



Advanced Test Equipment Corp.

Rentals • Sales • Calibration • Service

Test & Measurement Instrument Amplifiers

DATA SHEET / 4T-101

MODELS:

MPA-0G6-6G-20
MPA-0G6-6G-60
MPA-0G6-6G-100
MPA-0G6-6G-200
MPA-0G6-6G-500
MPA-2G-6G-100
MPA-2G-6G-200
MPA-2G-6G-300
MPA-2G-6G-600
MPA-2G-8G-50
MPA-2G-8G-100
MPA-2G-18G-20

MPA-2G-18G-30
MPA-2G-18G-50
MPA-2G-26G5-2
MPA-6G-18G-10
MPA-6G-18G-30
MPA-6G-18G-50
MPA-6G-18G-100
MPA-6G-18G-250
MPA-8G-12G-100
MPA-18G-26G5-10
MPA-18G-26G5-25
MPA-18G-26G5-50
MPA-18G-26G5-100

MPA-18G-40G-10
MPA-18G-40G-20
MPA-18G-40G-40
MPA-26G5-40G-5
MPA-26G5-40G-10
MPA-26G5-40G-25
MPA-26G5-40G-50
MPA-26G5-40G-100
MPA-37G-43G-5
MPA-40G-67G-1
MPA-50G-67G-5





Features and Benefits

- > Based on state-of-the-art GaN PA modules
- > Wideband frequency coverage for modern applications
- > High continuous power across the band
- > High linearity for wideband communications testing
- > Integrated protection circuitry
- > Variable gain adjustment
- > High-resolution display shows amplifier status
- > Burn-in and ageing tested for long-term reliability
- > Advanced electrical test using state-of-the-art measurement equipment

Applications Expertise, Reliability and Support

Not all amplifiers are created equal, so how can you be certain that an amplifier will work for your needs? You deserve to be confident that the amplifiers used with your test-and-measurement lab benches will meet the requirements of your specific applications, are reliable, and are equally well-supported pre-and post-sale. When it comes to application expertise, reliability and support, there is no company that does it better than Maury Microwave.

With more than 60 years of experience, we are the application experts, having designed, manufactured, trained and supported turnkey measurement and modeling device characterization solutions. Our expertise includes specialization in 4G and 5G base station and handset transistor model extraction and validation, RADAR transistor model extraction and validation, 4G, 5G, WiFi and WLAN PA and FEM design and design-validation test (DVT), as well as general 50Ω and non-50Ω characterization.

We are uniquely positioned to combine our measurement and load pull expertise with modern solid-state power amplifier design practices to deliver best-in-class instrument amplifiers. Our amplifiers satisfy a wide range of application-specific requirements including simultaneous high-power, wide bandwidth, low harmonic power and high linearity.

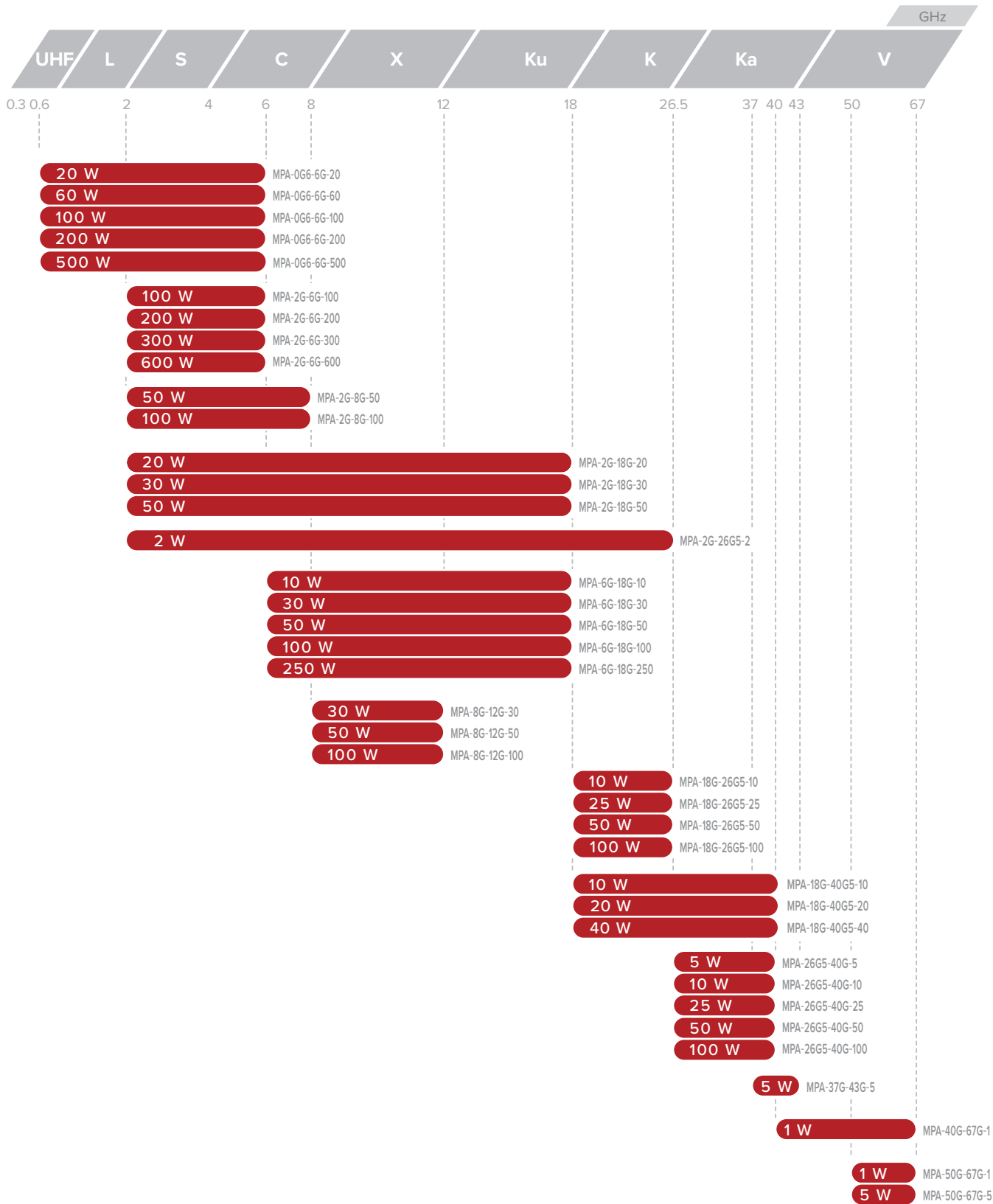
We make use of our extensive test facilities to ensure our amplifiers meet your reliability expectations, testing each shipped unit according to our high standards. Burn-in and ageing tests include prolonged storage under extreme temperature conditions, extended amplifier operation over the entire rated temperature range, and elongated usage at maximum power under CW and pulsed-CW conditions.

After burn-in and ageing, each instrument amplifier is tested using a state-of-the-art vector-receiver measurement system. This system allows us to independently measure power at the fundamental, harmonic and intermodulation frequencies using single-tone and two-tone input signals, as well as true ACPR using wideband modulated signals. Not only are MPA-series amplifiers best-in-class, but so are our test methodologies.

Maury Microwave, the best choice for applications expertise, reliability and support.

Our application team is here to support you through your evaluation, integration and support process.

Amplifier Frequency Map

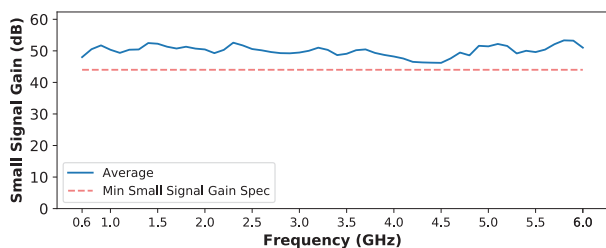
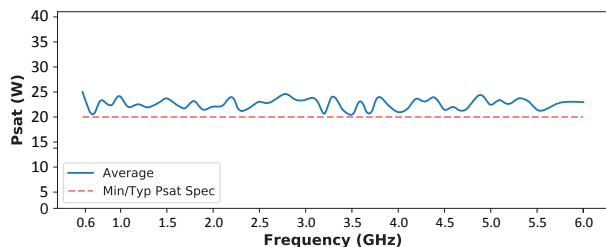


Available Models

Model Series	Frequency (GHz)	Typical Psat (W)	Min. Psat (W)	Min. Small Signal Gain (dB)	Gain Adj. (dB) Max.	Typ. 2nd Harmonic Power @ Psat (dBc)	Page Reference
MPA-0G6-6G-20	0.6-6	20	20	46	20	-15	4
MPA-0G6-6G-60	0.6-6	60	60	50	20	-15	5
MPA-0G6-6G-100	0.6-6	100	100	53	20	-15	6
MPA-0G6-6G-200	0.6-6	200	200	50	20	-15	7
MPA-0G6-6G-500	0.6-6	500	500	50	20	-15	8
MPA-2G-6G-100	2-6	100	100	52	20	-15	9
MPA-2G-6G-200	2-6	200	200	50	20	-15	8
MPA-2G-6G-300	2-6	300	300	50	20	-15	9
MPA-2G-6G-600	2-6	600	600	55	20	-15	10
MPA-2G-8G-50	2-8	50	50	47	20	-15	11
MPA-2G-8G-100	2-8	100	100	52	20	-15	12
MPA-2G-18G-20	2-18	20	20	41	20	-15	15
MPA-2G-18G-30	2-18	30	30	47	20	-15	16
MPA-2G-18G-50	2-18	50	50	49	20	-15	15
MPA-2G-26G5-2	2-26.5	2	2	35	15	-15	16
MPA-6G-18G-10	6-18	10	10	43	20	-15	19
MPA-6G-18G-30	6-18	30	30	45	20	-15	20
MPA-6G-18G-50	6-18	50	50	50	20	-15	19
MPA-6G-18G-100	6-18	100	100	52	20	-15	20
MPA-6G-18G-250	6-18	250	250	53	20	-15	21
MPA-8G-12G-100	8-12	100	100	52	20	-35	22
MPA-18G-26G5-10	18-26.5	10	10	40	15	-15	25
MPA-18G-26G5-25	18-26.5	25	20	45	15	-15	26
MPA-18G-26G5-50	18-26.5	50	50	51	15	-15	25
MPA-18G-26G5-100	18-26.5	100	100	51	15	-15	26
MPA-18G-40G-10	18-40	10	10	40	15	-15	27
MPA-18G-40G-20	18-40	20	20	43	15	-15	28
MPA-18G-40G-40	18-40	40	40	46	15	-15	29
MPA-26G5-40G-5	26.5-40	5	5	40	15	NA	32
MPA-26G5-40G-10	26.5-40	10	10	40	15	NA	33
MPA-26G5-40G-25	26.5-40	25	20	43	15	NA	34
MPA-26G5-40G-50	26.5-40	50	50	43	15	NA	30
MPA-26G5-40G-100	26.5-40	100	100	50	15	NA	31
MPA-37G-43G-5	37-43	5	5	33	15	NA	32
MPA-40G-67G-1	40-67	1	1	26	15	NA	33
MPA-50G-67G-5	50-67	5	5	33	15	NA	34

MPA-0G6-6G-20

0.6-6 GHz, 20W



Specifications

Frequency Range:0.6-6 GHz
Psat:Typical 20 W, Minimum 20 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 46 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 13 dB back off:Typical -39 dBc
IM3' @ 3 dB back off:.....Typical -27 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....EAR99
Warranty:.....24 months

* 10 MHz Tone spacing

Mechanical Specifications

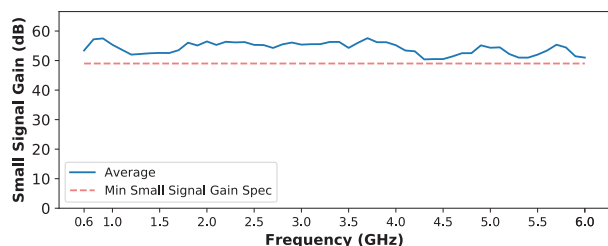
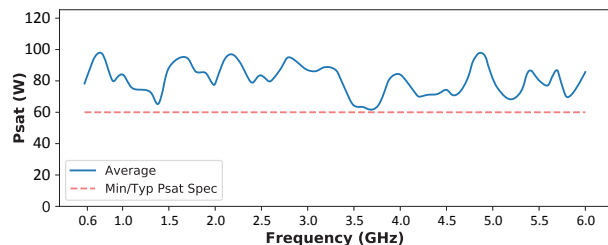
Enclosure Type:.....B
Weight:26 lbs
RF Input/Output:SMA Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-0G6-6G-60

0.6-6 GHz, 60W



Specifications

Frequency Range:0.6-6 GHz
Psat:Typical 60 W, Minimum 60 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 50 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 13 dB back off:Typical -39 dBc
IM3' @ 3 dB back off:.....Typical -25 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....EAR99
Warranty:.....24 months

* 10 MHz Tone spacing

Mechanical Specifications

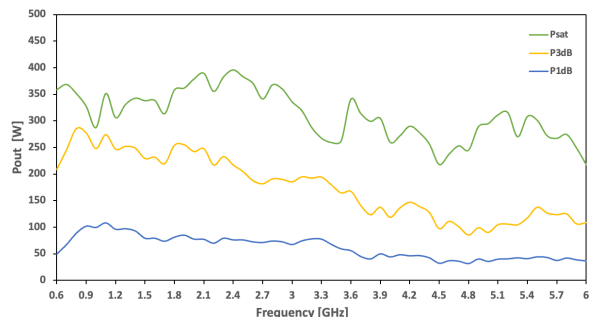
Enclosure Type:.....A
Weight:42.3 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-0G6-6G-100

0.6-6 GHz, 100W



Default Options:

- > Remote Control TCPIP and RS485
- > Protective circuits: Temperature, input power, module

Optional:

- > MPA-COUP Integrated coupler for forward and reflected power detection
- > MPA-INPUT-REAR RF Input port on the rear
- > MPA-OUTPUT-REAR RF Output port on the rear
- > MPA-SAMPLING RF Forward sampling port

Specifications

Frequency Range:0.6-6 GHz
Psat:Typical 100 W, Minimum 100 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 50 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3* @ 13 dB back off:Typical -39 dBc
IM3* @ 3 dB back off:.....Typical -25 dBc
Unconditionally Stable
VSWR Load @Psat:3:1*
ECCN:.....3A001.b4.a4
Warranty:.....24 months

* 10 MHz Tone spacing

*Infinite protection with Option MPA-COUP

Mechanical Specifications

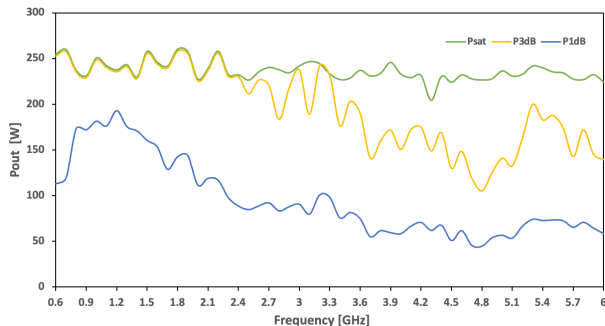
Enclosure Type:C
Weight:84 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp.:.....-25°C to 65°C

MPA-0G6-6G-200

0.6-6 GHz, 200W



Default Options:

- > Remote Control TCPIP and RS485
- > Protective circuits: Temperature, input power, module

Optional:

- > MPA-COUP Integrated coupler for forward and reflected power detection
- > MPA-INPUT-REAR RF Input port on the rear
- > MPA-OUTPUT-REAR RF Output port on the rear
- > MPA-SAMPLING RF Forward sampling port

Specifications

Frequency Range:0.6-6 GHz
Psat:Minimum 200 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 50 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1[†]
ECCN:.....3A001.b4.a4
Warranty:.....24 months

* 10 MHz Tone spacing

[†]Infinite protection with Option MPA-COUP

Mechanical Specifications

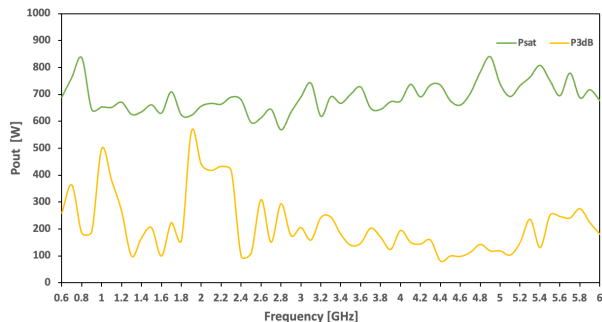
Enclosure Type:C
Weight:84 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-0G6-6G-500

0.6-6 GHz, 500W



Default Options:

- > Remote Control TCPIP and RS485
- > Protective circuits: Temperature, input power, module

Optional:

- > MPA-COUP Integrated coupler for forward and reflected power detection
- > MPA-INPUT-REAR RF Input port on the rear
- > MPA-OUTPUT-REAR RF Output port on the rear
- > MPA-SAMPLING RF Forward sampling port
- > MPA-LIQCOOL Liquid Cooling



Specifications

Frequency Range:0.6-6 GHz
Psat:Minimum 500 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 50 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1[†]
ECCN:3A001.b4.a4
Warranty:.....24 months

** 10 MHz Tone spacing*

[†]Infinite protection with Option MPA-COUP

Mechanical Specifications

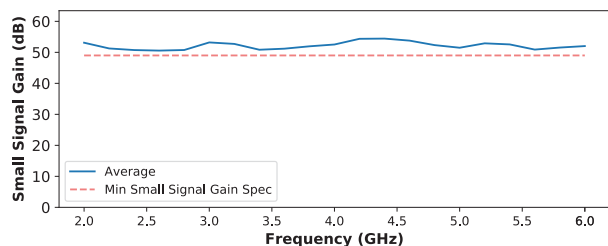
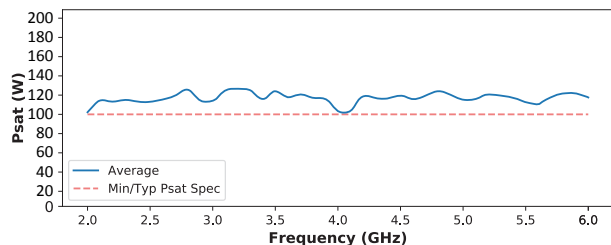
Enclosure Type:.....E
Weight:500 lbs
RF Input:.....Type N Female
RF Output:7/16

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C
Voltage.....3 phase 208 V
Current.....27 A

MPA-2G-6G-100

2-6 GHz, 100W



Specifications

Frequency Range:2-6 GHz
Psat:Typical 100 W, Minimum 100 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 50 dB
Gain Flatness:.....Typical ± 2.5 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 13 dB back off:Typical -44 dBc
IM3' @ 3 dB back off:.....Typical -29 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....3A001.b4.a4
Warranty:.....24 months

* 10 MHz Tone spacing

Mechanical Specifications

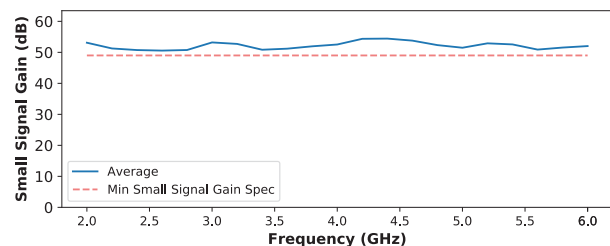
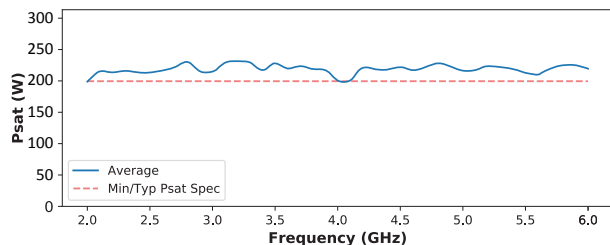
Enclosure Type:.....A
Weight:48 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-2G-6G-200

2-6 GHz, 200W



Specifications

Frequency Range:2-6 GHz
Psat:Typical 200 W, Minimum 200 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 50 dB
Gain Flatness:.....Typical ± 2.5 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....3A001.b4.a4
Warranty:.....24 months

Mechanical Specifications

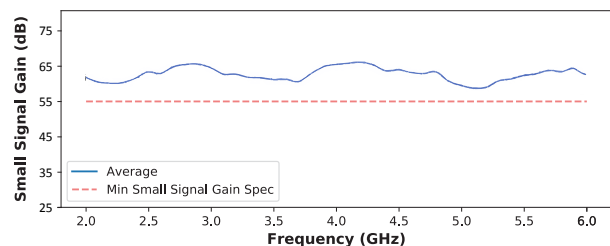
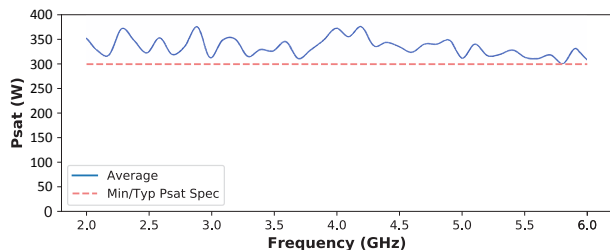
Enclosure Type:.....C
Weight:64 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp.:.....0°C to 50°C
Storage Temp.:.....-25°C to 65°C

MPA-2G-6G-300

2-6 GHz, 300W



Specifications

Frequency Range:2-6 GHz
Psat:Typical 300 W, Minimum 300 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 55 dB
Gain Flatness:.....Typical ± 2.5 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....3A001.b4.a4
Warranty:.....24 months

Mechanical Specifications

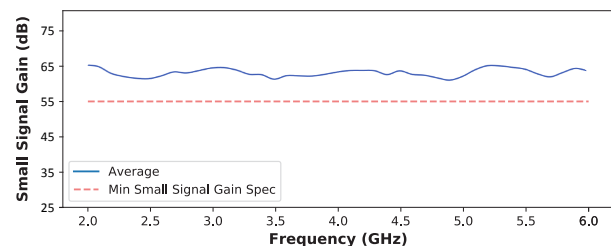
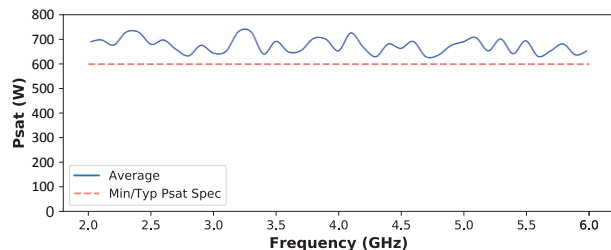
Enclosure Type:.....D
Weight:143 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-2G-6G-600

2-6 GHz, 600W



Specifications

Frequency Range:2-6 GHz
Psat:Typical 600 W, Minimum 600 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 55 dB
Gain Flatness:.....Typical ± 2.5 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:.....Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....3A001.b4.a4
Warranty:.....24 months

Mechanical Specifications

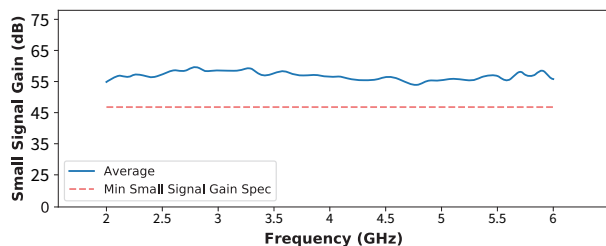
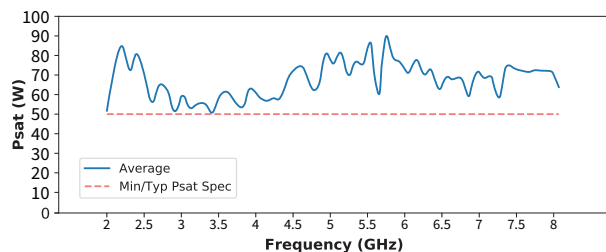
Enclosure Type:.....Contact Maury
Weight:277 lbs
RF Input/Output:Type N
Female/716

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-2G-8G-50

2-8 GHz, 50W



Specifications

Frequency Range:2-8 GHz
Psat:Typical 50 W, Minimum 50 W
Input Power:.....Maximum 2 dBm
Small Signal Gain:Minimum 47 dB
Gain Flatness:.....Typical ± 3 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2.1:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 3 dB back off:.....Typical -18 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:EAR99
Warranty:.....24 months

* 10 MHz Tone spacing

Mechanical Specifications

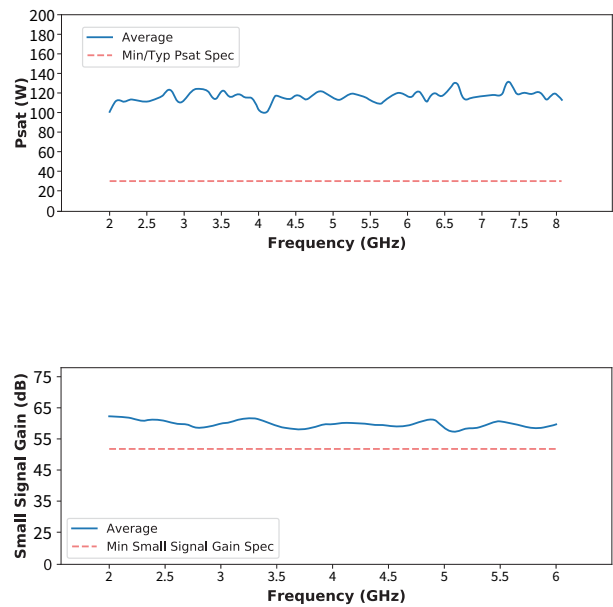
Enclosure Type:A
Weight:41 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-2G-8G-100

2-8 GHz, 100W



Specifications

Frequency Range:2-8 GHz
Psat:Typical 100 W, Minimum 100 W
Input Power:.....Maximum 2 dBm
Small Signal Gain:Minimum 52 dB
Gain Flatness:.....Typical ±3 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 3 dB back off:.....Typical -18 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:3A001.b4.b1
Warranty:.....24 months

* 10 MHz Tone spacing

Mechanical Specifications

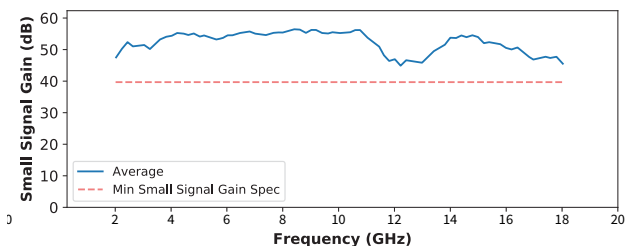
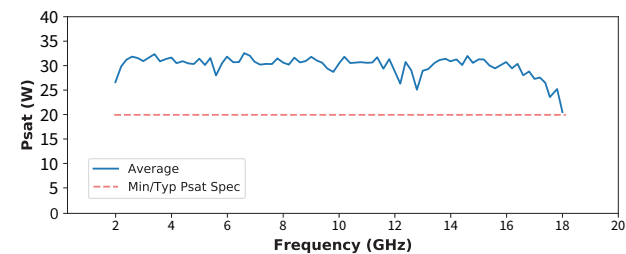
Enclosure Type:A
Weight:43 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-2G-18G-20

2-18 GHz, 20W



Specifications

Frequency Range:2-18 GHz
Psat:Typical 20 W, Minimum 20 W
Input Power:.....Maximum 5 dBm
Small Signal Gain:Minimum 41 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 13 dB back off:Typical -38 dBc
IM3' @ 3 dB back off:.....Typical -20 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....EAR99
Warranty:.....24 months

* 10 MHz Tone spacing

Mechanical Specifications

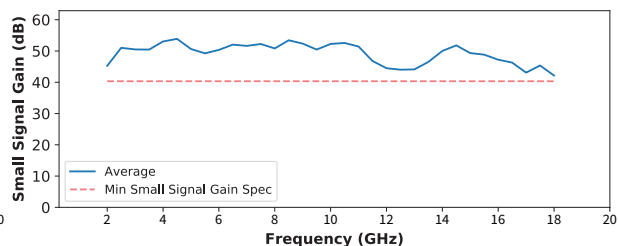
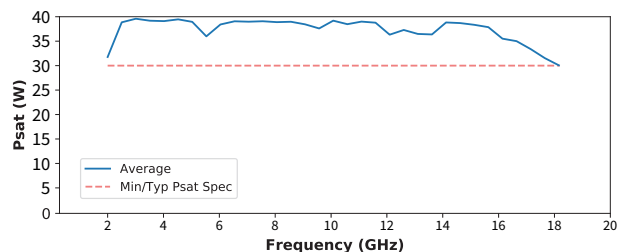
Enclosure Type:.....B
Weight:17.6 lbs
RF Input/Output:SMA Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-2G-18G-30

2-18 GHz, 30W



Specifications

Frequency Range:2-18 GHz
Psat:Minimum 30 W
Input Power:.....Maximum 5 dBm
Small Signal Gain:Minimum 47 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2.1:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 13 dB back off:Typical -38 dBc
IM3' @ 3 dB back off:.....Typical -20 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....3A001,b4
Warranty:.....24 months

* 10 MHz Tone spacing

Mechanical Specifications

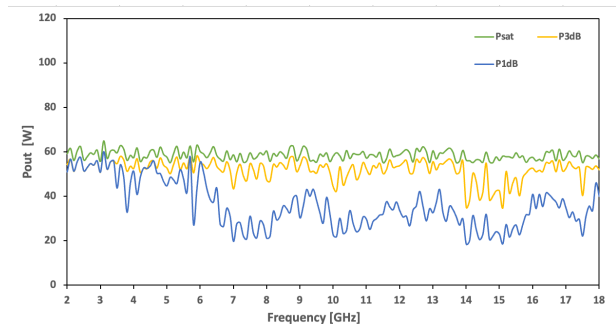
Enclosure Type:.....A
Weight:42.3 lbs
RF Input/Output:SMA Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-2G-18G-50

2-18 GHz, 50W



Default Options:

- > Remote Control TCPIP and RS485
- > Protective circuits: Temperature, input power, module

Optional:

- > MPA-COUP Integrated coupler for forward and reflected power detection
- > MPA-INPUT-REAR RF Input port on the rear
- > MPA-OUTPUT-REAR RF Output port on the rear
- > MPA-SAMPLING RF Forward sampling port

Specifications

Frequency Range:2-18 GHz
Psat:Typical 50 W, Minimum 50 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 49 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2.1:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3* @ 13 dB back off:Typical -38 dBc
IM3* @ 3 dB back off:.....Typical -20 dBc
Unconditionally Stable
VSWR Load @Psat:3:1*
ECCN:3A001.b4
Warranty:.....24 months

* 10 MHz Tone spacing

*Infinite protection with Option MPA-COUP

Mechanical Specifications

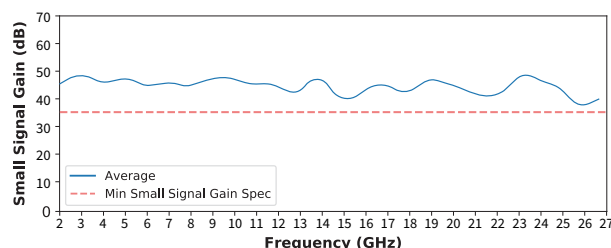
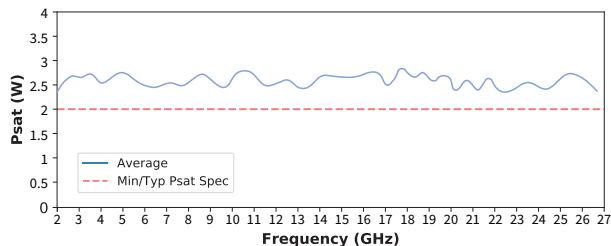
Enclosure Type:A
Weight:48 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp.:.....-25°C to 65°C

MPA-2G-26G5-2

2-26.5 GHz, 2W



Specifications

Frequency Range:2-26.5 GHz
Psat:Typical 2W, Minimum 2W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 35 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 13 dB back off:Typical -38 dBc
IM3' @ 3 dB back off:.....Typical -25 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....EAR99
Warranty:.....24 months

* 10 MHz Tone spacing

Mechanical Specifications

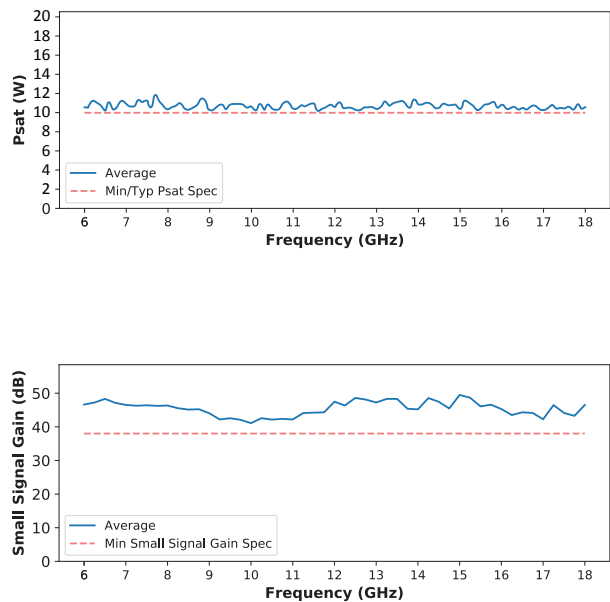
Enclosure Type:.....B
Weight:15.5 lbs
RF Input/Output:SMA Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-6G-18G-10

6-18 GHz, 10W



Specifications

Frequency Range:6-18 GHz
Psat:Typical 10 W, Minimum 10 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 38 dB
Gain Flatness:.....Typical ± 3 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 13 dB back off:Typical -35 dBc
IM3' @ 3 dB back off:.....Typical -20 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....EAR99
Warranty:.....24 months

** 10 MHz Tone spacing*

Mechanical Specifications

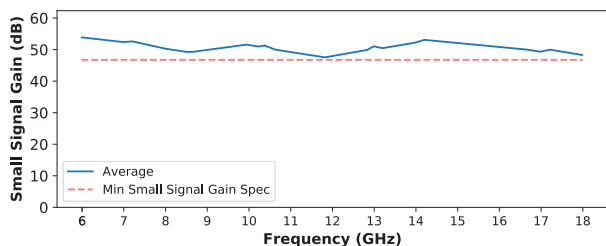
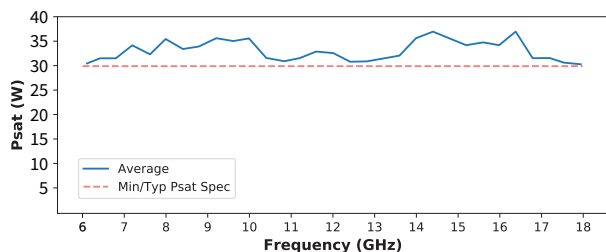
Enclosure Type:.....B
Weight:20 lbs
RF Input/Output:SMA Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-6G-18G-30

6-18 GHz, 30W



Specifications

Frequency Range:6-18 GHz
Psat:Typical 30 W, Minimum 30 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 48 dB
Gain Flatness:.....Typical ± 3 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 13 dB back off:Typical -35 dBc
IM3' @ 3 dB back off:.....Typical -20 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....3A001,b4
Warranty:.....24 months

* 10 MHz Tone spacing

Mechanical Specifications

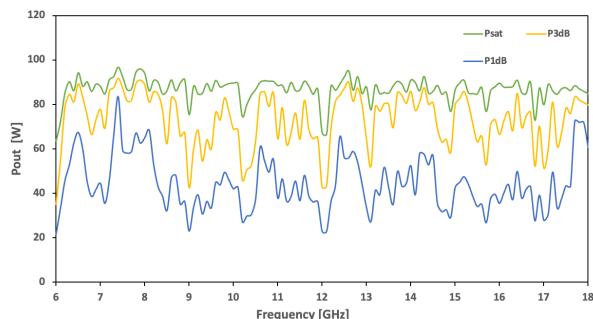
Enclosure Type:.....A
Weight:42 lbs
RF Input/Output:SMA Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-6G-18G-50

6-18 GHz, 50W



Default Options:

- > Remote Control TCP/IP and RS485
- > Protective circuits: Temperature, input power, module

Optional:

- > MPA-COUP Integrated coupler for forward and reflected power detection
- > MPA-INPUT-REAR RF Input port on the rear
- > MPA-OUTPUT-REAR RF Output port on the rear
- > MPA-SAMPLING RF Forward sampling port

Specifications

Frequency Range:6-18 GHz
Psat:Minimum 50 W
Input Power:.....Maximum 3 dBm
Small Signal Gain:Minimum 50 dB
Gain Flatness:.....Typical ± 3 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3* @ 13 dB back off:Typical -37 dBc
IM3* @ 3 dB back off:.....Typical -20 dBc
Unconditionally Stable
VSWR Load @Psat:3:1*
ECCN:.....3A001.b4
Warranty:.....24 months

* 10 MHz Tone spacing

*Infinite protection with Option MPA-COUP

Mechanical Specifications

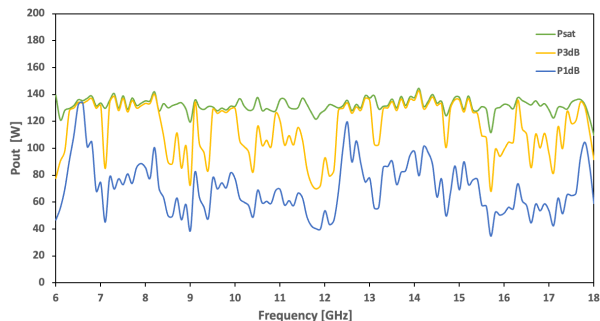
Enclosure Type:A
Weight:42.3 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp.:.....-25°C to 65°C

MPA-6G-18G-100

6-18 GHz, 100W



Default Options:

- > Remote Control TCP/IP and RS485
- > Protective circuits: Temperature, input power, module

Optional:

- > MPA-COUP Integrated coupler for forward and reflected power detection
- > MPA-INPUT-REAR RF Input port on the rear
- > MPA-OUTPUT-REAR RF Output port on the rear
- > MPA-SAMPLING RF Forward sampling port

Specifications

Frequency Range:6-18 GHz
Psat:Typical 100 W, Minimum 100 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 52 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 3 dB back off:.....Typical -20 dBc
Unconditionally Stable
VSWR Load @Psat:3:1[†]
ECCN:.....3A001
Warranty:.....24 months

* 10 MHz Tone spacing

[†]Infinite protection with Option MPA-COUP

Mechanical Specifications

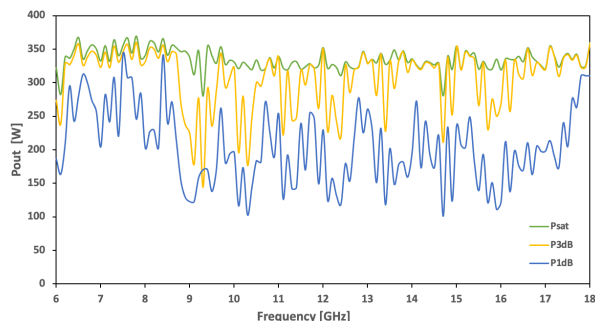
Enclosure Type:.....C
Weight:60 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-6G-18G-250

6-18 GHz, 250W



Default Options:

- > Remote Control TCPIP and RS485
- > Protective circuits: Temperature, input power, module

Optional:

- > MPA-COUP Integrated coupler for forward and reflected power detection
- > MPA-INPUT-REAR RF Input port on the rear
- > MPA-OUTPUT-REAR RF Output port on the rear
- > MPA-SAMPLING RF Forward sampling port

Specifications

Frequency Range:6-18 GHz
Psat:Typical 250 W, Minimum 250 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 56 dB
Gain Flatness:.....Typical ± 5 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -15 dBc
Spur @ Psat:.....Typical -65 dBc
IM3* @ 3 dB back off:.....Typical 18 dBc
Unconditionally Stable
VSWR Load @Psat:3:1†
ECCN:.....3A001
Warranty:.....24 months

* 10 MHz Tone spacing

† Infinite protection with Option MPA-COUP

Mechanical Specifications

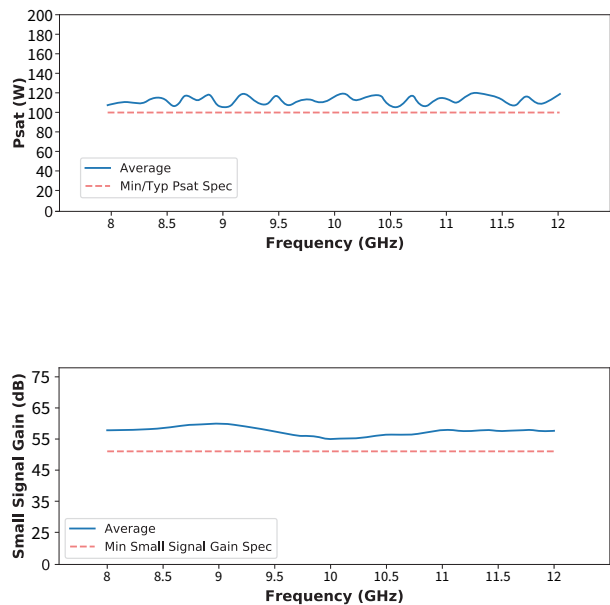
Enclosure Type:D
Weight:143 lbs
RF Input/Output:Type N Female
to WRD650

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-8G-12G-100

8-12 GHz, 100W



Specifications

Frequency Range:8-12 GHz
Psat:Minimum 100 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 52 dB
Gain Flatness:.....Typical ± 3 dB
Gain Adjustment:.....20 dB
VSWR (Input):.....Maximum 2:1
2nd Harmonic Power @ Psat:Typical -35 dBc
Spur @ Psat:.....Typical -65 dBc
IM3' @ 13 dB back off:Typical -33 dBc
IM3' @ 3 dB back off:.....Typical -23 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....3A001
Warranty:.....24 months

* 10 MHz Tone spacing

Mechanical Specifications

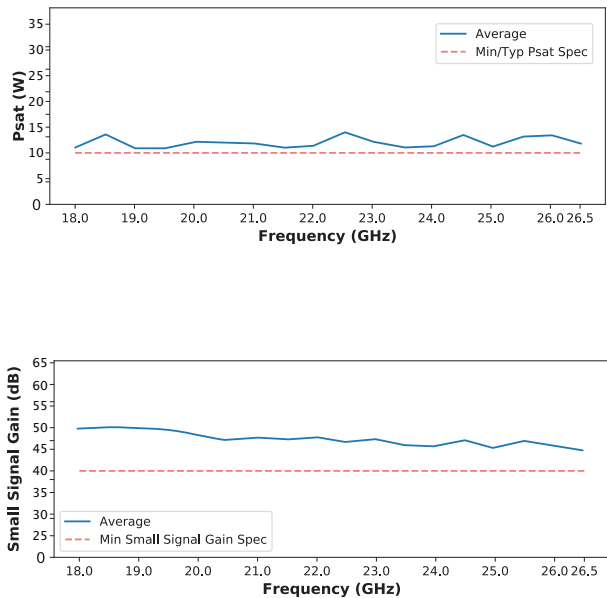
Enclosure Type:.....A
Weight:42 lbs
RF Input/Output:Type N Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-18G-26G5-10

18-26.5 GHz, 10W



Specifications

Frequency Range:18-26.5 GHz
Psat:Typical 10 W, Minimum 10 W
Input Power:.....Maximum 5 dBm
Small Signal Gain:Minimum 40 dB
Gain Flatness:.....Typical ± 3 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:EAR99
Warranty:.....24 months

Mechanical Specifications

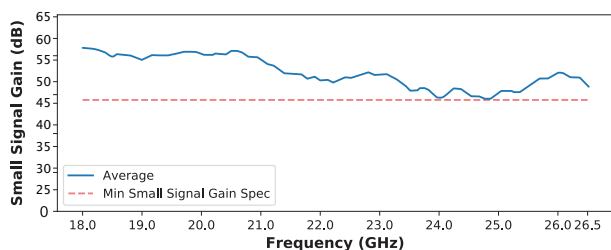
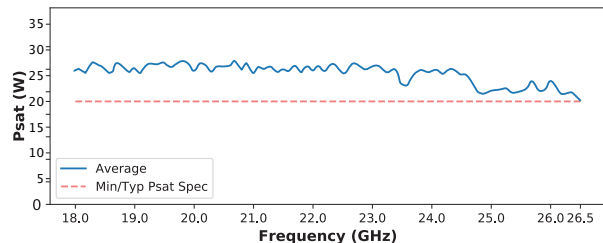
Enclosure Type:B
Weight:15.2 lbs
RF Input/Output:SMA Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-18G-26G5-25

18-26.5 GHz, 25W



Specifications

Frequency Range:18-26.5 GHz
Psat:Typical 25 W, Minimum 20 W
Input Power:.....Maximum 3 dBm
Small Signal Gain:Minimum 46 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....3A001.b4
Warranty:.....24 months

Mechanical Specifications

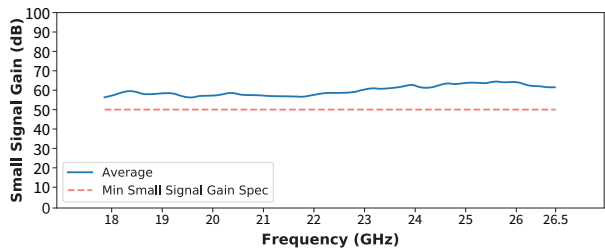
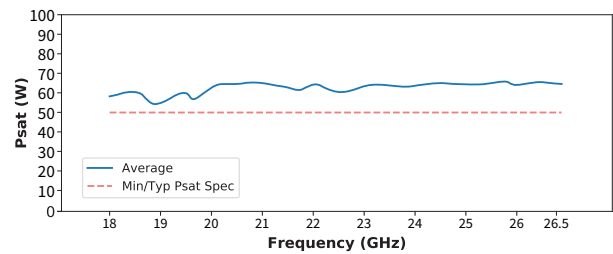
Enclosure Type:.....A
Weight:26 lbs
RF Input/Output:SMA Female/
WR42

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-18G-26G5-50

18-26.5 GHz, 50W



Specifications

Frequency Range:18-26.5 GHz
Psat:Typical 50 W, Minimum 50 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 51 dB
Gain Flatness:.....Typical ± 5 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:3A001
Warranty:.....24 months

Mechanical Specifications

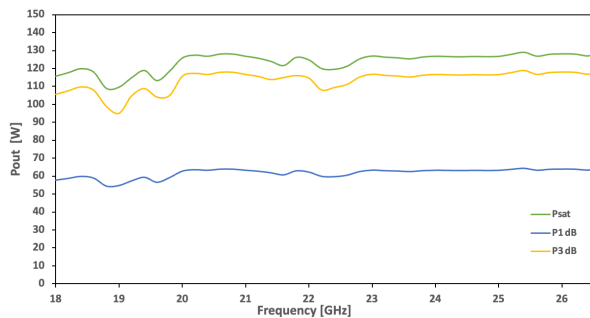
Enclosure Type:.....A
Weight:40 lbs
RF Input:.....2.92mm Female
RF Output:WR42

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-18G-26G5-100

18-26.5 GHz, 100W



Default Options:

- > Remote Control TCPIP and RS485
- > Protective circuits: Temperature, input power, module

Optional:

- > MPA-COUP Integrated coupler for forward and reflected power detection
- > MPA-INPUT-REAR RF Input port on the rear
- > MPA-OUTPUT-REAR RF Output port on the rear
- > MPA-SAMPLING RF Forward sampling port

Specifications

Frequency Range:18-26.5 GHz
Psat:Typical 100 W, Minimum 100 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 51 dB
Gain Flatness:.....Typical ± 5 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1[†]
ECCN:3A001
Warranty:.....24 months

[†]Infinite protection with Option MPA-COUP

Mechanical Specifications

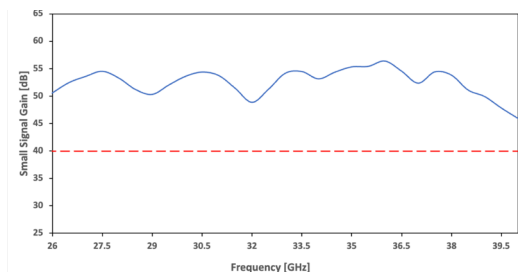
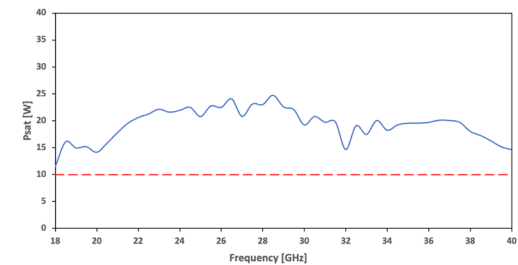
Enclosure Type:.....C
Weight:60 lbs
RF Input:.....2.92mm Female
RF Output:WR42

Environmental Specifications

Operating Temp.:.....0°C to 50°C
Storage Temp.:.....-25°C to 65°C

MPA-18G-40G-10

18-40 GHz, 10W



Specifications

Frequency Range:18-40 GHz
Psat:Minimum 10 W
Input Power:.....Maximum 2 dBm
Small Signal Gain:Minimum 40 dB
Gain Flatness:.....Typical ± 5 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:3A001.b4
Warranty:.....24 months

Mechanical Specifications

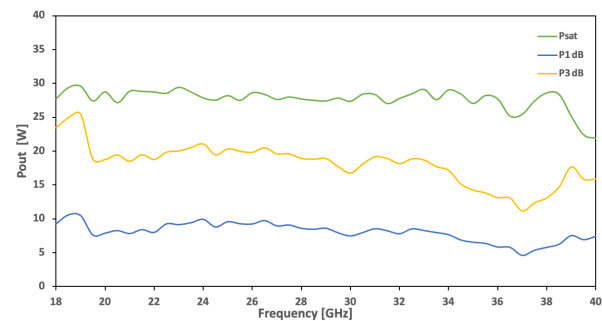
Enclosure Type:.....A
Weight:40 lbs
RF Input/Output:2.92mm Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-18G-40G-20

18-40 GHz, 20W



Default Options:

- > Remote Control TCPIP and RS485
- > Protective circuits: Temperature, input power, module

Optional:

- > MPA-COUP Integrated coupler for forward and reflected power detection
- > MPA-INPUT-REAR RF Input port on the rear
- > MPA-OUTPUT-REAR RF Output port on the rear
- > MPA-SAMPLING RF Forward sampling port

Specifications

Frequency Range:18-40 GHz
Psat:Minimum 20 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 43 dB
Gain Flatness:.....Typical ± 5 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1[†]
ECCN:.....3A001.b4
Warranty:.....24 months

[†]Infinite protection with Option MPA-COUP

Mechanical Specifications

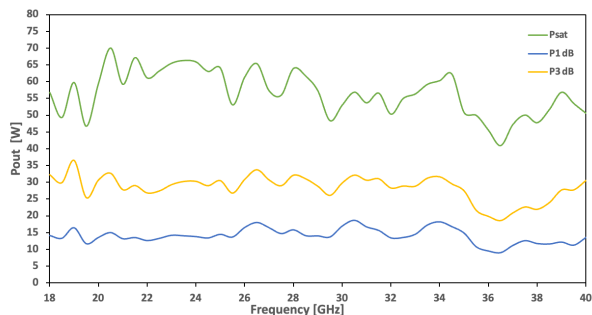
Enclosure Type:.....A
Weight:44 lbs
RF Input/Output:2.92mm Female/
WRD180C24

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-18G-40G-40

18-40 GHz, 40W



Default Options:

- > Remote Control TCP/IP and RS485
- > Protective circuits: Temperature, input power, module

Optional:

- > MPA-COUP Integrated coupler for forward and reflected power detection
- > MPA-INPUT-REAR RF Input port on the rear
- > MPA-OUTPUT-REAR RF Output port on the rear
- > MPA-SAMPLING RF Forward sampling port

Specifications

Frequency Range:18-40 GHz
Psat:Minimum 40 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 46 dB
Gain Flatness:.....Typical ± 5 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1[†]
ECCN:3A001.b4
Warranty:.....24 months

[†]Infinite protection with Option MPA-COUP

Mechanical Specifications

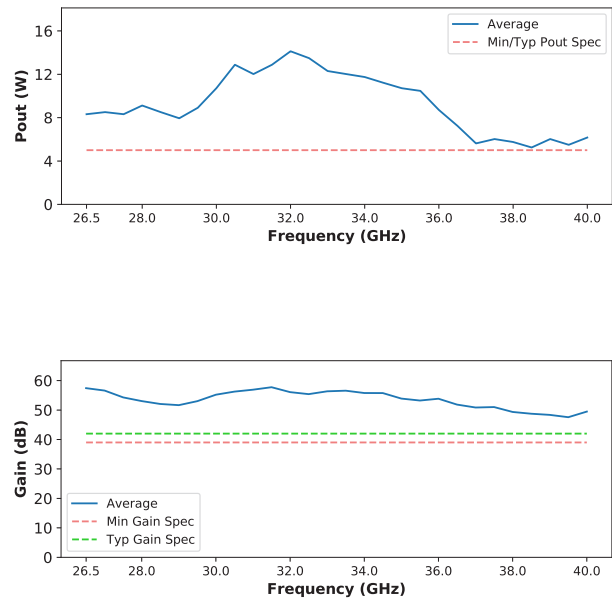
Enclosure Type:.....C
Weight:50 lbs
RF Input/Output:2.92mm Female/
WRD180C24

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-26G5-40G-5

26.5-40 GHz, 5W



Specifications

Frequency Range:26.5-40 GHz
P_{sat}:Typical 5 W, Minimum 5 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 40 dB
Gain Flatness:.....Typical ±5 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ P_{sat}:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @P_{sat}:3:1
ECCN:.....3A001.b4
Warranty:.....24 months

Mechanical Specifications

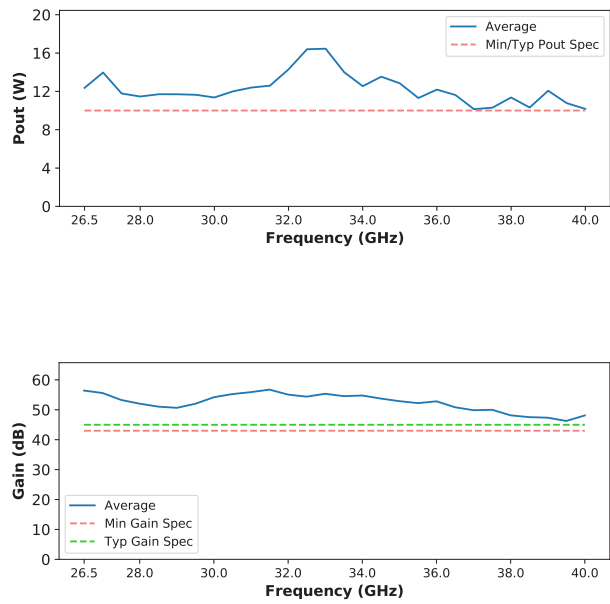
Enclosure Type:.....B
Weight:16.9 lbs
RF Input/Output:2.92mm Female

Environmental Specifications

Operating Temp.:.....0°C to 50°C
Storage Temp.:.....-25°C to 65°C

MPA-26G5-40G-10

26.5-40 GHz, 10W



Specifications

Frequency Range:26.5-40 GHz
Psat:Typical 10 W, Minimum 10 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 40 dB
Gain Flatness:.....Typical ± 5 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....3A001.b4
Warranty:.....24 months

Mechanical Specifications

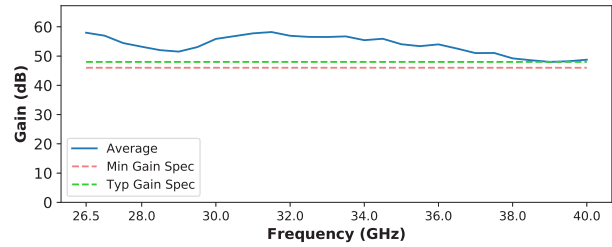
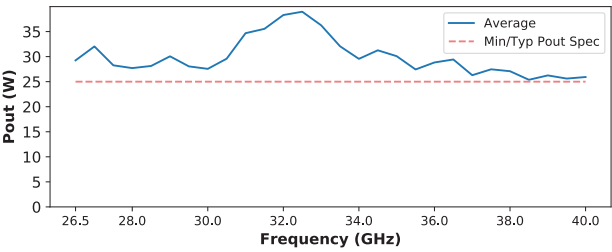
Enclosure Type:.....B
Weight:29 lbs
RF Input/Output:2.92mm Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-26G5-40G-25

26.5-40 GHz, 25W



Specifications

Frequency Range:26.5-40 GHz
Psat:Typical 25 W, Minimum 20 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 43 dB
Gain Flatness:.....Typical ± 5 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....3A001.b4
Warranty:.....24 months

Mechanical Specifications

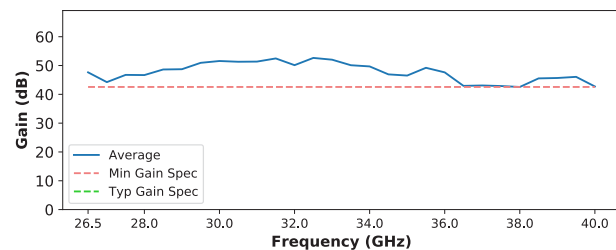
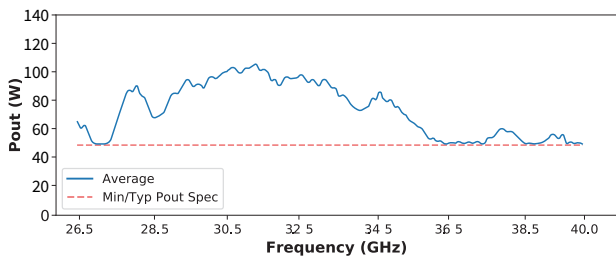
Enclosure Type:.....A
Weight:42.3 lbs
RF Input:.....2.92mm Female
RF Output:WR28 flange

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-26G5-40G-50

26.5-40 GHz, 50W



Specifications

Frequency Range:26.5-40 GHz
Psat:Typical 50 W, Minimum 50 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 43 dB
Gain Flatness:.....Typical ± 5 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:3A001.b4
Warranty:.....24 months

Mechanical Specifications

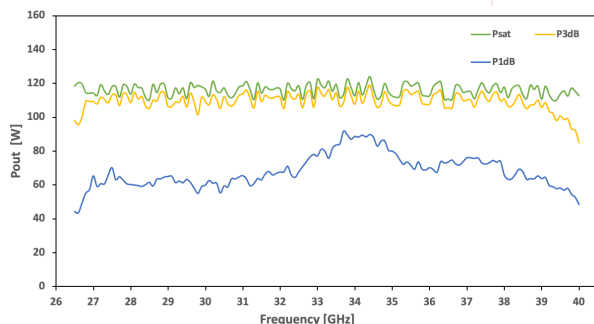
Enclosure Type:.....C
Weight:59 lbs
RF Input:.....2.92mm Female
RF Output:WR28 flange

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-26G5-40G-100

26.5-40 GHz, 100W



Default Options:

- > Remote Control TCPIP and RS485
- > Protective circuits: Temperature, input power, module

Optional:

- > MPA-COUP Integrated coupler for forward and reflected power detection
- > MPA-INPUT-REAR RF Input port on the rear
- > MPA-OUTPUT-REAR RF Output port on the rear
- > MPA-SAMPLING RF Forward sampling port

Specifications

Frequency Range:26.5-40 GHz
Psat:Typical 100 W, Minimum 100 W
Input Power:.....Maximum 5 dBm
Small Signal Gain:Minimum 50 dB
Gain Flatness:.....Typical ± 5 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1[†]
ECCN:3A001.b4
Warranty:.....24 months

[†]Infinite protection with Option MPA-COUP

Mechanical Specifications

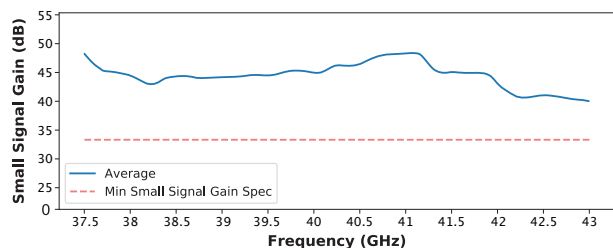
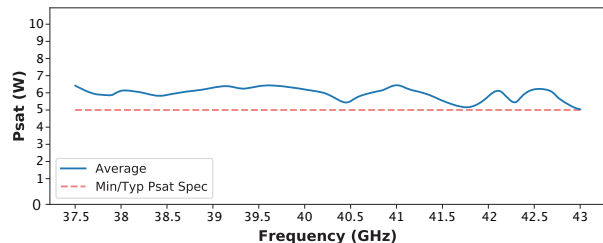
Enclosure Type:.....Contact Maury
Weight:111 lbs
RF Input:.....2.92mm Female
RF Output:WR28 flange

Environmental Specifications

Operating Temp.:.....0°C to 50°C
Storage Temp.:.....-25°C to 65°C

MPA-37G-43G-5

37-43 GHz, 5W



Specifications

Frequency Range:37-43 GHz
Psat:Minimum 5 W
Input Power:.....Maximum 2 dBm
Small Signal Gain:Minimum 33 dB
Gain Flatness:.....Typical ± 4 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:3A001.b4
Warranty:.....24 months

Mechanical Specifications

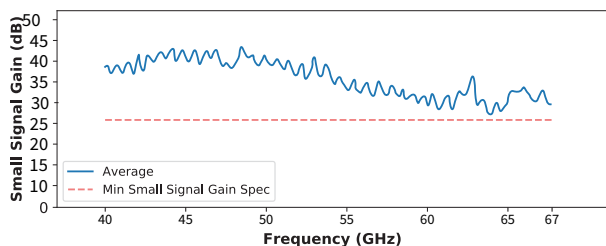
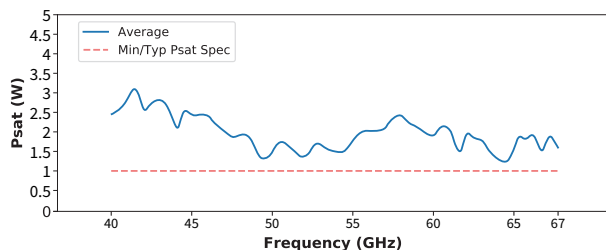
Enclosure Type:B
Weight:14.33 lbs
RF Input/Output:2.4mm Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-40G-67G-1

40-67 GHz, 1W



Specifications

Frequency Range:40-67 GHz
Psat:Typical 1 W, Minimum 1 W
Input Power:.....Maximum 8 dBm
Small Signal Gain:Minimum 26 dB
Gain Flatness:.....Typical ± 8 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:3A001
Warranty:.....24 months

Mechanical Specifications

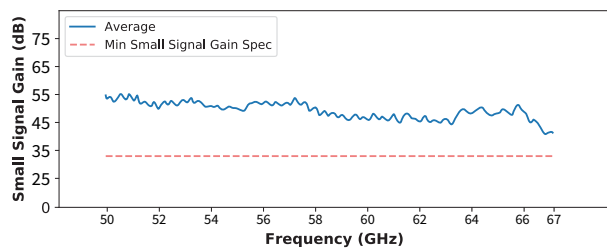
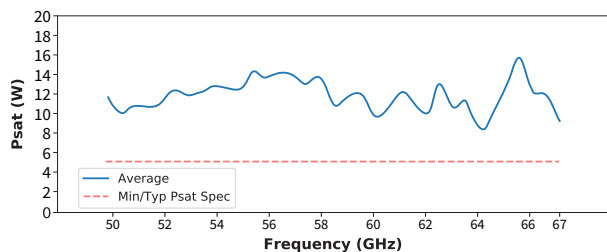
Enclosure Type:.....B
Weight:18 lbs
RF Input/Output:1.85mm Female

Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

MPA-50G-67G-5

50-67 GHz, 5W



Specifications

Frequency Range:50-67 GHz
Psat:Typical 5 W, Minimum 5 W
Input Power:.....Maximum 0 dBm
Small Signal Gain:Minimum 33 dB
Gain Flatness:.....Typical ± 5 dB
Gain Adjustment:.....15 dB
VSWR (Input):.....Maximum 2:1
Spur @ Psat:.....Typical -65 dBc
Unconditionally Stable
VSWR Load @Psat:3:1
ECCN:.....3A001
Warranty:.....24 months

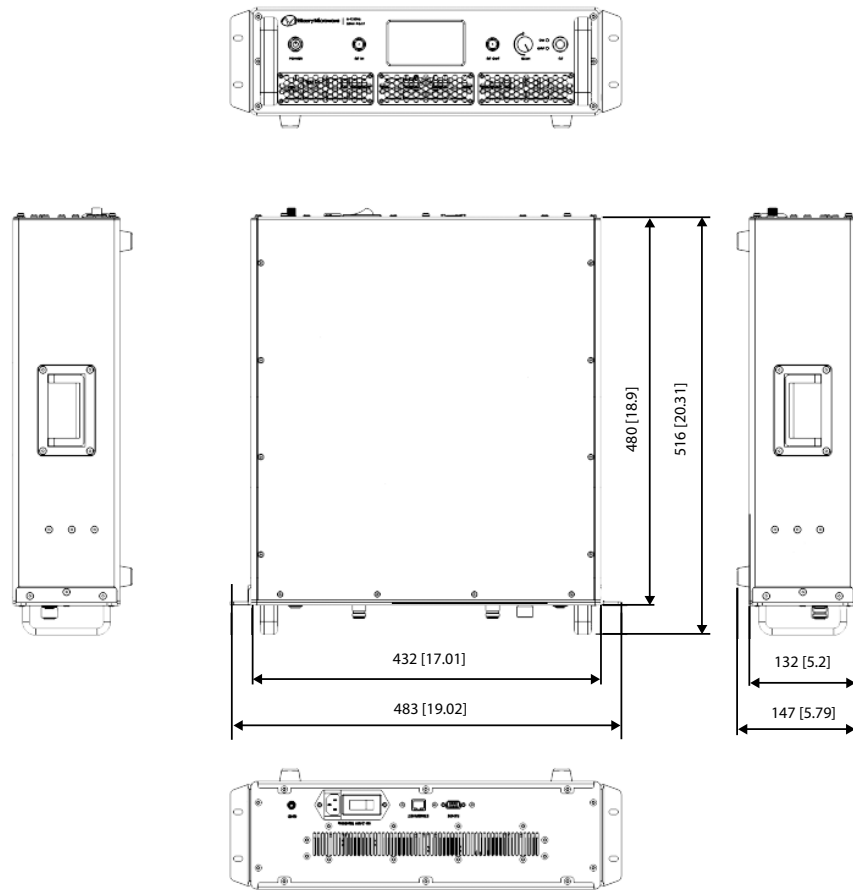
Mechanical Specifications

Enclosure Type:.....A
Weight:32 lbs
RF Input:.....1.85mm Female
RF Output:WR15 flange

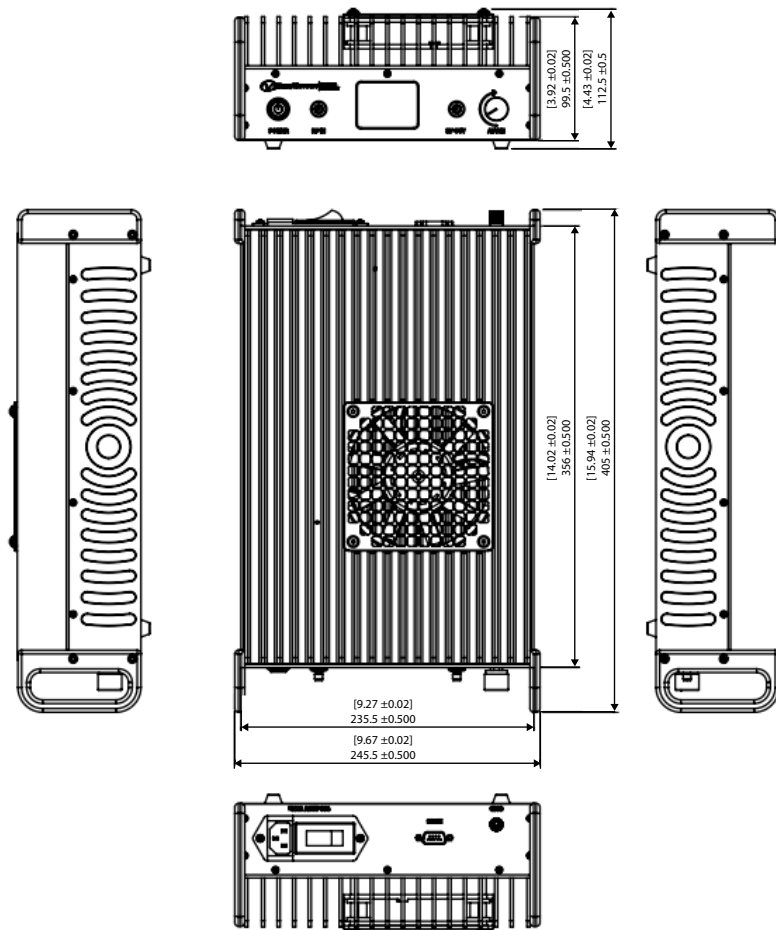
Environmental Specifications

Operating Temp:.....0°C to 50°C
Storage Temp:.....-25°C to 65°C

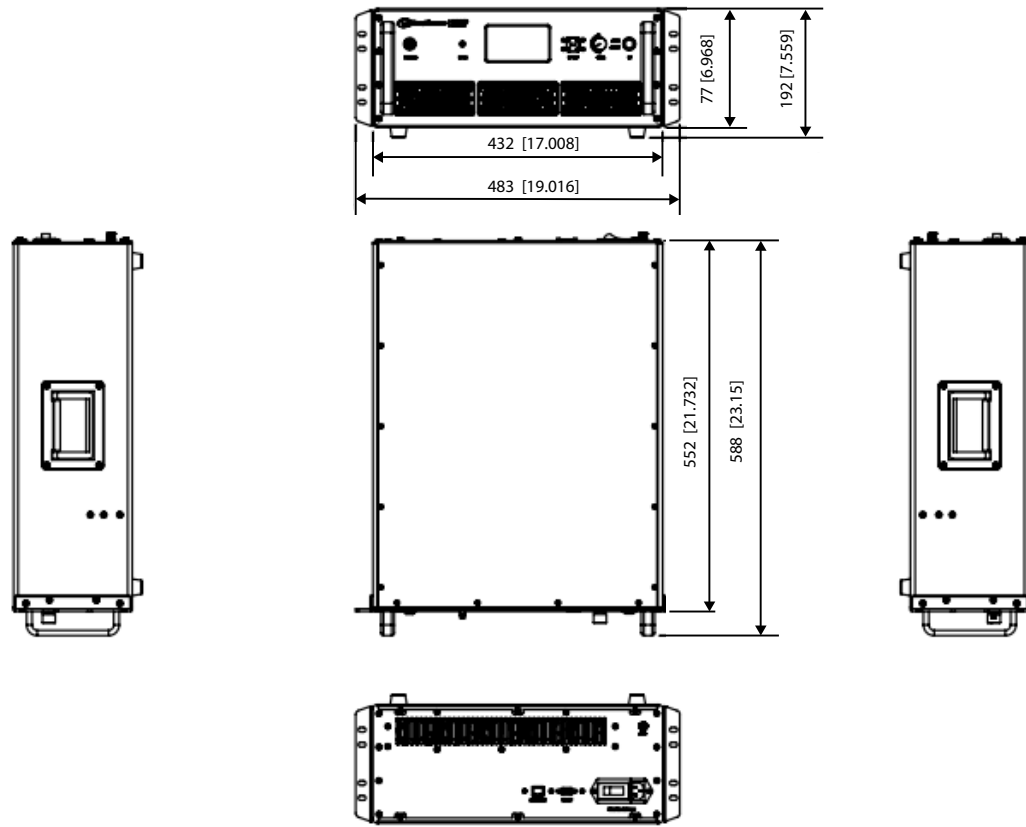
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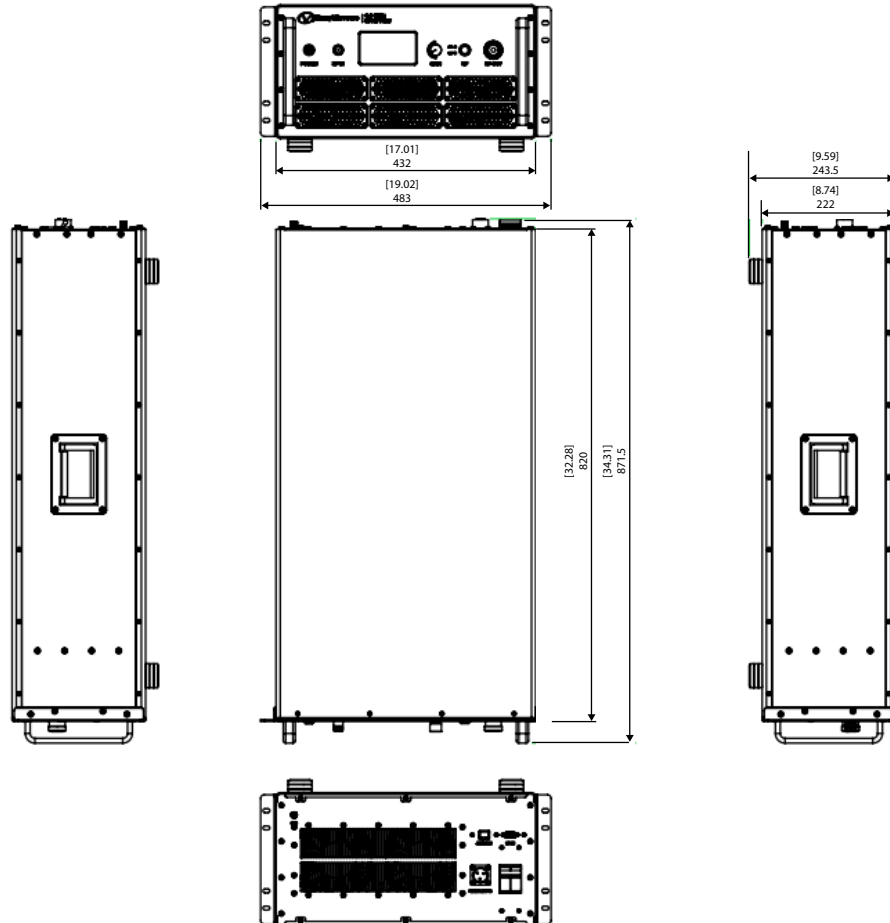
B

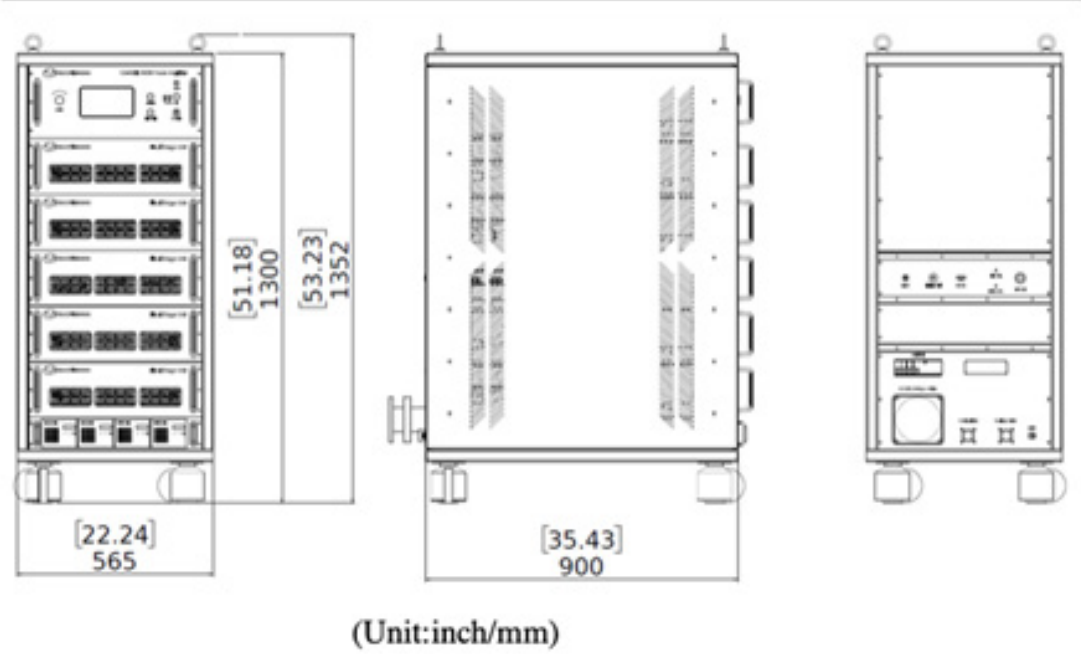


C



D





Maximizing Up-Time

All MPA-series amplifiers go through an extensive burn-in and ageing process to ensure high reliability and maximize up-time. We do recognize that, however unlikely, problems tend to arise at the most inconvenient moments, often when measurement systems are in the highest demand.

As a courtesy to our customers, Maury retains a pool of common amplifiers which can be used during the repair process. The frequencies and powers of the amplifiers offered as part of the courtesy pool may vary from time to time and are subject to availability.

Beyond our courtesy pool, we offer service level agreements (SLA) that include dedicated backup amplifiers to ensure availability during the warranty period and are shipped within two business days of notice. With an SLA, we can maximize up-time and ensure systems are available for use.

Please inquire with your Maury Sales contact for details.

Semi-Custom and Custom Amplifiers

Semi-Custom and Custom Amplifiers

Not finding what you need in our standard offering? Maury offers semi-custom and custom amplifiers to meet your application requirements.

Semi-Custom Amplifiers

Looking for something not-quite “off-the- shelf”? Do you need a little more power? A slightly different frequency band? A bit more gain? Maury's semi-custom amplifiers may be just what you need. We will modify our standard amplifiers to meet your application needs while maintaining all the benefits of our standard offering. Contact Maury Sales and we'll work on delivering a solution that upgrades your test bench to “State-of- the-Art”.

Custom Amplifiers

Looking for something even more specialized? Maury can go beyond modifying our standard “off-the-shelf” amplifiers and customize a solution for your unique application, including:

- > Electrical: frequency range, output power, gain, harmonic power, spurious signals levels, intermodulation levels, noise floor...
- > Protection and indications: LCD display, over-current protection, over-heat protection...
- > Mechanical and environmental: connectors and positioning, cooling, temperature range, dimensions....

Please complete a Custom Amplifier Questionnaire; we will compare your requirements with our capabilities and determine whether we can assist with your custom requirements.

Note: all custom amplifiers requests are evaluated on a case-by-case basis; completing a questionnaire does not ensure Maury will be able to offer an amplifier to meet your requirements; all custom amplifiers will include comprehensive Terms and Conditions (T&C) and will be accompanied by a set of Acceptance Test criteria (ATP).

Specifications Definitions

Parameter	Extended Parameter (if required)	Description and/or Usefulness of Parameter	Notes	Units
Psat	Saturated Output Power	Defines the maximum output power that can be sustained without any damage or long term reliability issues.	Psat is achieved once an increment of 1dB input power results in an increased output power less than 0.2dB	dBm
Input Power		Defines the maximum input power that can be injected into the amplifier without any damage or long term reliability issues.		dBm
Small Signal Gain		Defines the difference between the output power and input power under small signal conditions. Specification allows a user to budget the required input power in order to reach the desired output power.	Power Gain measured under 50ohm conditions with a -30dBm input signal	dB
Gain Flatness	Gain Flatness as a Function of Frequency	Defines the maximum deviation of Gain over the frequency range of the amplifier. May be an important consideration for wideband power measurements.	Small Signal Gain variation vs frequency at -30dBm input power	dB
Gain Adjustment		Defines the range of gain achievable by varying the position of the gain knob. May be an important consideration for measurements which require less gain than maximum, or require a level of gain variability during the measurement.	The lowest achievable Gain is equal to the average Small Signal Gain minus Gain adjustment.	dB
VSWR (input)	Input Voltage Standing Wave Ratio	Defines maximum Input VSWR; a low VSWR ensures sufficient signal transmission between signal generator and amplifier.	VSWR measured with a VNA under small signal conditions (-30dBm input power)	
Harmonic Power		Defines relative power at harmonic frequencies compared with the power at the fundamental frequency. May be important for applications where injecting harmonic powers created by the amplifier may alter DUT performance or invalidate measurement results.	Power at the harmonic frequencies are measured while the power at the fundamental frequency is set to typical Psat. $P_{2H} = P_{210} - P_{10}$ $P_{3H} = P_{310} - P_{10}$	dBc

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