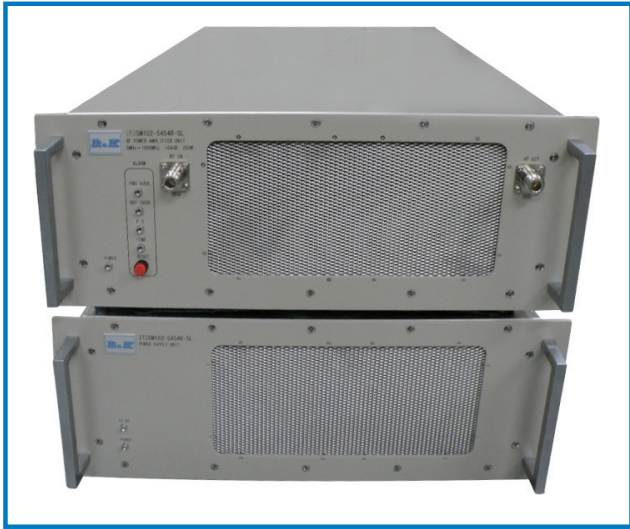


R&K-GA005M102-5454R-SL



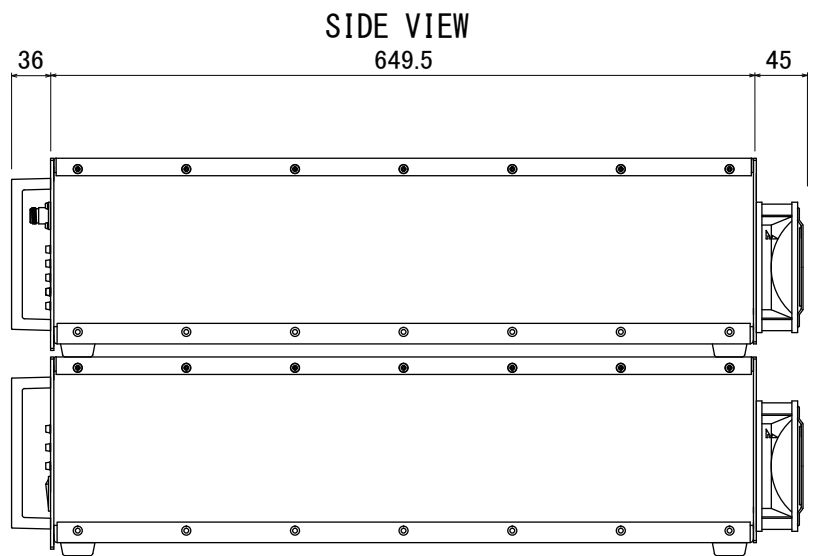
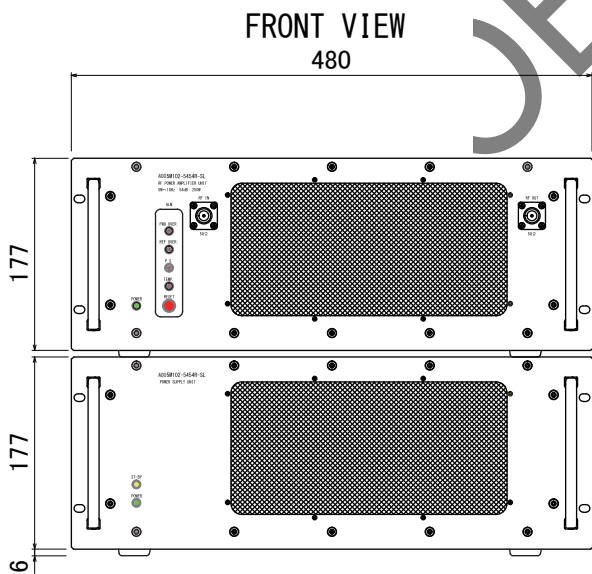
- All Solid-State Amplifier
- Broadband Frequency : 5MHz~1000MHz
- Output Power : 250W

APPLICATION

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

OUTLINE DRAWING

※IN MILLIMETERS



For Accelerator Bunch-Beam-FeedBack

SPECIFICATIONS @ +25°C

Frequency Range	: 5MHz ~ 1000MHz
Small Signal Gain	: +54.0dB (min.)
Gain Flatness	: ±3.0dB (max.)
Output Power	: 250W (typ.) @Psat.
5MHz~ 10MHz	: 150W (min.) @1dB Comp.
10MHz~1000MHz	: 200W (min.) @1dB Comp.
Harmonics	: -20.0dBc (max.) @Po=200W
Spurious	: -70.0dBc (max.) @Po=200W
Impedance	: 50Ω
Input Return Loss	: 14.0dB (min.) / VSWR : 1.5 (max.) Δ1
Output Return Loss	: 6.0dB (typ.) / VSWR : 3.0 (typ.)
Maximum RF Input Power	: +3.0dBm
AC Supply Input	: AC190V~230V / 1φ , 50/60Hz, 2kVA max. Δ1
Operating Temperature	: 0°C to +35°C
Storage Temperature	: -15°C to +65°C
Connectors	: RF - IN N - FEMALE RF - OUT N - FEMALE
Size AMP. Unit	: (W)480mm×(D)649.5mm×(H)177mm
P.S. Unit	: (W)480mm×(D)649.5mm×(H)177mm
Weight	: 70.0kg (max.)
Cooling	: Forced Air Cooling
Protection Circuits	: Over Temperature Protection Power Supply Voltage Protection Output Over Power Protection Output Over Reflection Power Protection

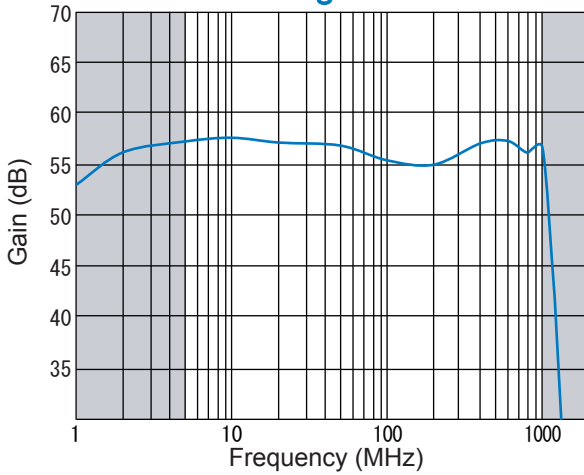
* CHANGE Δ1 26/Apr./2019

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".

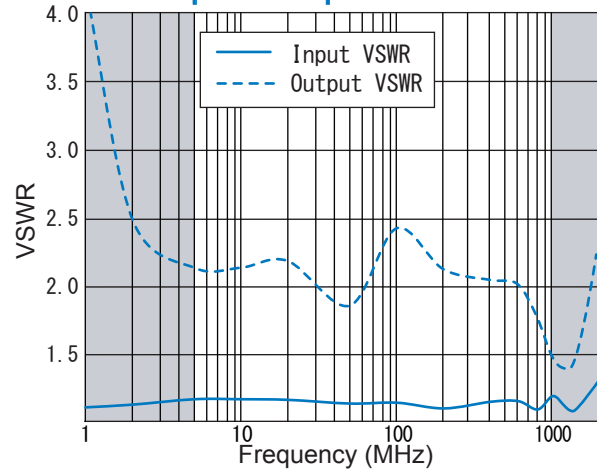
R&K Company Limited

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

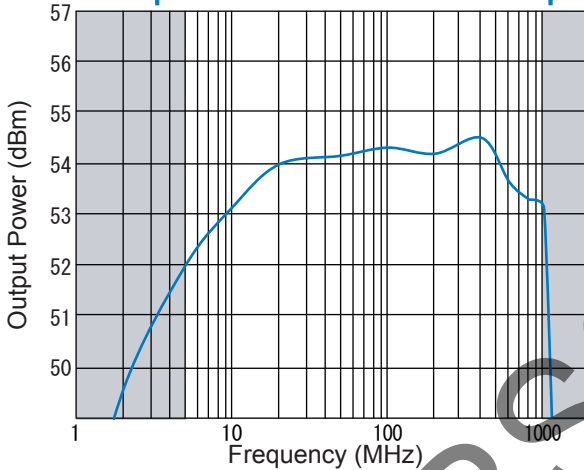
Small Signal Gain



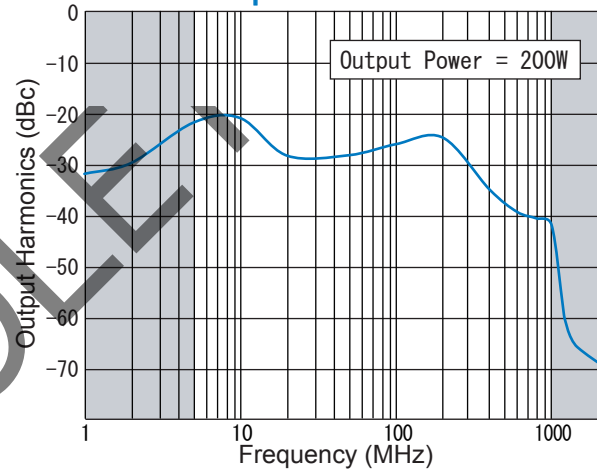
Input / Output VSWR



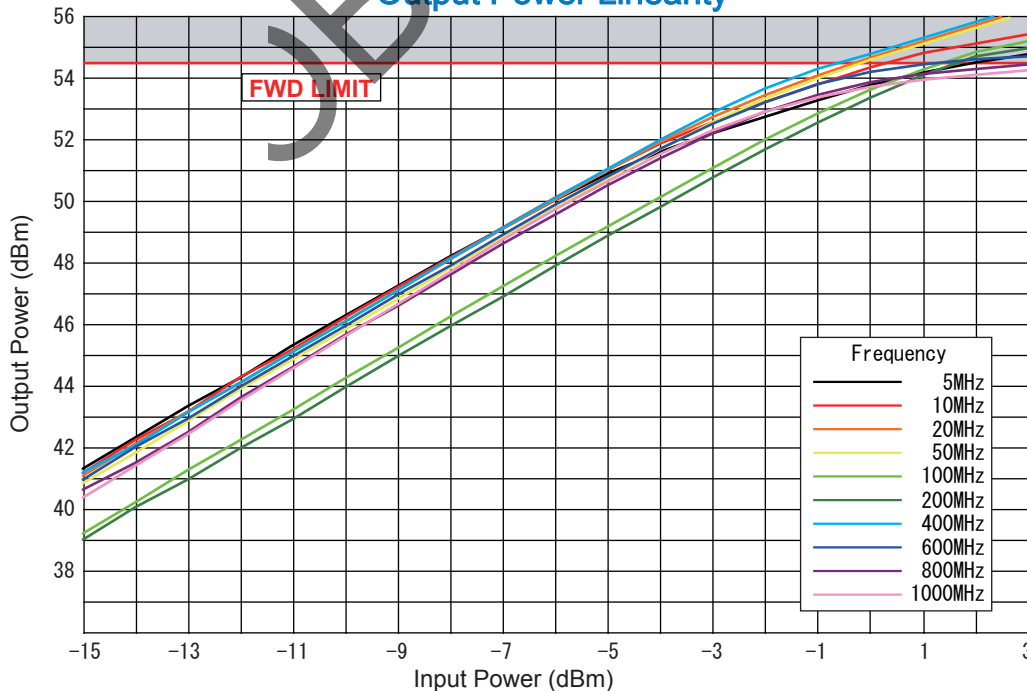
Output Power 1dB Gain Comp.



Output Harmonics



Output Power Linearity

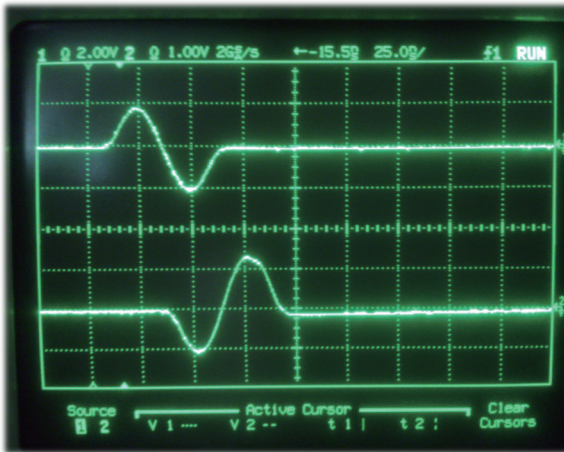


R&K reserves the right to make changes in the specifications of or discontinue products at any time without notice. R&K products shall not be used for or in connection with equipment that requires an extremely high level of reliability and safety such as aerospace uses or medical life support equipment. 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".

R&K Company Limited

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

① Single shot Input vs Output

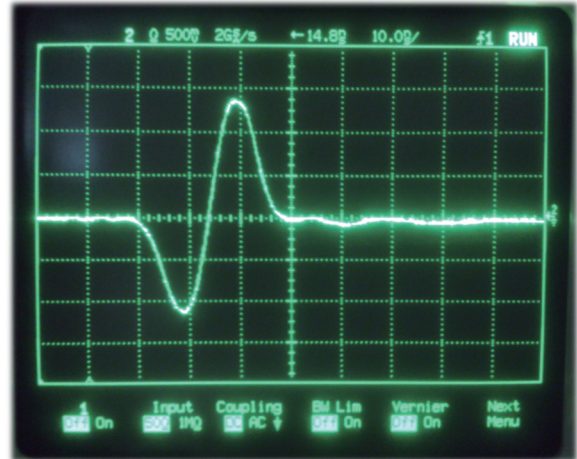


← Input Signal

← Output Signal

Frequency : 20MHz
Output Power : 200W peak

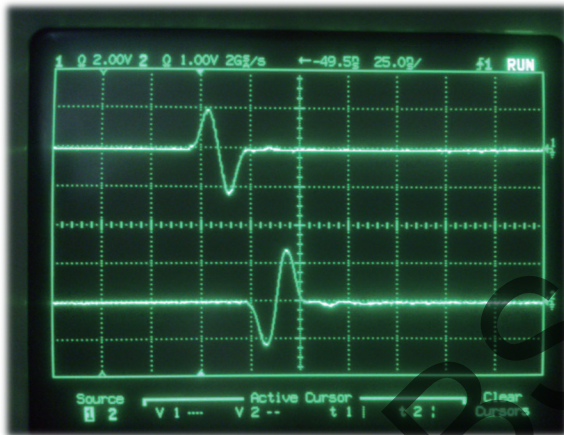
② Single shot Output



← Output Signal

Frequency : 20MHz
Output Power : 200W peak

③ Single shot Input vs Output

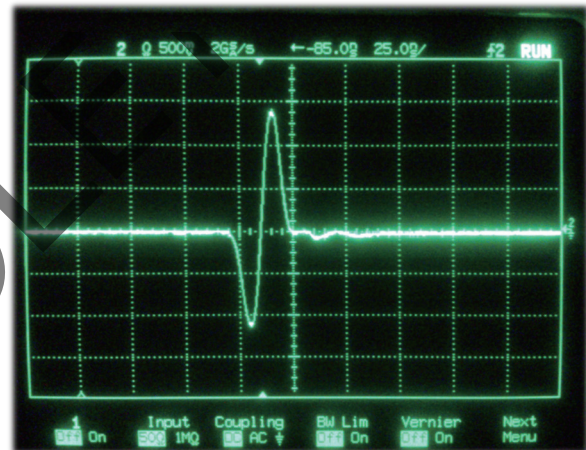


← Input Signal

← Output Signal

Frequency : 50MHz
Output Power : 200W peak

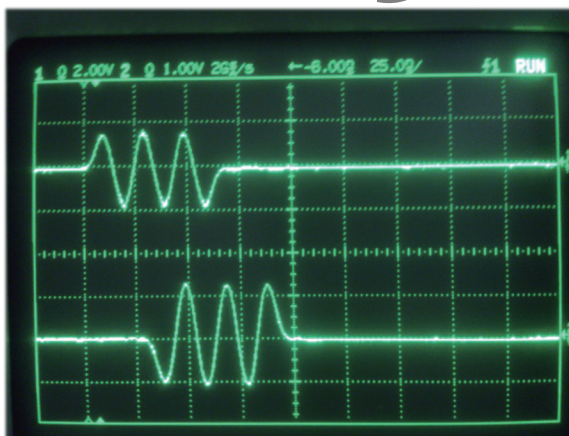
④ Single shot Output



← Output Signal

Frequency : 50MHz
Output Power : 200W peak

⑤ Single shot×3 Input vs Output



← Input Signal

← Output Signal

Frequency : 50MHz
Output Power : 200W peak

⑥ Single shot×3 Output



← Output Signal

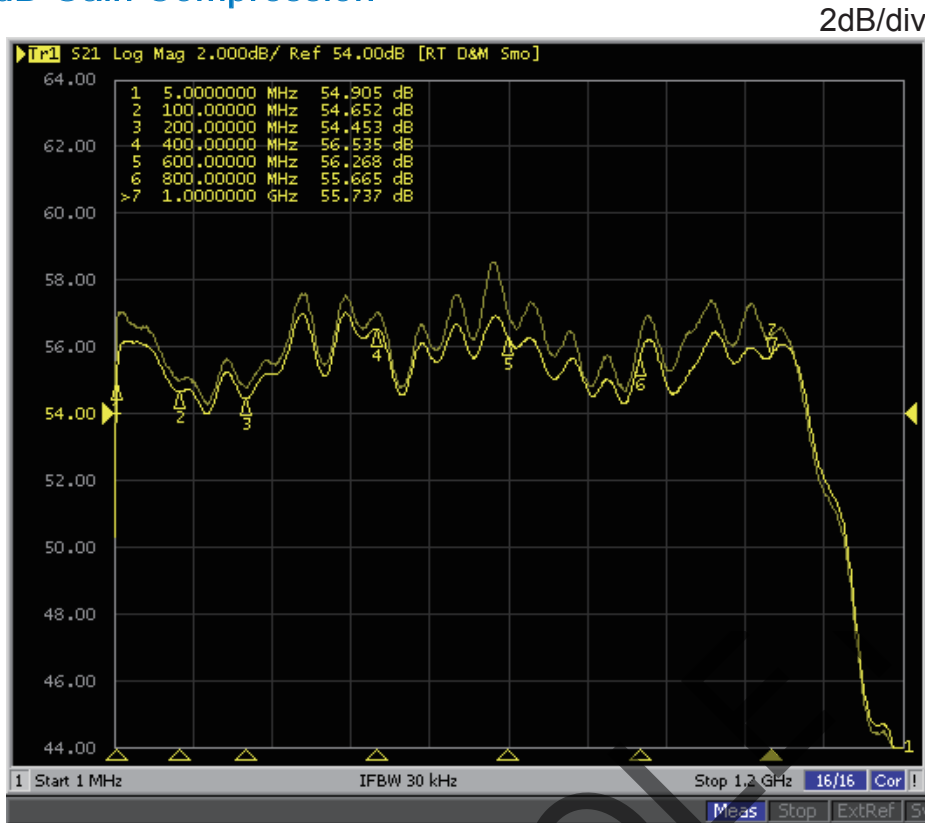
Frequency : 50MHz
Output Power : 200W peak

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".

R&K Company Limited

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

1dB Gain Compression

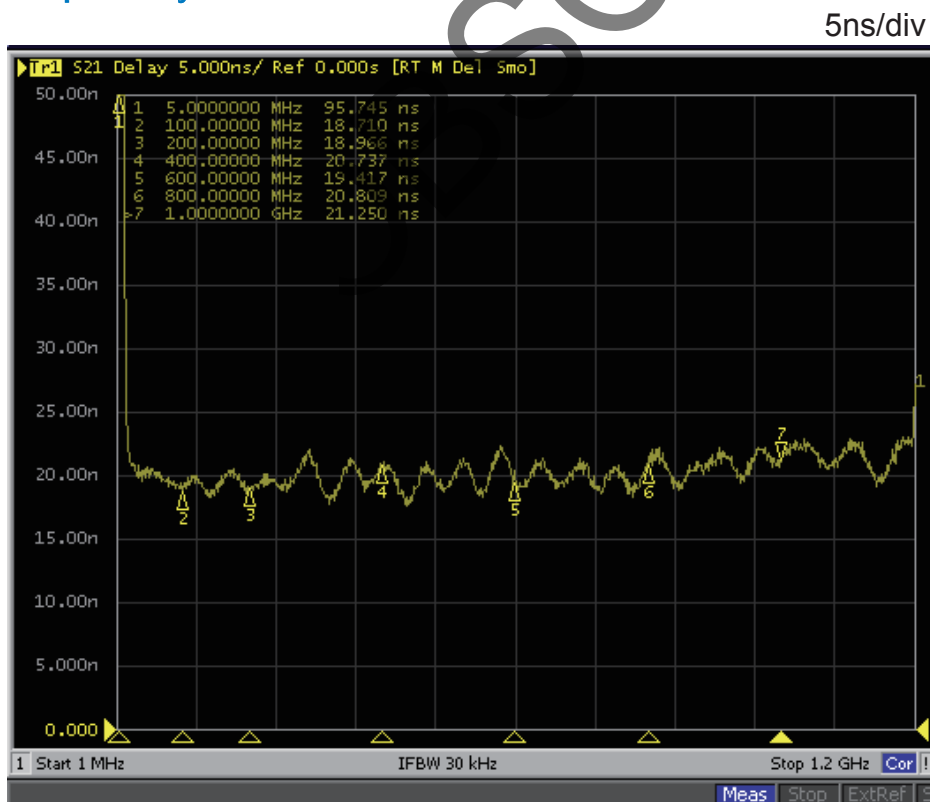


Frequency Range : 1MHz~1200MHz

REF : 54dB

Marker1 :	5MHz	54.905dB
Marker2 :	100MHz	54.652dB
Marker3 :	200MHz	54.453dB
Marker4 :	400MHz	56.535dB
Marker5 :	600MHz	56.268dB
Marker6 :	800MHz	55.665dB
Marker7 :	1000MHz	55.737dB

Group Delay

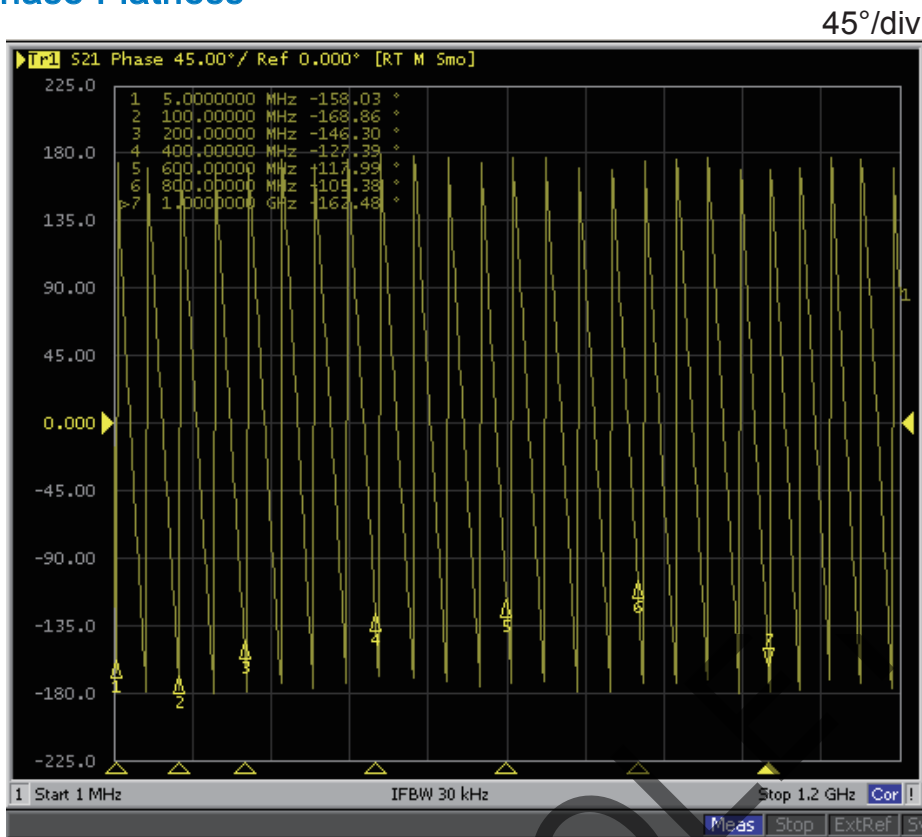


Frequency Range : 1MHz~1200MHz

REF : 0ns

Marker1 :	5MHz	95.745ns
Marker2 :	100MHz	18.710ns
Marker3 :	200MHz	18.966ns
Marker4 :	400MHz	20.737ns
Marker5 :	600MHz	19.417ns
Marker6 :	800MHz	20.809ns
Marker7 :	1000MHz	21.250ns

Phase Flatness



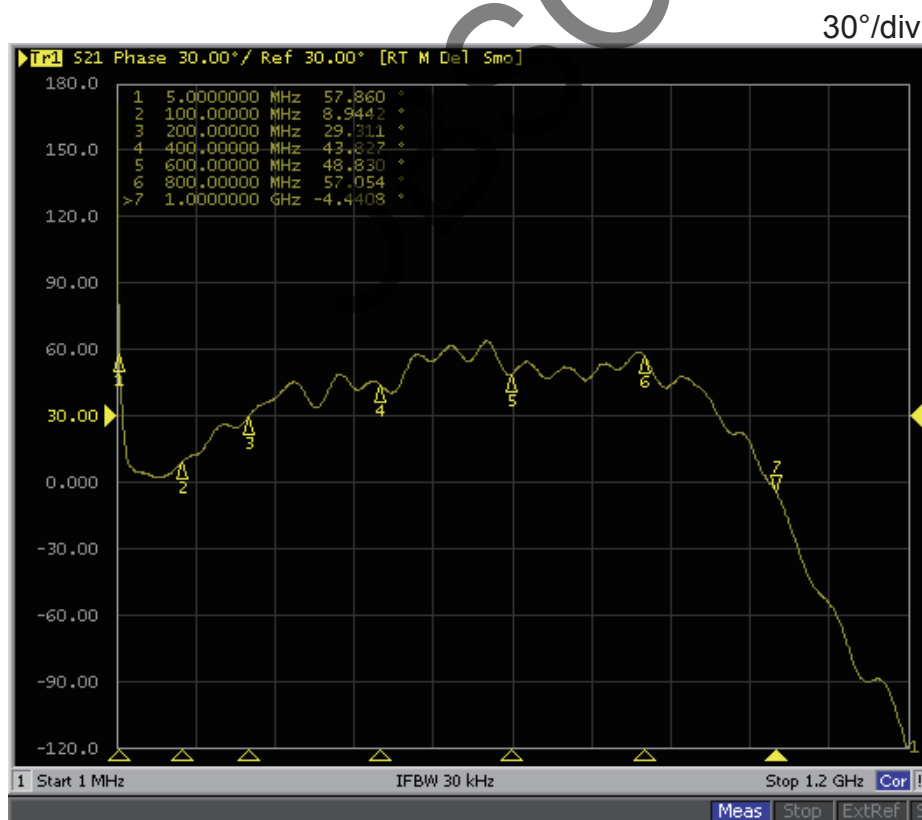
Frequency Range : 1MHz~1200MHz

← REF : 0°

Marker1 :	5MHz	-158.03°
Marker2 :	100MHz	-168.86°
Marker3 :	200MHz	-146.30°
Marker4 :	400MHz	-127.39°
Marker5 :	600MHz	-117.99°
Marker6 :	800MHz	-105.38°
Marker7 :	1000MHz	-162.48°

Phase offset=0°

※Electrical Delay=0nsec



Frequency Range : 1MHz~1200MHz

← REF : 30°

Marker1 :	5MHz	57.860°
Marker2 :	100MHz	8.9442°
Marker3 :	200MHz	29.311°
Marker4 :	400MHz	43.827°
Marker5 :	600MHz	48.830°
Marker6 :	800MHz	57.054°
Marker7 :	1000MHz	-4.4408°

Phase offset=-180°

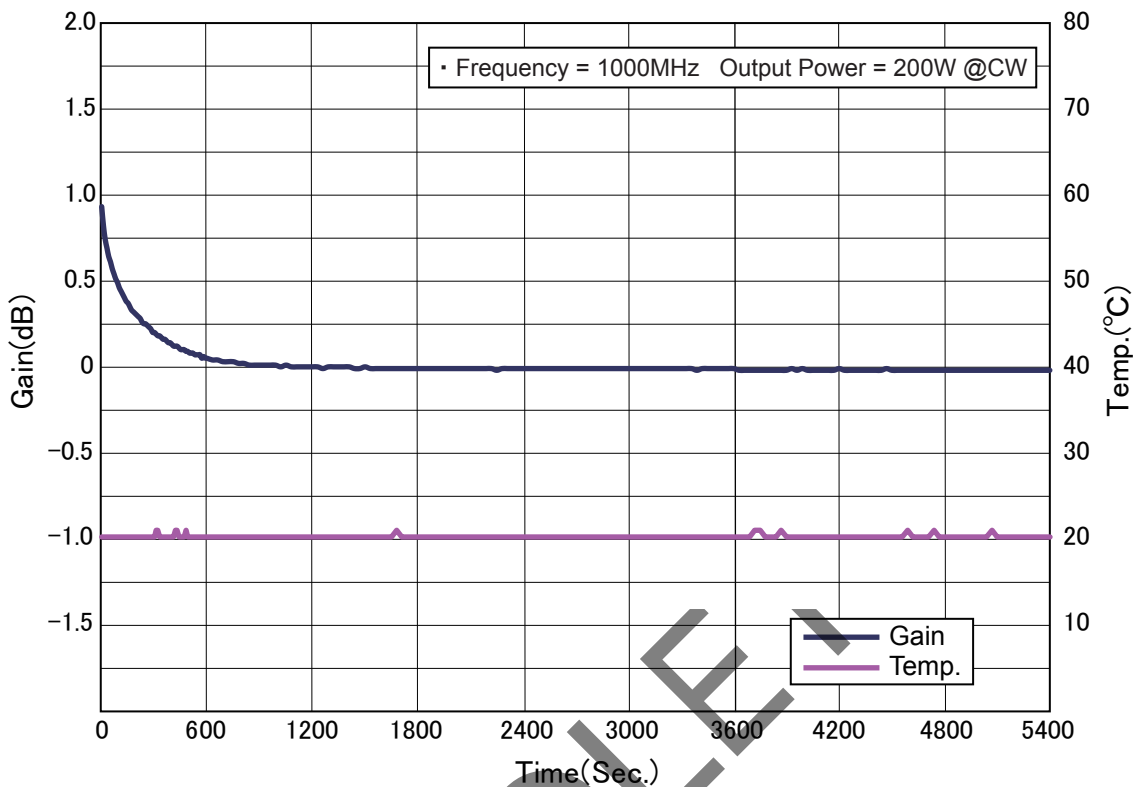
※Electrical Delay=19.939nsec

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".

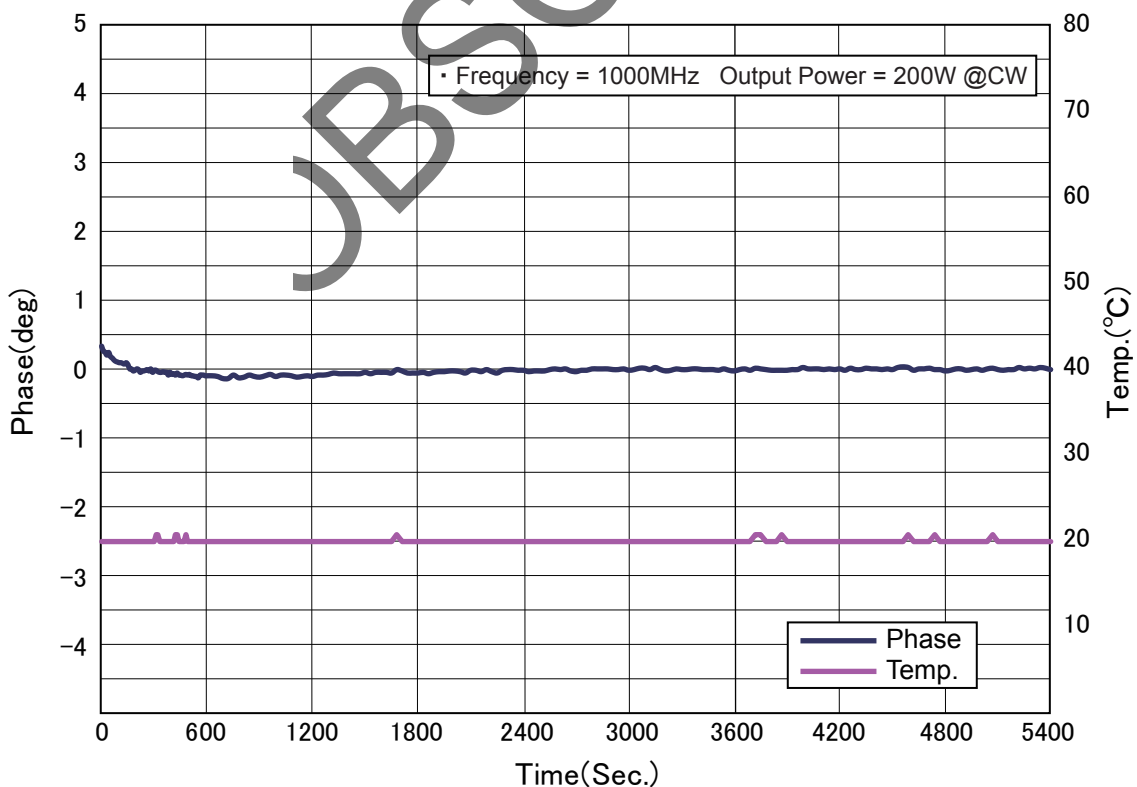
R&K Company Limited

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

Power Stability (Free Running Data at Room Temperature)



Phase Stability (Free Running Data at Room Temperature)



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".

R&K Company Limited

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>