

RF POWER AMPLIFIER



2018 Model

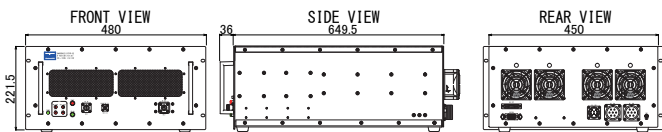
R&K-GA002M122-5757R



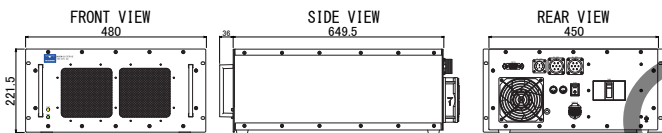
OUTLINE DRAWING

※ IN MILLIMETERS

P.A. Unit



P.S. Unit



- All Solid-State Amplifier
- Broadband Frequency: 2MHz ~ 1250MHz
- Output Power (CW) : 500W @1dB Comp.

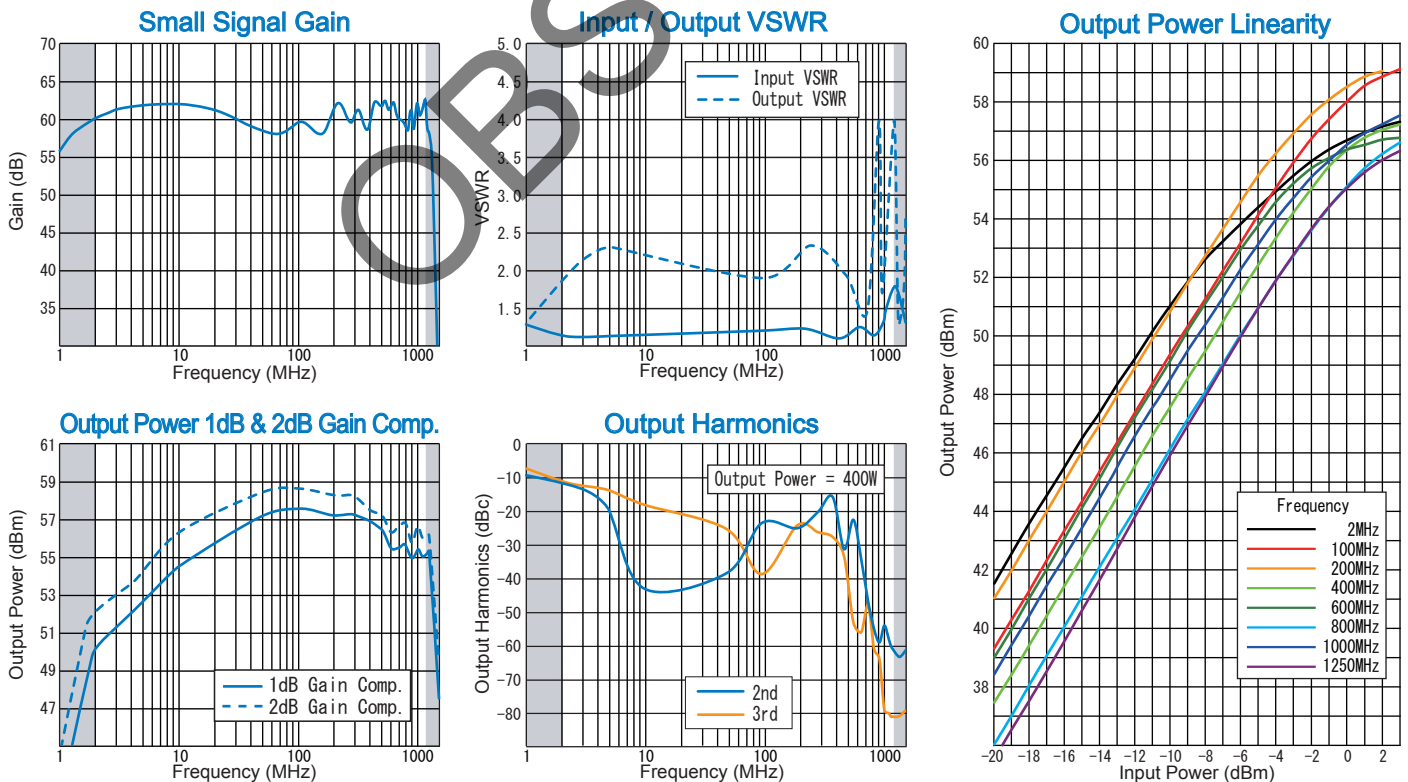
APPLICATION

- EMC (Electromagnetic Compatibility)
- Accelerator Application
- Telecommunication Test and Measurement Application
- Etc...

SPECIFICATIONS @ +25°C

Frequency Range	: 2MHz ~ 1250MHz
Small Signal Gain	: +57.0dB (min.)
Gain Flatness	: ±2.3dB (max.)
Output Power (CW)	
2MHz ~ 50MHz	: 100W (typ.) @1dB Comp.
50MHz ~ 400MHz	: 500W (min.) @1dB Comp.
400MHz ~ 800MHz	: 400W (min.) @1dB Comp.
800MHz ~ 1250MHz	: 300W (min.) @1dB Comp.
Harmonics	: -10.0dBc (max.) @Po=400W
Spurious	: -70.0dBc (max.) @Po=400W
Impedance	: 50Ω
Input Return Loss	: 15dB (min.) / VSWR : 1.43 (max.)
Output Return Loss	: 4.4dB (min.) / VSWR : 4.0 (max.)
Maximum RF Input Power	: +3.0dBm
AC Supply Input	
Power Supply Voltage	: AC400V ±15% / 3φ, 50/60Hz *Star Connection
ST-BY Supply Voltage	: AC200V ±15% / 1φ, 50/60Hz
Consumption Power	: 5kVA(max.)
Operating Temperature	: 0°C to +35°C
Storage Temperature	: -15°C to +65°C
Connectors	: RF - IN N - FEMALE RF - OUT N - FEMALE
Size	P.A. UNIT : (W)480mm × (D)559.5mm × (H)221.5mm (EIA:5U) P.S. UNIT : (W)480mm × (D)559.5mm × (H)221.5mm (EIA:5U)
Weight	: 80.0kg (max.)
Cooling	: Forced Air Cooling
Protection Circuits	: Over Temperature Protection Power Supply Voltage Protection Output Over Power Protection (@550W) Output Over Reflection Power Protection (@300W)

TYPICAL PERFORMANCE (Temp @ +25°C)

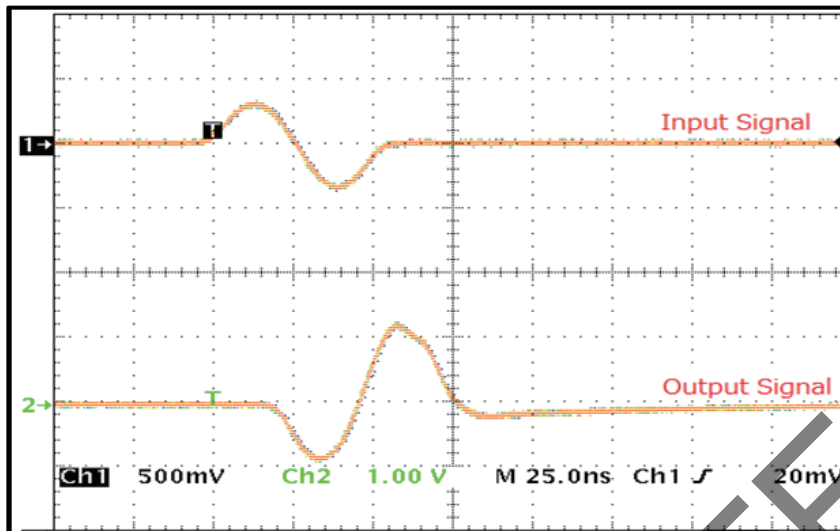


R&K reserves the right to make changes in the specifications of or discontinue products at any time without notice. R&K products shall not be used for or in connection with equipment that requires an extremely high level of reliability and safety such as aerospace uses or medical life support equipment. Further, The export of R&K products from Japan may be subject to an export license by the government of Japan, based on Japan's "Foreign Exchange and Foreign Trade Law".

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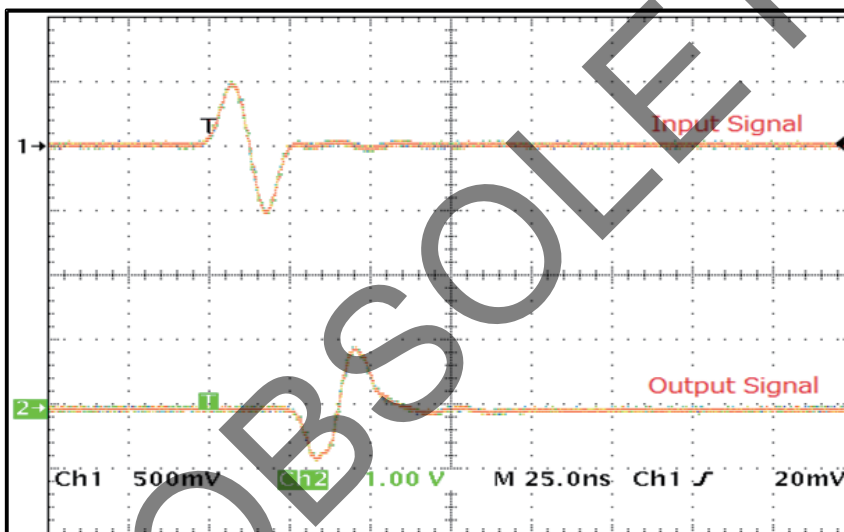
721-1 Maeda, Fuji-City, Shizuoka-Pref. 416-8577 Japan
 Tel : +81-545-31-2600 E-mail : info@rkco.jp
 Fax : +81-545-31-1600 URL : http://rk-microwave.com

Single shot Input vs Output (20MHz)



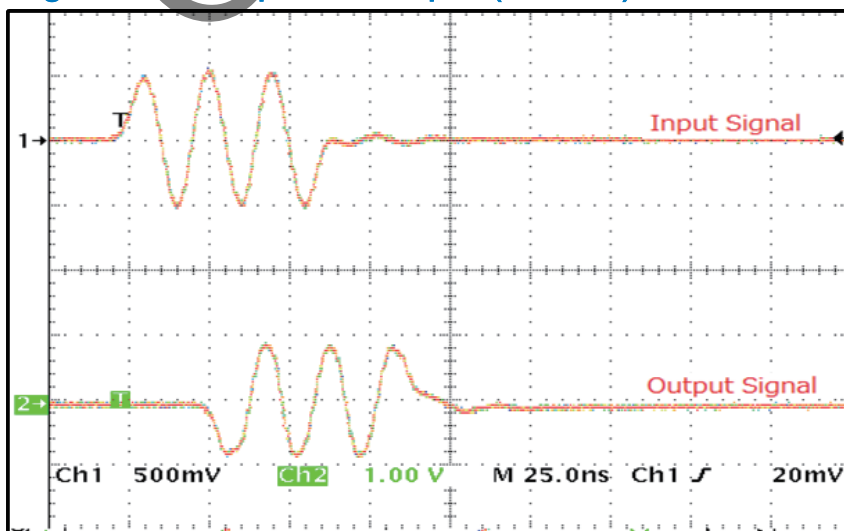
Frequency : 20MHz
Output Power : 200W peak

Single shot Input vs Output (50MHz)



Frequency : 50MHz
Output Power : 200W peak

Single shot×3 Input vs Output (50MHz)



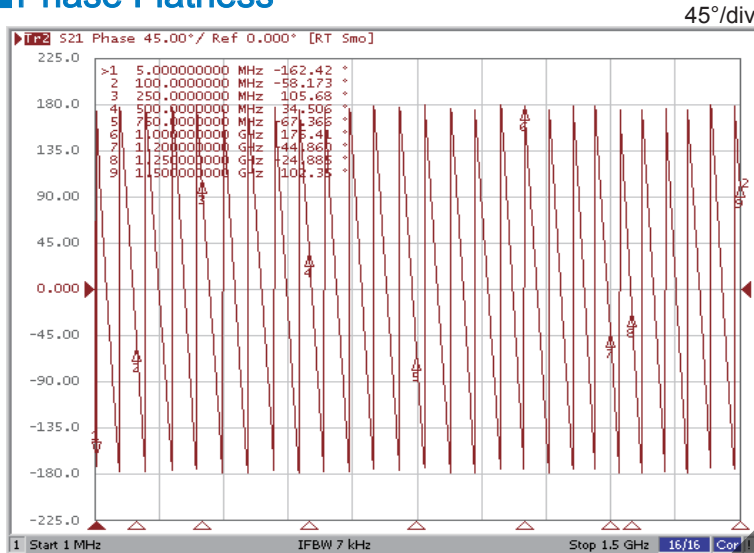
Frequency : 50MHz
Output Power : 200W peak

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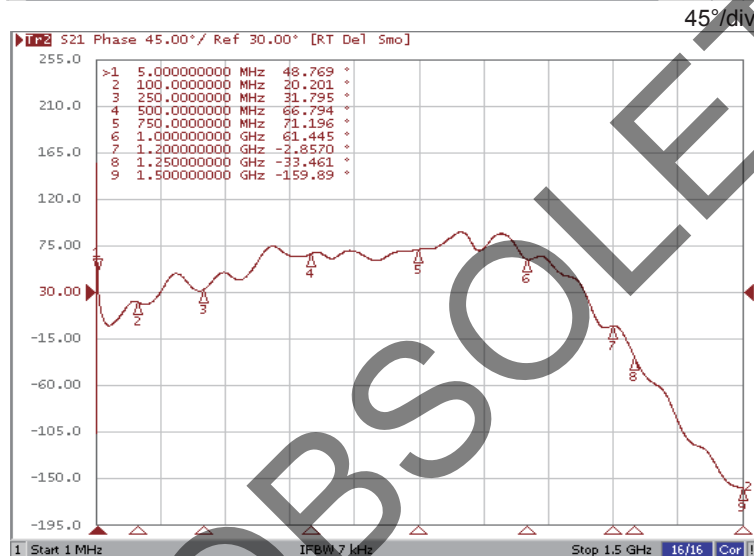
Phase Flatness



Mark1:	5MHz	-162.42°
Mark2:	100MHz	-58.13°
Mark3:	250MHz	105.68°
Mark4:	500MHz	34.50°
Mark5:	750MHz	-67.36°
Mark6:	1000MHz	175.41°
Mark7:	1200MHz	-44.86°
Mark8:	1250MHz	-24.88°
Mark9:	1500MHz	102.35°

← REF : 0°

• Frequency Range : 1MHz~1200MHz
Phase offset=0°
※Electrical Delay=0nsec

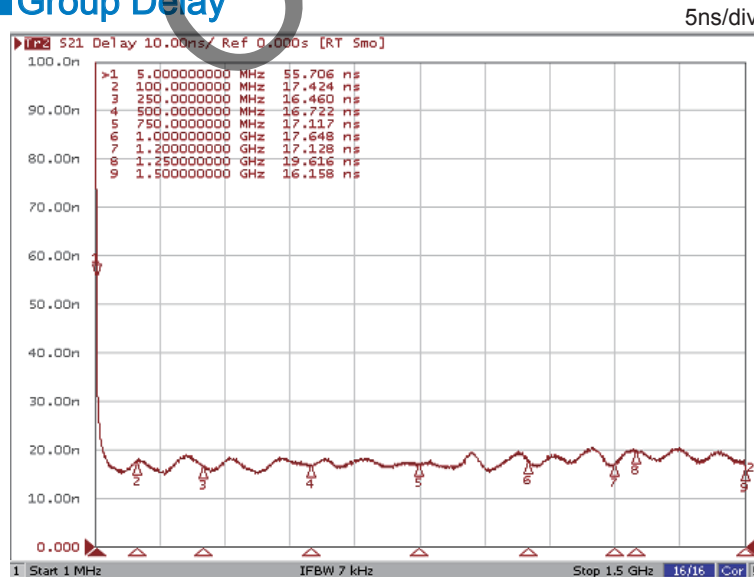


Mark1:	5MHz	48.76°
Mark2:	100MHz	20.20°
Mark3:	250MHz	31.79°
Mark4:	500MHz	66.79°
Mark5:	750MHz	71.19°
Mark6:	1000MHz	61.44°
Mark7:	1200MHz	-2.85°
Mark8:	1250MHz	-33.46°
Mark9:	1500MHz	-159.89°

← REF : 30°

• Frequency Range : 1MHz~1200MHz
Phase offset=-180°
※Electrical Delay=17.18nsec

Group Delay



Mark1:	5MHz	55.76ns
Mark2:	100MHz	17.42ns
Mark3:	250MHz	16.46ns
Mark4:	500MHz	16.72ns
Mark5:	750MHz	17.11ns
Mark6:	1000MHz	17.64ns
Mark7:	1200MHz	17.12ns
Mark8:	1250MHz	19.61ns
Mark9:	1500MHz	16.15ns

← REF : 0ns

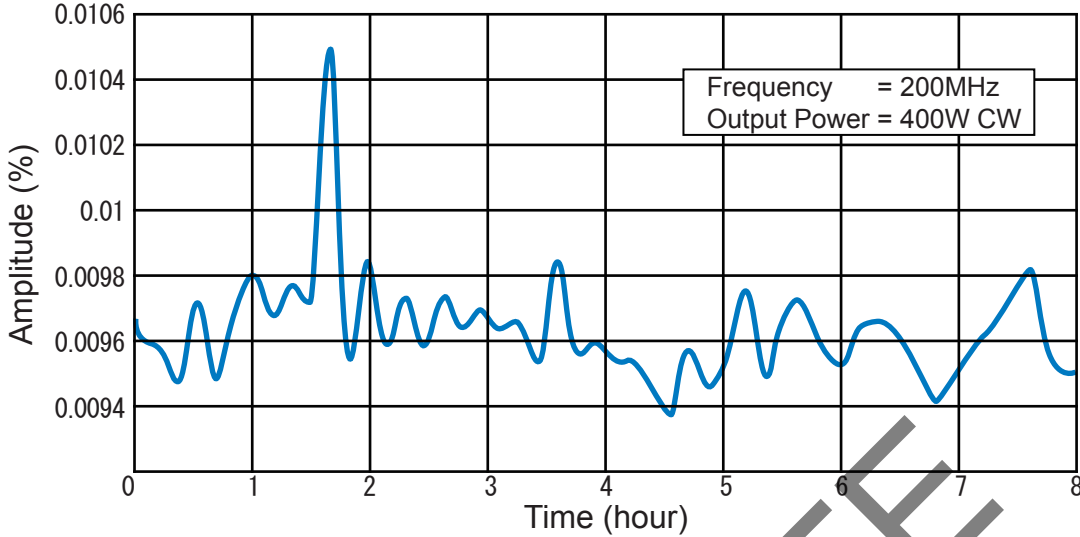
• Frequency Range : 1MHz~1200MHz

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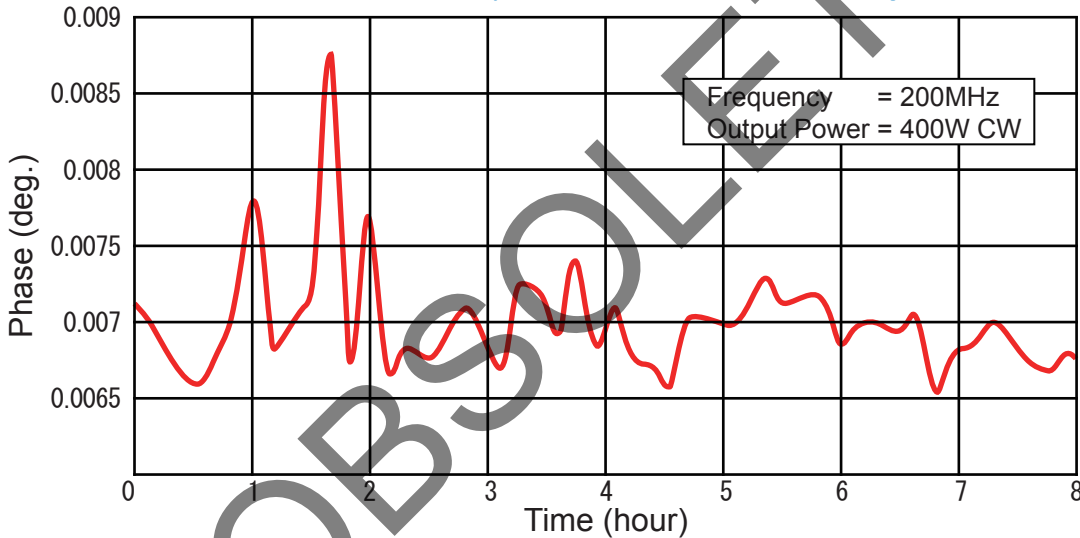
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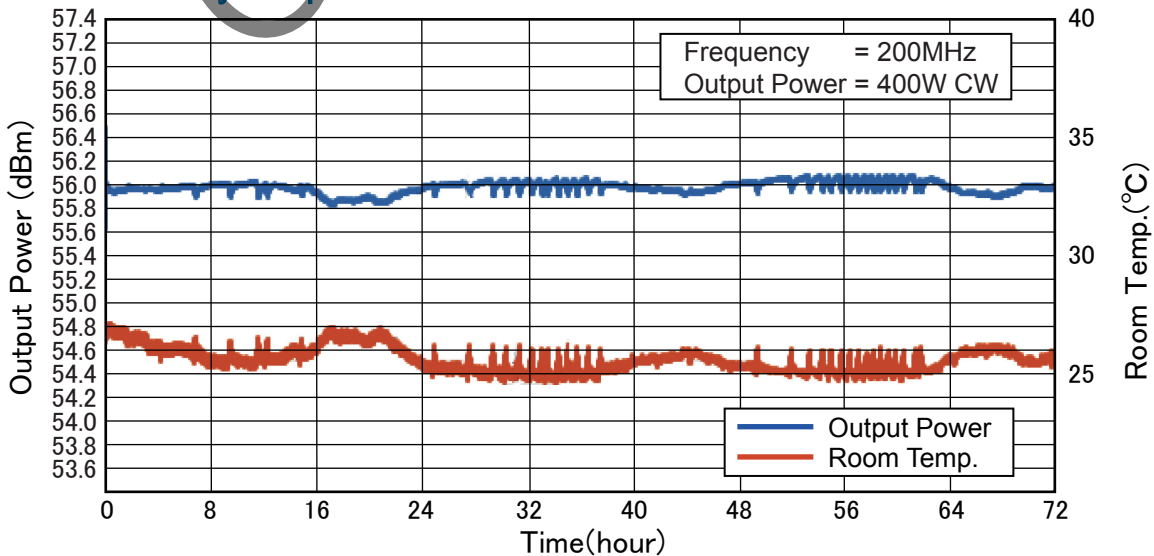
■ Short-Term Amplitude Stability per each Packet during 1sec.



■ Short-Term Phase Stability per each Packet during 1sec.



■ RF Stability Output Power vs Time



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