

PULSED RF POWER AMPLIFIER

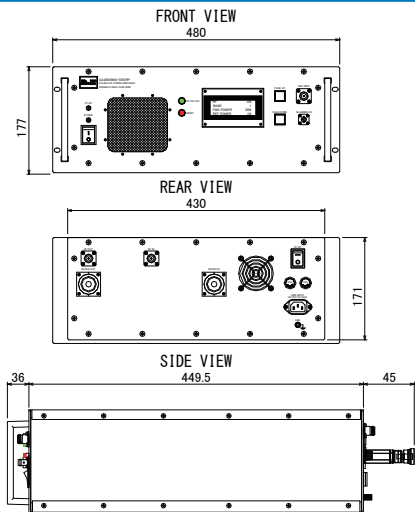


R&K-GA2856BW4-5555RPW



OUTLINE DRAWING

※IN MILLIMETERS



- Very High Stability (Both Phase & Level)
- All Solid-State Amplifier
- Frequency Range: 2856MHz ± 2MHz
- Output Power : 300W (min.) @Peak (Pulse)

APPLICATION

- Accelerator Application

SPECIFICATIONS @ +25°C

Frequency Range	: 2856MHz ± 2MHz
Small Signal Gain	: +55.0dB (min.)
Output Power	: 300W (min.) @Peak
	Pulse Width: 6μs Duty: 0.01%
Pulse Rise Time	: 30ns (max.)
Pulse Fall Time	: 30ns (max.)
Over/Under Shoot	: 3% (max.)
Pulse Flatness	: 1% (max.) @Flat-top
Impedance	: 50Ω
Input VSWR	: 1.2 (max.)
Output VSWR	: 1.5 (max.)
Maximum RF Input Power	: 0dBm
AC Supply Input	: AC100V ± 15% / 1 φ, 50 / 60Hz, 200VA
Operating Temperature	: 0°C to +35°C
Storage Temperature	: -15°C to +55°C
Connectors	: RF - IN N - FEMALE RF - OUT N - FEMALE
Size	: (W)480mm × (D)449.5mm × (H)177mm
Weight	: 35.0kg (max.)
Cooling	: Forced Air Cooling and Water Cooling
Protection Circuits	: Over Temperature Protection Power Supply Voltage Protection Output Over Power Protection With Output Circulator

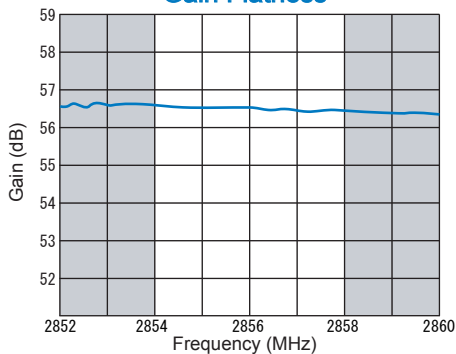
Other

HOW TO ORDER

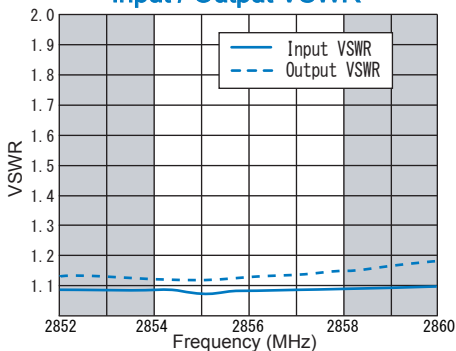
Model Name
R&K-GA2856BW4-5555RPW OP XX Option: Ask

TYPICAL PERFORMANCE (Temp @+25°C)

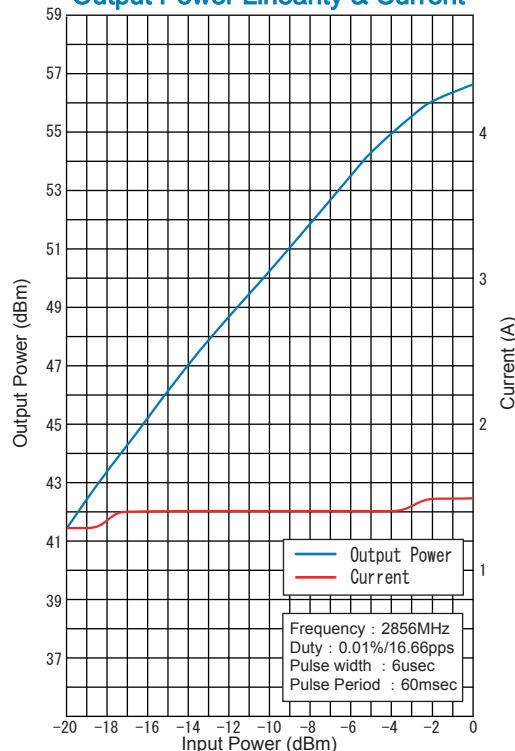
Gain Flatness



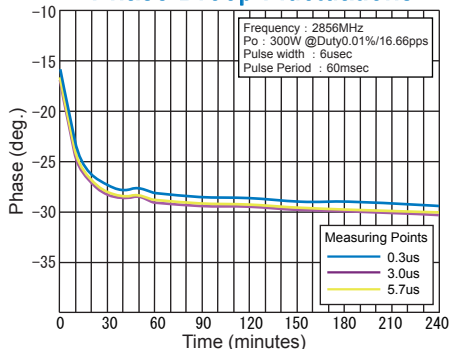
Input / Output VSWR



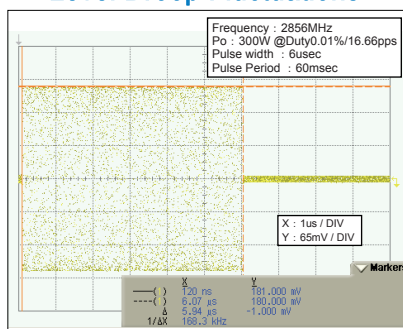
Output Power Linearity & Current



Phase Droop Fluctuations



Level Droop Fluctuations



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, R&K cannot export products to any country for use in military or defense applications.

R&K Company Limited

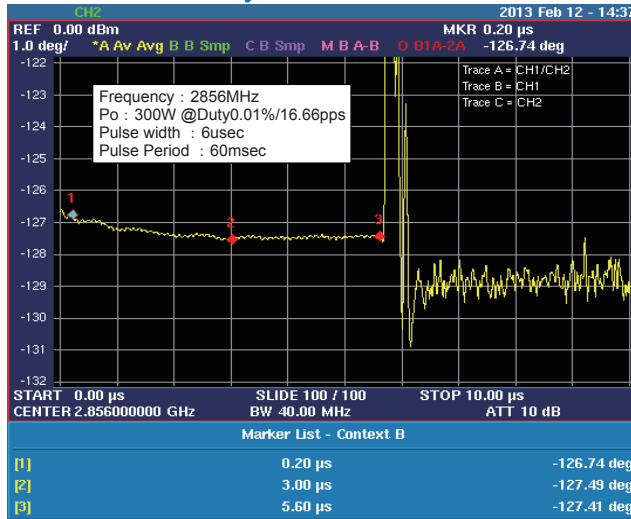
721-1 Maeda, Fuji-City, Shizuoka-Pref. 416-8577 Japan
Tel: +81-545-31-2600 E-mail: info@rkco.jp
Fax: +81-545-31-1600 URL: http://rk-microwave.com

TYPICAL PERFORMANCE (Temp @+25°C)

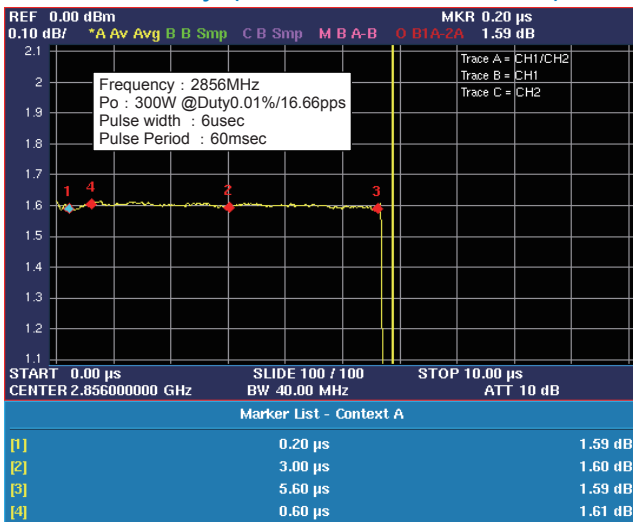
Gain / Phase Stability

R&K-GA2856BW4-5555RPW

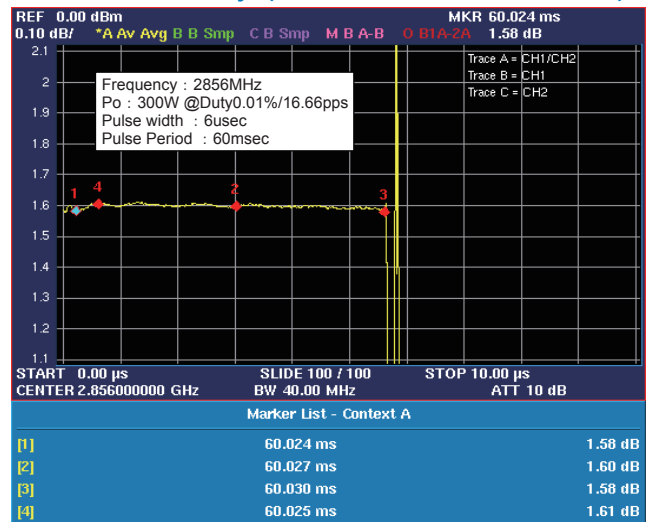
Phase Stability in Pulse Width



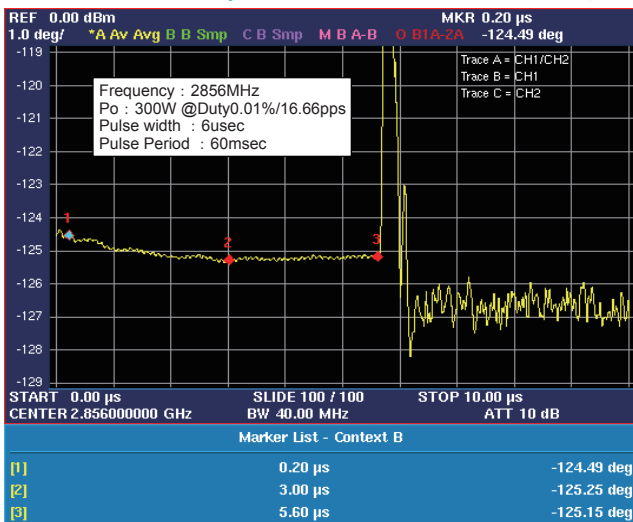
Gain Stability (1st Pulse Reference)



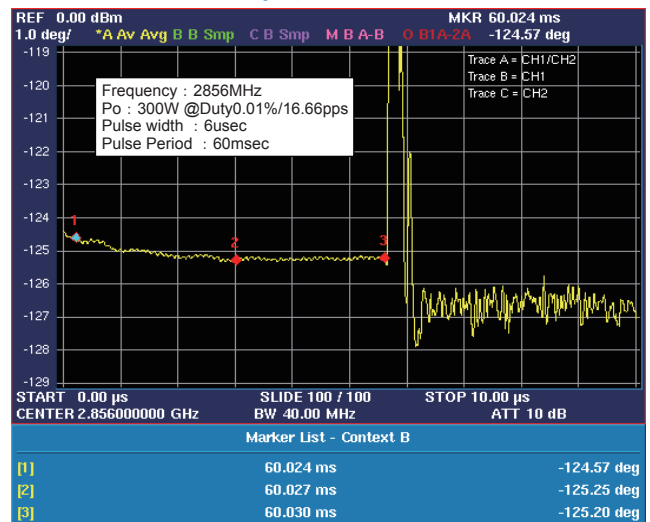
Gain Stability (After 60ms, 2nd Pulse)



Phase Stability (1st Pulse Reference)



Phase Stability (After 60ms, 2nd Pulse)



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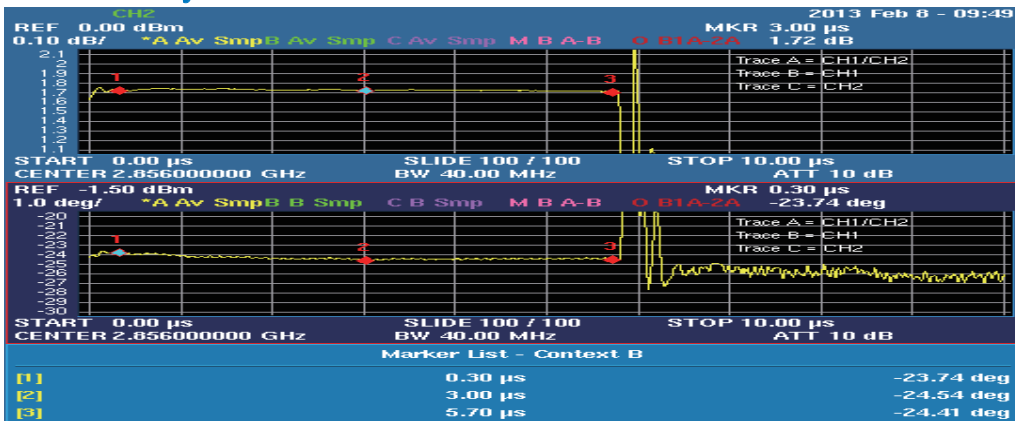
PULSED RF POWER AMPLIFIER



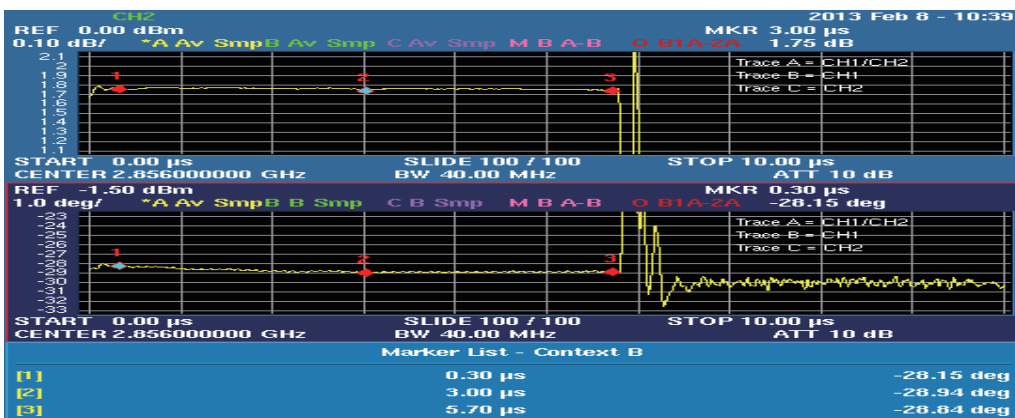
TYPICAL PERFORMANCE (Temp @+25°C)

Phase Stability

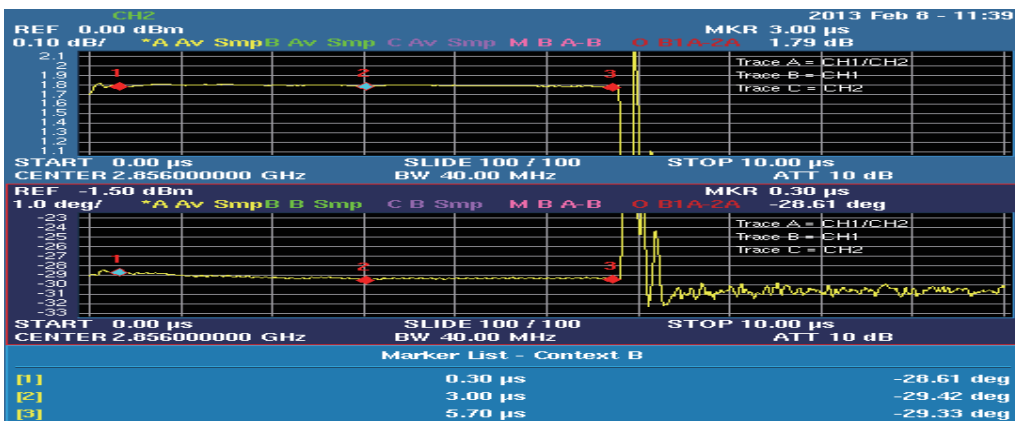
R&K-GA2856BW4-5555RPW



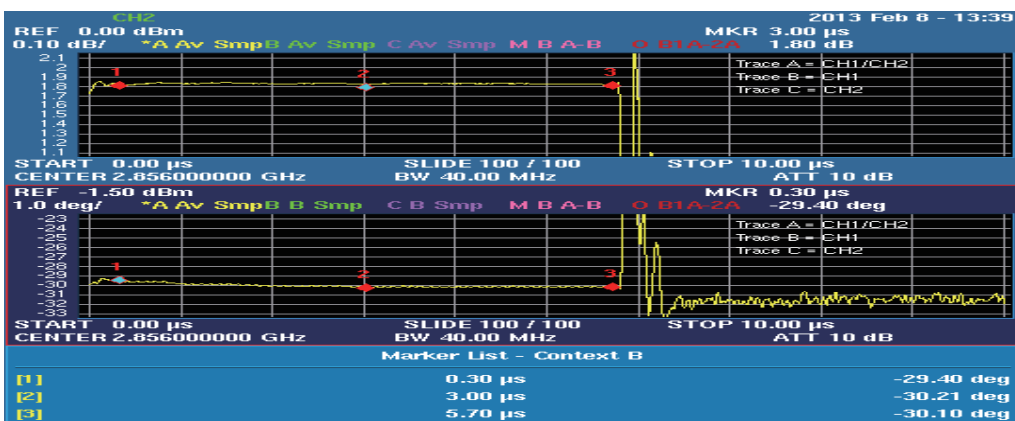
Frequency : 2856MHz
 Po : 300W
 Duty : 0.01%/16.66pps
 Pulse width : 6usec
 Pulse Period : 60msec
 10min. after turn on



Frequency : 2856MHz
 Po : 300W
 Duty : 0.01%/16.66pps
 Pulse width : 6usec
 Pulse Period : 60msec
 60min. after turn on



Frequency : 2856MHz
 Po : 300W
 Duty : 0.01%/16.66pps
 Pulse width : 6usec
 Pulse Period : 60msec
 120min. after turn on



Frequency : 2856MHz
 Po : 300W
 Duty : 0.01%/16.66pps
 Pulse width : 6usec
 Pulse Period : 60msec
 240min. after turn on

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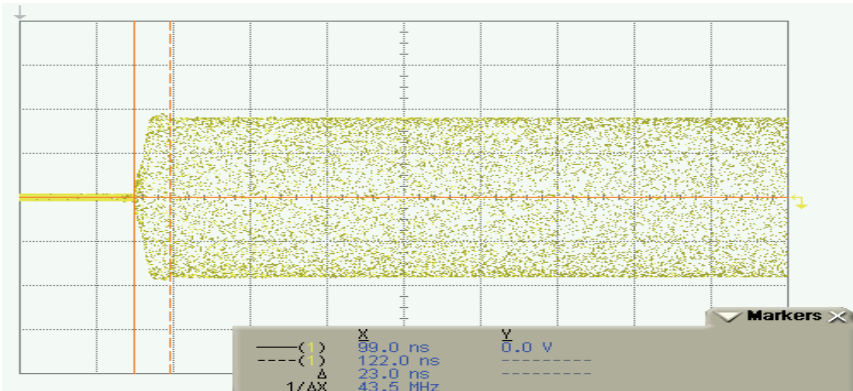
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TYPICAL PERFORMANCE (Temp @+25°C)

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Output Pulse Characteristics

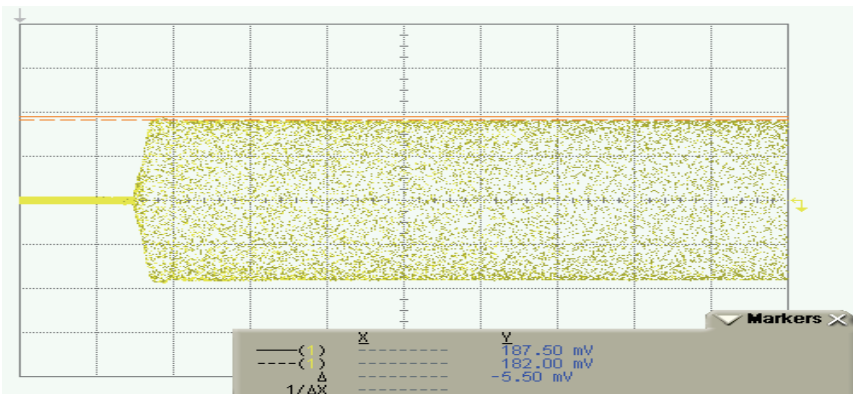
Pulse Rise



Frequency : 2856MHz
 Po : 300W @Duty0.01%/16.66pps
 Pulse width : 6usec
 Pulse Period : 60msec

X : 50ns / DIV
 Y : 100mV / DIV

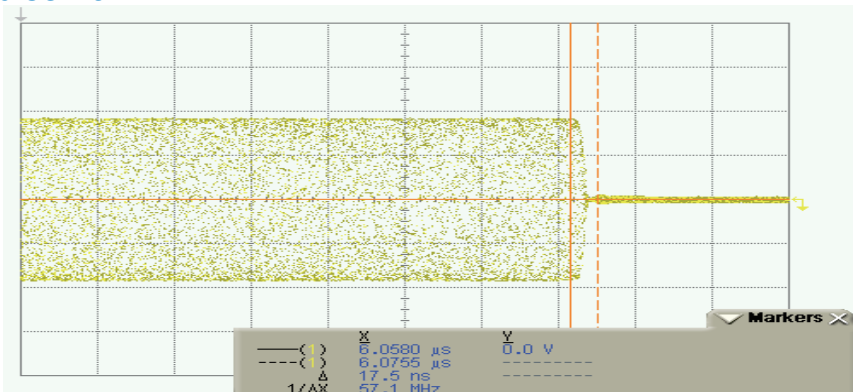
Over Shoot



Frequency : 2856MHz
 Po : 300W @Duty0.01%/16.66pps
 Pulse width : 6usec
 Pulse Period : 60msec

X : 50ns / DIV
 Y : 100mV / DIV

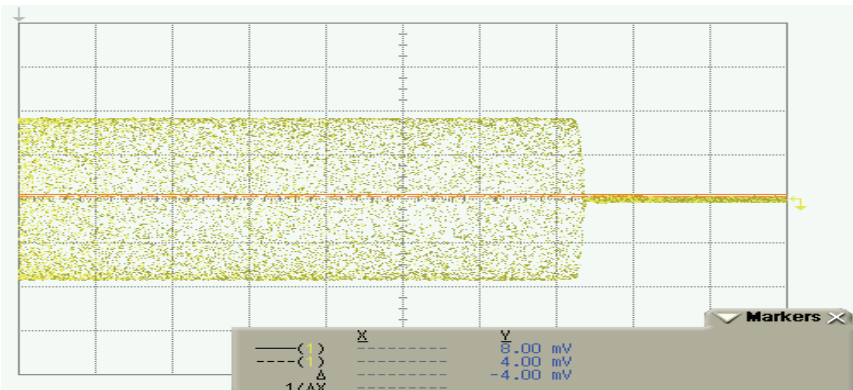
Pulse Fall



Frequency : 2856MHz
 Po : 300W @Duty0.01%/16.66pps
 Pulse width : 6usec
 Pulse Period : 60msec

X : 50ns / DIV
 Y : 100mV / DIV

Under Shoot



Frequency : 2856MHz
 Po : 300W @Duty0.01%/16.66pps
 Pulse width : 6usec
 Pulse Period : 60msec

X : 50ns / DIV
 Y : 100mV / DIV

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