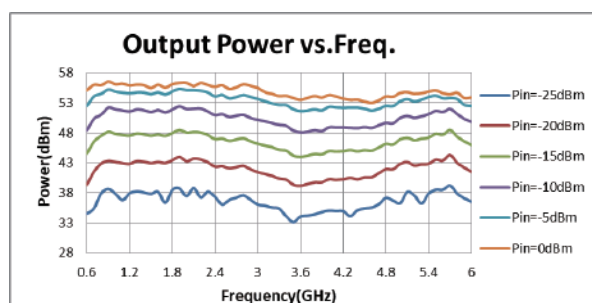
0.6-6GHz 200W

Technical Parameters

Frequency	0.6 - 6GHz
Minimum Output Power	200W
Input Power	0dBm (max)
Gains	≥60dB
Gain Flatness	±4dB (max)
Adjustable Gain	20dB (max)
Input VSWR	2:1 (max)
Harmonic	-10dBc (max)
Noise Floor	-30dBc/MHz (max)
Spurious	-60dBc (max)
Dimensions	4U



● Test Chart





2 -26.5GHz Series

Solid State Power Amplifiers

This series of broadband RF amplifiers utilizes advanced Gallium Nitride (GaN) technology to provide ultra-wide bandwidth, 20-1000W output, great power performance, high efficiency, and long-term reliability. The combination of wideband power, gain, and efficiency enables designers to improve system performance while reducing size and cost. Additionally, amplifiers in this frequency range can be customized to meet your specific requirements.

Available Models

Frequency Range	Model	Minimum Output Power(W)	Gain (dB)	Gain Adjustment(dB)	Harmonic Suppression (dB)	Gain Flatness(dB)
2-6GHz	M-2-6-50	50	50	20	-15	±3
	M-2-6-100	100	55	20	-10	±4
	M-2-6-200	200	60	20	-10	±4
	M-2-6-300	300	58	20	-15	±4
	M-2-6-600	600	60	20	-15	±4
	M-2-6-1000	1000	60	20	-10	±4
2-8GHz	M-2-8-50	50	47	20	-15	±4
	M-2-8-100	100	50	20	-15	±4
	M-2-8-200	200	53	20	-15	±4
	M-2-8-500	500	57	20	-10	±5
2-18GHz	M-2-18-30	30	39	20	-10	±5.5
	M-2-18-50	50	52	20	-10	±5
	M-2-18-100	100	50	20	-10	±5
2 -26.5GHz	M-2 -26 -2	2	30	15	-10	±4

2-18GHz 100W

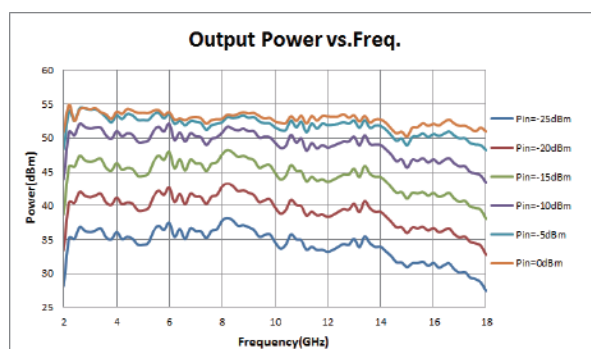
Technical Parameters

Frequency	2-18GHz
Minimum Output Power	100W
Input Power	0dBm (max)
Gain	≥50dB
Gain Flatness	±5dB (max)
Gain Adjustment	20dB (max)
Input VSWR	2:1 (max)
Harmonic	-10dBc (typ)
Acpr	-20dBc (max)
Dimensions	4U





● Test Chart



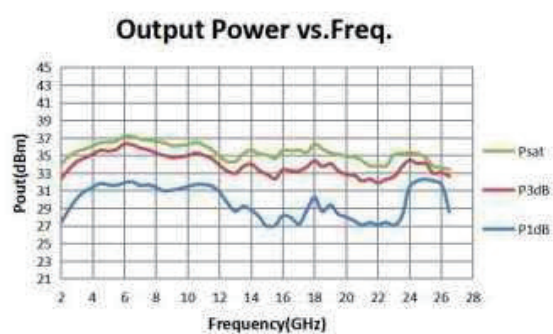
2-26.5GHz 2W

Technical Parameters

Frequency	2-26.5GHz
Minimum Output Power	2W
Maximum Input Power	0dBm
Gain	30dB (min)
Gain Flatness	Typical ± 4 dB
Gain Adjustment	15dB
Input VSWR	2:1 (max)
Overall Dimensions	19", 2U



● Test Chart





6-18GHz Series

Solid State Power Amplifiers

Available Models

Frequency Range	Model	Minimum Output Power(W)	Gain (dB)	Gain Adjustment(dB)	Harmonic Suppression (dB)	Gain Flatness(dB)
6-18GHz	M-6-18-10	10	40	20	-15	±4
	M-6-18-20	20	43	20	-15	±4
	M-6-18-50	50	47	20	-15	±4
	M-6-18-100	100	50	20	-15	±5
	M-6-18-200	200	53	20	-15	±5
	M-6-18-250	250	54	20	-15	±5
	M-6-18-500	500	54	20	-15	±5

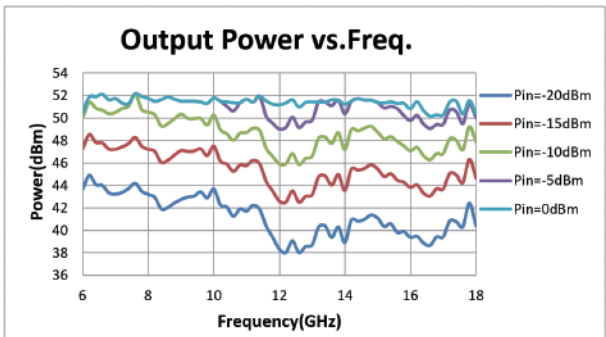
6-18GHz 100W

Technical Parameters

Frequency	6-18GHz
Minimum Output Power	100W
Maximum Input Power	0dBm
Gain	50dB (min)
Gain Flatness	±5dB (max)
Gain Adjustment	20dB Input (max)
Input VSWR	Typical value 1.5:1
Harmonics	Typical -15dBc
Spurious	-60dBc (max)



● Test Chart





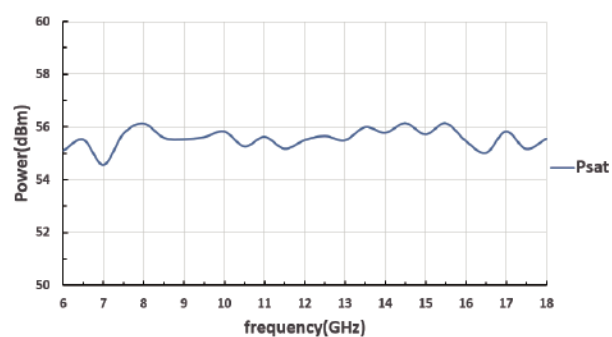
6-18GHz 250W

Technical Parameters

Frequency	6-18GHz
Minimum Output Power	250W
Maximum Input Power	0dBm
Gain	54dB (min)
Gain Flatness	±5dB (max)
Gain Adjustment	20dB (max)
Input VSWR	Typical 1.5:1
Harmonics	Typical -15dBc
Spurious	-60dBc (max)



● Test Chart





18-40GHz Series

Solid State Power Amplifiers

The 18-40GHz broadband RF power amplifier series utilizes advanced Gallium Nitride (GaN) technology to provide high efficiency, ultra-wide bandwidth, 10-500W output, durability, and high reliability. Power amplifiers in this frequency range can also be customized to meet your specific requirements.

Available Models

Frequency Range	Model	Minimum Output Power(W)	Gain (dB)	Gain Adjustment(dB)	Harmonic Suppression (dB)	Gain Flatness(dB)
18-26.5GHz	M-18-26-10	10	40	15	-20	±4
	M-18-26-25	25	45	15	-20	±5
	M-18-26-40	40	50	15	-20	±5
	M-18-26-50	50	50	15	-20	±5
	M-18-26-100	100	50	15	-20	±6
	M-18-26-200	200	50	15	-15	±6
18-40GHz	M-18-40-5	5	37	15	-10	±8
	M-18-40-10	10	40	15	-15	±8
	M-18-40-40	40	50	15	-10	±6
	M-18-40-70	70	49	15	-10	±8
26.5-40GHz	M-26-40-5	5	37	15	-10	±5
	M-26-40-10	10	40	15	-10	±5
	M-26-40-25	25	45	15	-10	±8
	M-26-40-50	50	50	15	-10	±8
	M-26-40-100	100	53	15	-10	±8
	M-26-40-120	120	51	15	-10	±8
	M-26-40-160	160	50	15	-15	±8
	M-26-40-200	200	50	15	-10	±8
	M-26-40-500	500	55	15	-10	±8

18-26.5GHz 600w

Technical Parameters

Frequency	18-26.5GHz
Minimum Output Power	600W
Maximum Input Power	10dBm
Gain	59dB (min)
Gain Flatness	typical ±3dB
Gain Adjustment Range	25dB
Input VSWR	1.5 (max)
Harmonics	-10dBc (max)
Spurious	-60dBc (max)



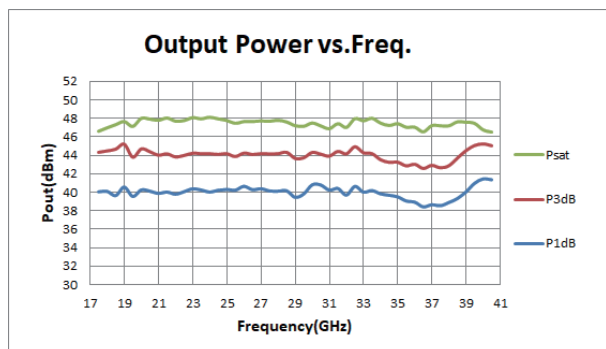


18-40GHz 40w

Technical Parameters

Frequency	18-40GHz
Minimum Output Power	40W
Maximum Input Power	0dBm
Gain	50dB (max)
Gain Flatness	Typical ± 6 dB
Gain Adjustment	15dB
Input VSWR	2 (max)
Harmonics	-10dBc (max)
Spurious	-60dBc (max)

● Test Chart

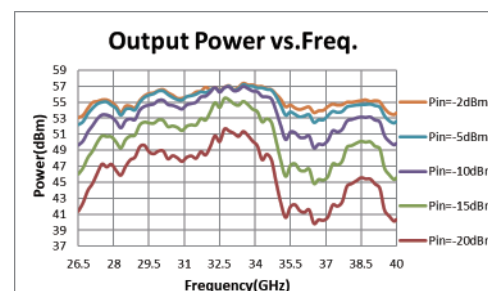


26.5-40GHz 200W

Technical Parameters

Frequency	26.5-40GHz
Minimum Output Power	200W
Maximum Input Power	3dBm
Gain	50dB (min)
Gain Flatness	± 8 dB (max)
Gain Adjustment	15dB
Spurious	-60dBc (max)
Overall Dimensions	635*432*333mm

● Test Chart





For System above 40 GHz

Solid State Power Amplifier

This series of microwave RF amplifiers is based on the latest Gallium Nitride (GaN) technology, offering broadband performance up to 110GHz, high output power (up to 1W), wide dynamic range, and high conversion efficiency. Amplifiers in this frequency range can also be customized to meet your specific requirements.

Product features

- Multi-octave broadband performance
- High output power
- Wide dynamic range
- High-efficiency GaN technology
- Low power consumption
- Low spurious signals
- Extremely load-resistant
- Built-in control, monitoring and protection circuits
- Overvoltage, reverse polarity, over temperature and high VSWR protection
- CE,ROHS certification

Available Models

Frequency Range	Model	Minimum Output Power(W)	Gain (dB)	Gain Adjustment(dB)	Harmonic Suppression (dB)	Gain Flatness(dB)
10M-50G	M-10M-50-1	30	0.01-20G: 46 20-50G: 41	15	-10	±5
36-50G	M-36-50-30	30	48	15	-20	±8
40-54G	M-40-54-20	20	43	15	-20	±8
50-65G	M-50-65-6	6	38	15	-20	±8
50-67G	M-50-67-10	10	40	15	-20	±8
50-75G	M-50-75-5	5	37	15	-20	±10
75-81G	M-75-81-2	2	40	15	-20	±10
81-86G	M-81-86-10	10	40	15	-20	±10
92-96G	M-92-96-10	10	40	15	-20	±10

40-54GHz 20W

Technical Parameters

Frequency	92-96GHz
Minimum Output Power	20W
Maximum Input Power	0dBm
Gain	43dB (min)
Gain Flatness	±8dB (max)
Gain Adjustment	15dB (max)
Input VSWR	Typical value 1.5
Harmonics	Typical -20 dBc
Spurious	-60dBc (max)





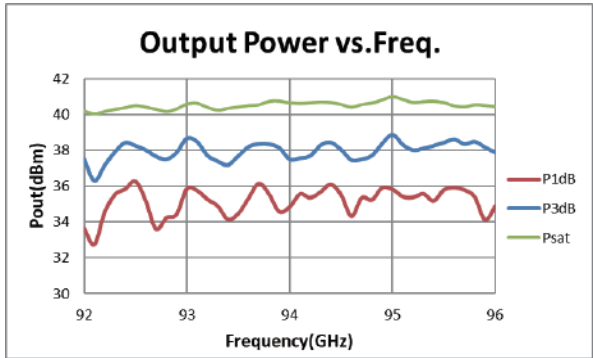
92-96GHz 10W

Technical Parameters

Frequency	92-96GHz
Minimum Output Power	10W
Maximum Input Power	10dBm
Gain	40dB (max)
Gain Flatness	± 10 dB (max)
Gain Adjustment	15dB (max)
Input VSWR	Typical value 1.5
Harmonics	Typical -20 dBc
Spurious	-60 dBc (max)



● Test Chart





Optional Pulse Solid State Power Amplifier

Model	Frequency Range	Minimum Output Power(W)	Minimum Small Signal Gain (dB)	Gain Adjustment (b@)	2nd Harmonic @Output(dBc)	Gain Flatness
MP-0P8 - 2P5 - 1000	0.8 - 2.5	1000	63	20	-15	±2
MP-0P8 - 2P5 - 2000	0.8 - 2.5	2000	66	20	-15	±2
MP-0P8 - 2P5 - 8000	0.8 - 2.5	8000	72	20	-15	±2
MP- 1 - 2P5 - 3000	1 - 2.5	3000	68	20	-15	±3
MP- 1P2 - 1P4 - 500	1.2 - 1.4	500	60	20	-15	±3
MP- 1P2 - 1P4 - 1000	1.2 - 1.4	1000	63	20	-15	±3
MP- 1P2 - 1P4 -3000	1.2 - 1.4	3000	68	20	-15	±3
MP- 1P2 - 1P4 - 4000	1.2 - 1.4	4000	69	20	-15	±3
MP- 1 P2 - 1P4 -5000	1.2 - 1.4	5000	70	20	-15	±3
MP- 1P2 - 1P4 - 8000	1.2 - 1.4	8000	72	20	-15	±3
MP- 1P2 - 1P4 - 10000	1.2 - 1.4	10000	73	20	-15	±3
MP- 1 - 1P5 - 8000	1 - 1.5	8000	72	20	-15	±3
MP- 1P5 -2 - 6500	1.5 - 2	6500	71	20	-15	±3
MP- 1 - 2 - 1000	1 - 2	1000	63	20	-15	±3
MP- 1 - 2 - 2000	1 - 2	2000	66	20	-15	±3
MP- 1 - 2 -4000	1 - 2	4000	69	20	-15	±3
MP- 1 - 2 - 8000	1 - 2	8000	72	20	-15	±3
MP- 1 - 2 - 10000	1 - 2	10000	73	20	-15	±3
MP- 1 - 2 - 12000	1 - 2	12000	74	20	-15	±3
MP- 1 - 2 - 18000	1 - 2	18000	76	20	-15	±3
MP- 1 - 2 - 20000	1 - 2	20000	77	20	-15	±3
MP- 2 - 4 -3000	2 - 4	3000	68	20	-15	±4
MP- 2 - 4 - 4000	2 - 4	4000	69	20	-15	±4
MP- 2 - 4 - 6000	2 - 4	6000	71	20	-15	±4
MP- 2 - 4 - 8000	2 - 4	8000	72	20	-15	±4
MP- 2 -4 - 10000	2 - 4	10000	73	20	-15	±4
MP- 2 -4 - 12000	2 - 4	12000	74	20	-15	±4
MP- 2 -4 - 15000	2 - 4	15000	75	20	-15	±4
MP- 2P7 - 3P1 - 1000	2.7-3.1	1000	63	20	-15	±4
MP- 2P7 - 3P1 - 2000	2.7-3.1	2000	66	20	-15	±4
MP- 2P7 - 3P1 -4000	2.7-3.1	4000	69	20	-15	±4
MP- 2P7 - 3P1 - 6000	2.7-3.1	6000	71	20	-15	±4
MP- 2P7 - 3P1 - 8000	2.7-3.1	8000	72	20	-15	±4
MP- 2P5 - 7P5 - 2000	2.5-7.5	2000	66	20	-15	±4
MP-4 - 8 -4000	4 - 8	4000	69	20	-15	±4
MP-4 - 8 - 7400	4 - 8	7400	71	20	-15	±4
MP- 4 - 8 - 10000	4 - 8	10000	73	20	-15	±4
MP- 4 - 8 - 12000	4 - 8	12000	74	20	-15	±4
MP- 8 -10 - 10000	8 -10	10000	73	20	-15	±4



(Continued from the table above)

Model	Frequency Range	Minimum Output Power(W)	Minimum Small Signal Gain (dB)	Gain Adjustment (b@)	2nd Harmonic @Output(dBc)	Gain Flatness
MP- 8 -12 - 4000	8-12	4000	69	20	-15	±4
MP- 8-12 - 8300	8-12	8300	72	20	-15	±4
MP- 8 -12 - 20000	8-12	20000	74	20	-15	±4
MP- 8P8-10P4 - 23000	8.8-10.4	23000	78	20	-15	±4
MP-12-18-3000	12-18	3000	68	20	-15	±4
MP-12-18-5700	12-18	5700	71	20	-15	±4
MP-6-18-1000	6-18	1000	63	20	-15	±4
MP-6-18-2000	6-18	2000	66	20	-15	±4



Power Amplifier Module

All of our power amplifier modules are all solid-state amplifier modules using gan devices, featuring high bandwidth, high efficiency and high reliability. They are mainly used in the fields of test and measurement instruments, communication or interference, and aviation control. The product has gain adjustment, temperature detection and alarm protection, power detection and alarm protection, fan detection and alarm protection, current detection and alarm protection and other functions.

Options

- PIND power indication (built-in coupler)
- USUPAC or DC
- GADJ 20dB adjustment range
- Remote monitoring via LAN
- Remote monitoring via RS232
- Remote monitoring via RS485

Available Models

Model	Frequency Range	Minimum Output Power(W)	Minimum Small Signal Gain (dB)	2nd Harmonic @Output(dBc)	Gain Flatness
MM -10M-1-30	0.01-1	30	49	-15	±2
MM - 0P1-12 - 0.6	0.12-12	0.6	32	-15	±1
MM - 0P4 - 0P5 - 50	0.42-0.52	50	53	-15	±1
MM - 50M - 6 - 20	0.05-6	20	45	-15	±3
MM - 0P7 - 2P7 - 20	0.7-2.7	20	45	-15	±1.5
MM - 0P7 - 4P2 - 20	0.7-4.2	20	47	-15	±3
MM - 0P7 - 6 - 16	0.7-6	16	47	-15	±3.5
MM - 0P7 - 6 - 50	0.7- 6	50	53	-15	±4
MM - 1P8 - 2P2 - 80	1.8-2.2	80	53	-15	±3
MM - 0P8 - 18 - 1	0.8-18	1	35	-12	±1.5
MM - 2 - 6 - 20	2-6	20	47	-15	±2
MM - 2 - 8 - 50	2-8	50	50	-15	±3
MM - 2 - 18 - 10	2-18	10	44	-15	±4
MM - 2-18-16	2-18	16	46	-15	±4
MM - 2 -18 -20	2-18	20	46	-15	±4
MM - 2 -18 - 30	2-18	30	48	-15	±4
MM- 2 -18 - 40	2-18	40	49	-15	±4
MM- 6 - 18 - 5	6-18	5	40	-15	±3
MM- 6 - 18 - 10	6-18	10	43	-15	±3
MM- 6 - 18 - 20	6-18	20	49	-15	±3
MM- 6 - 18 - 50	6-18	50	54	-15	±3
MM- 6 - 18-100	6-18	100	55	-15	±3.5



(Continued from the table above)

Model	Frequency Range	Minimum Output Power(W)	Minimum Small Signal Gain (dB)	2nd Harmonic @Output(dBc)	Gain Flatness
MM - 6 - 18 - 200	6 - 18	200	55	-15	±3.5
MM - 8 - 12 - 30	8 - 12	30	50	-35	±3
MM - 8 - 12 - 50	8 - 12	50	51	-35	±3
MM - 8 - 15 - 5	8 - 15	5	41	-35	±3
MM - 9 - 11 - 50	9 - 11	50	51	-30	±2.5

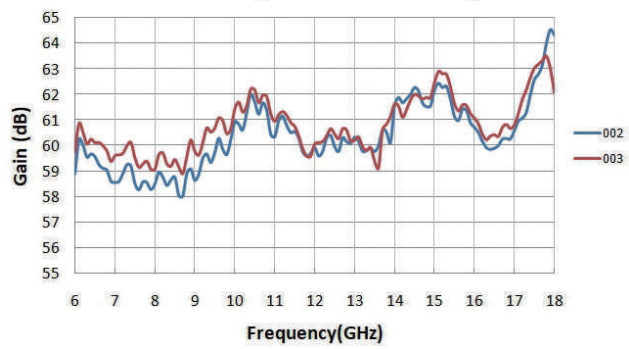
Power Amplifier Module

Model	Frequency Range	Minimum Output Power(W)	Minimum Small Signal Gain (dB)	2nd Harmonic @Output(dBc)	Gain Flatness
MM - 18 - 26 - 1	18-26.5	1	32	-15	±2
MM - 18 - 26 - 5	18-26.5	5	38	-15	±3
MM - 18 - 26 - 10	18-26.5	10	45	-15	±3
MM - 18 - 26 - 20	18-26.5	20	46	-15	±3
MM - 18 - 26 - 40	18-26.5	40	49	-15	±3
MM - 18 - 26 - 50	18-26.5	50	50	-15	±4
MM - 26 - 35 - 15	26.5-35	15	46	-15	±5
MM - 26 - 35 - 20	26.5-35	20	48	-15	±5
MM - 26 - 40 - 4	26.5-40	4	38	-15	±4
MM - 26 - 40 - 5	26.5-40	5	40	-12	±4
MM - 26 - 40 - 10	26.5-40	10	45	-15	±4
MM - 26 - 40 - 15	26.5-40	15	45	-15	±4
MM - 26 - 40 - 20	26.5-40	20	48	-15	±4
MM - 26 - 40 - 40	26.5-40	40	50	-15	±4
MM - 40 - 57 - 0.1	40-57	0.1	24	-15	±2
MM - 44 - 50 - 1	44-50	1	33	-15	±2
MM - 47 - 57 - 2	47-57	2	35	-15	±2
MM - 57 - 63 - 1	57-63	1	33	-15	±2
MM - 89 - 96 - 1	89-96	1	33	-15	±2
MM - 75 - 110 - 1	75-110	1	33	-15	±4
MM - 88 - 100 - 1	88-100	1	33	-15	±3
MM - 90 - 110 - 1	90-110	1	33	-15	±3

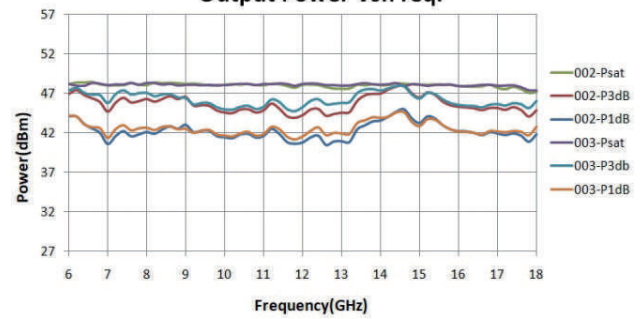


6-18GHz 50W Module Test Chart

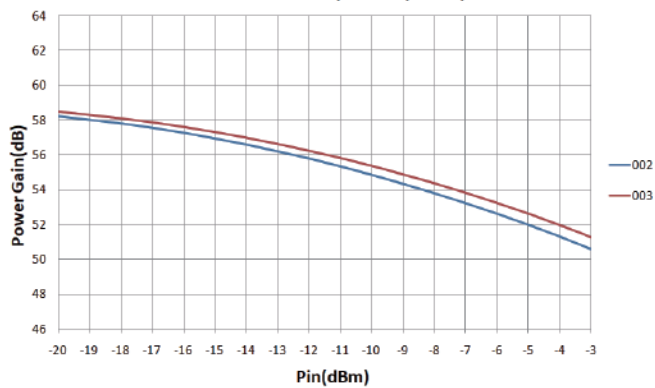
Small Signal Gain vs.Freq.



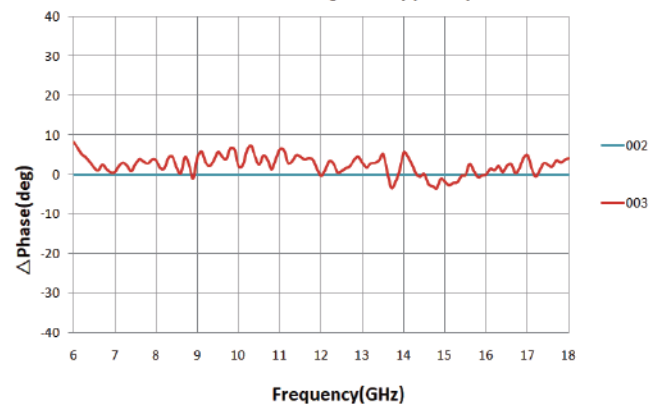
Output Power Vs.Freq.



Gain Compression(12GHz)

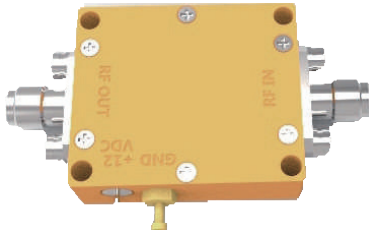


Phase Matching vs. Freq.(0dbm)

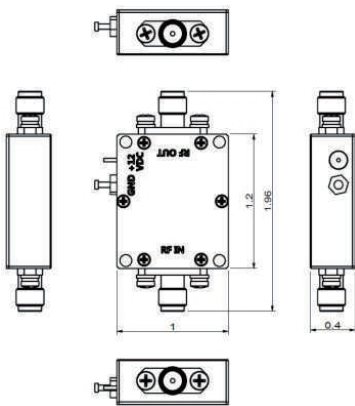




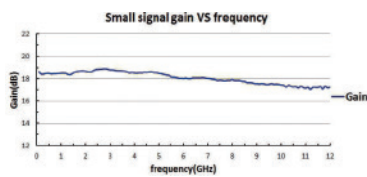
0.1-12 GHz 0.6W Module



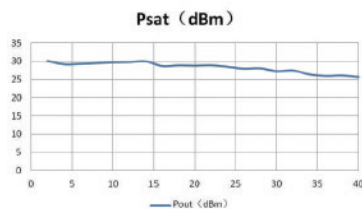
- Dimensions/mm



- Small signal test chart



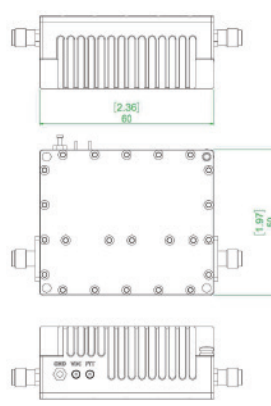
- Large signal test chart



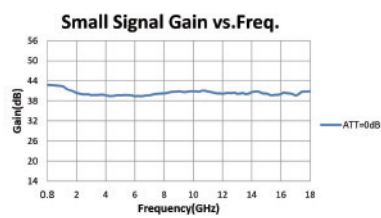
0.8 - 18 GHz 1W Module



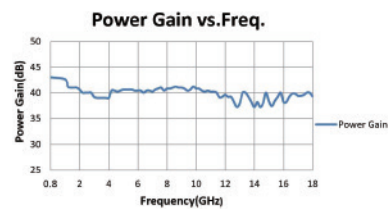
- Dimensions/mm



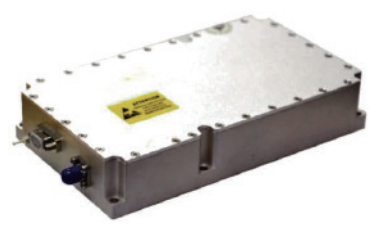
- Small signal test chart



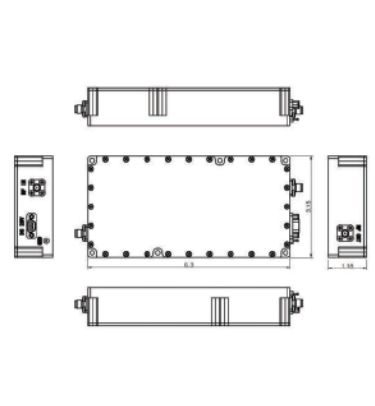
- Large signal test chart



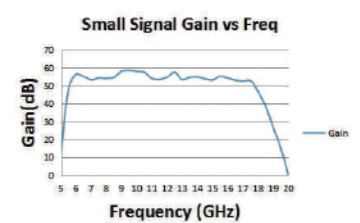
2-18 GHz 10W Module



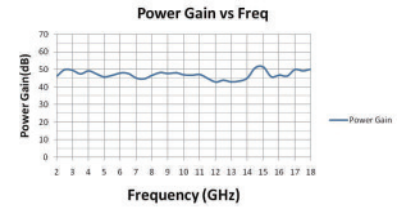
- Dimensions/mm



- Small signal test chart

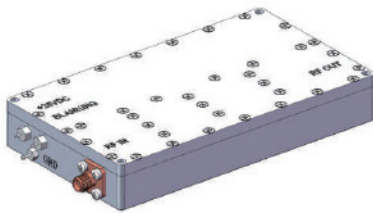


- Large signal test chart

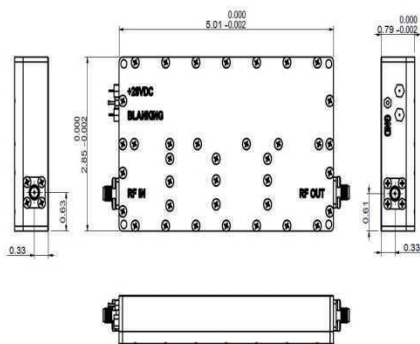




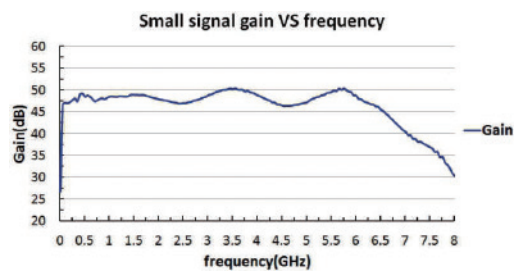
50M-6GHz 20W Module



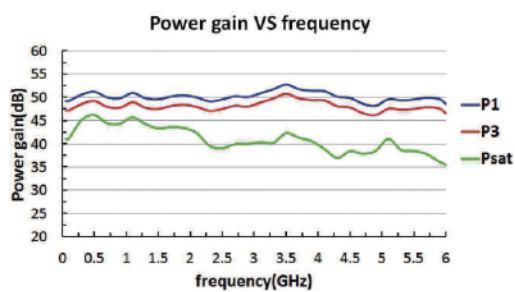
- Dimensions/mm



- Small signal test chart



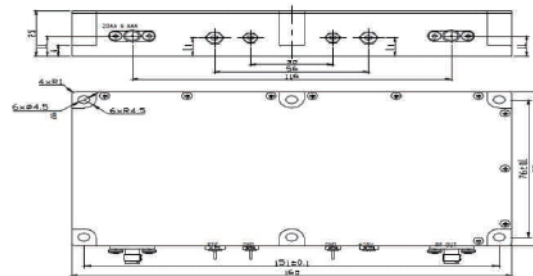
- Large signal test chart



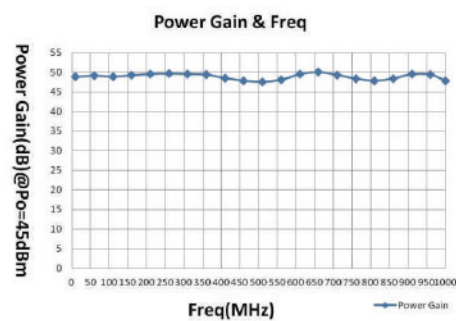
0.01-1 GHz 30W Module



- Dimensions/mm

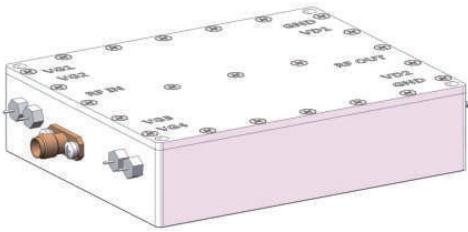


- Small signal test chart

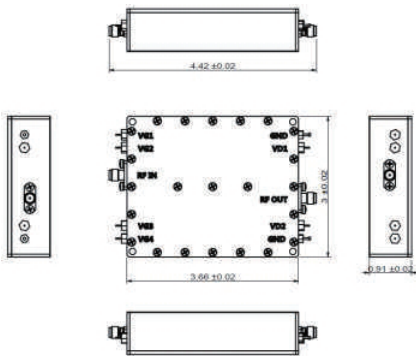




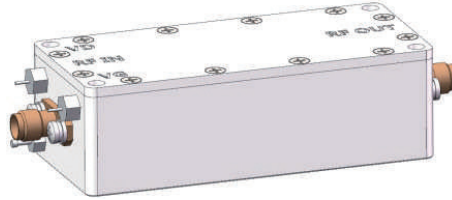
2-6GHz 20W Module



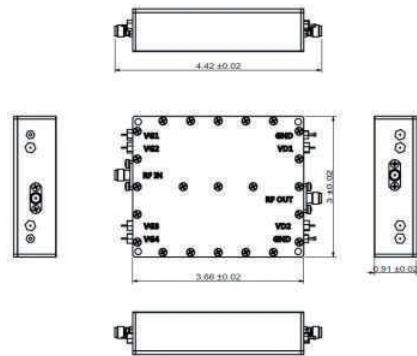
● Dimensions/mm



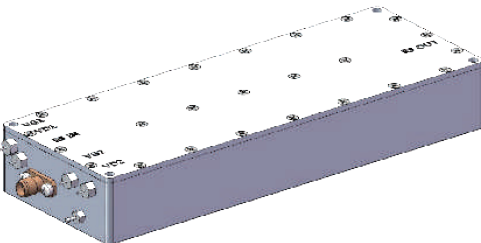
2-8GHz 50W Module



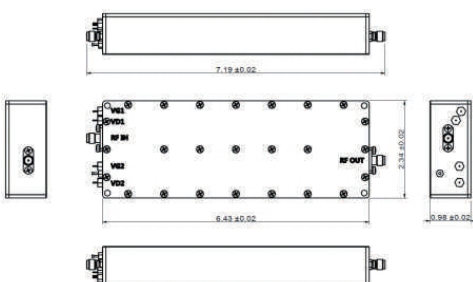
● Dimensions/mm



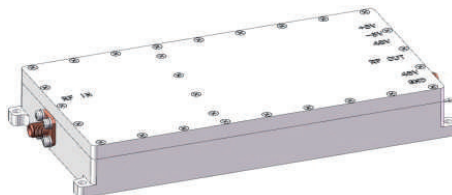
0.7-2.7GHz 20W Module



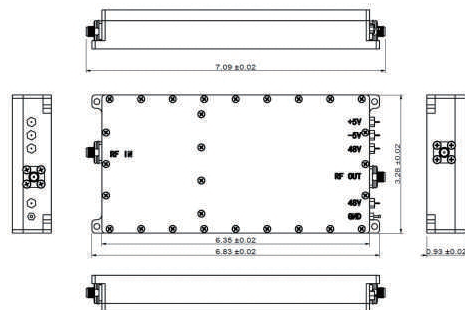
● Dimensions/mm



1.8-2.2GHz 80W Module



● Dimensions/mm





EMC Series

10kHz-40GHz 200V/m Series Amplifiers

Serial Number	Model No.	Specification	Output Power	Gain
1	M-9K-100M-3500	9kHz-10MHz	3500W	66
2	M-80M-1-1200	80MHz-1GHz	1200W	63
3	M-0P6-6-300	0.6GHz-6GHz	300W	60
4	M-6-18-250	6GHz-18GHz	250W	54
5	M-18-26-50	18GHz-26.5GHz	50W	50
6	M-26-40-50	26.5GHz-40GHz	50W	50

9kHz – 100MHz 3500W Solid State Power Amplifier





**80 MHz -1 GHz 1 KW Solid State
Power Amplifier**



**6-18 GHz 250W Solid State
Power Amplifier**



**V-Band 400W Solid State
Power Amplifier**



**Q-Band 500W Solid State
Power Amplifier**





C-Band 1900W Solid State Power Amplifier



K-Band 2000W Solid State Power Amplifier





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