

PULSED RF POWER AMPLIFIER



R&K-GA2856BW20-5861RP



- All Solid-State Amplifier
- Frequency Range: 2856MHz ± 10MHz
- Output Power : 1200W (min.) @ Peak (Pulse)

SPECIFICATIONS @ +25°C

Frequency Range	: 2856MHz ± 10MHz
Small Signal Gain	: +58.0dB (min.)
Output Power	: 1200W (min.) @ Peak Pulse Width: 5μs Duty: 0.05%
Pulse Rise Time	: 150ns (max.)
Pulse Fall Time	: 150ns (max.)
Over/Under Shoot	: 3% (max.)
Pulse Flatness	: 3% (max.) @ Flat-top
Phase Stability	: ± 3°
Level Stability	: ± 0.25dB
Harmonics	: -50.0dBc (max.) @ Po=1200W
Impedance	: 50Ω
Input VSWR	: 1.5 (max.)
Maximum RF Input Power	: +3.0dBm
AC Supply Input	: AC200V ± 10% / 1φ, 50/60Hz, 800VA

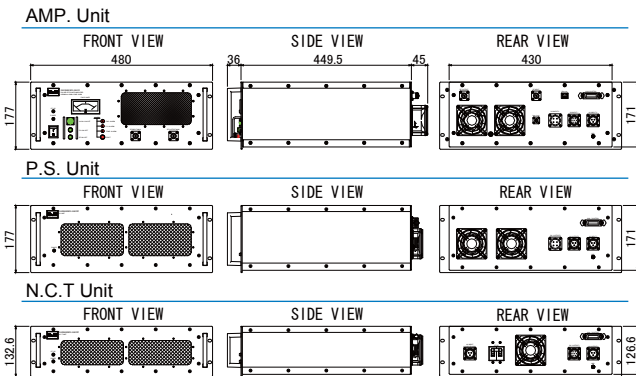
Operating Temperature	: 0°C to +35°C
Storage Temperature	: -15°C to +55°C
Connectors	: RF - IN N - FEMALE RF - OUT N - FEMALE
Size	AMP. Unit : (W)480mm × (D)449.5mm × (H)177mm P.S. Unit : (W)480mm × (D)449.5mm × (H)177mm N.C.T Unit : (W)480mm × (D)449.5mm × (H)132.6mm
Weight	: 100.0kg (max.)
Cooling	: Forced Air Cooling
Protection Circuits	: Over Temperature Protection Power Supply Voltage Protection With Output Circulator

HOW TO ORDER

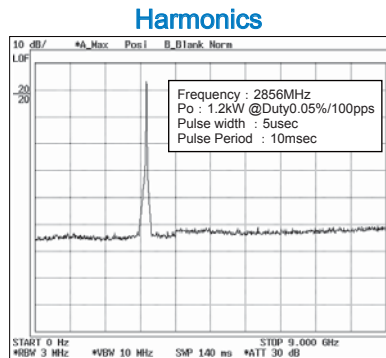
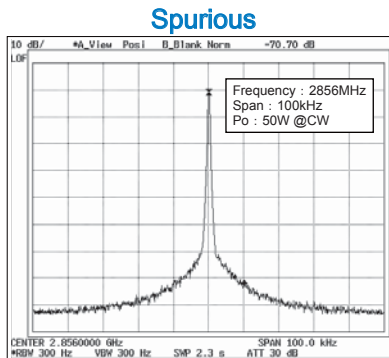
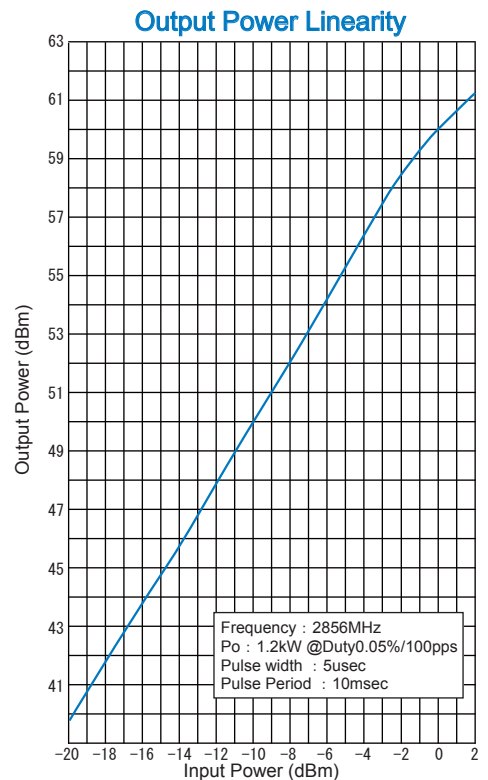
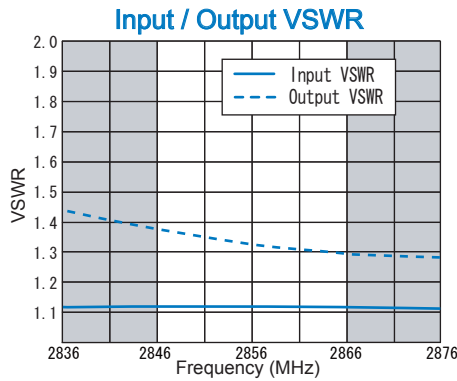
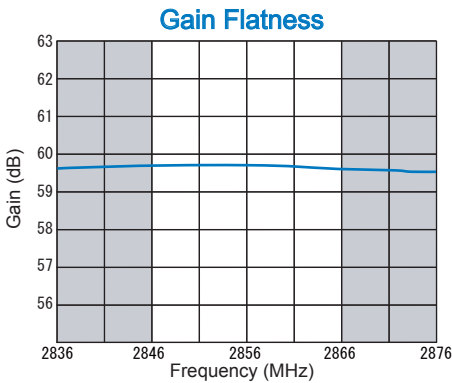
Model Name R&K-GA2856BW20-5861RP No Option

OUTLINE DRAWING

※ IN MILLIMETERS



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, 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

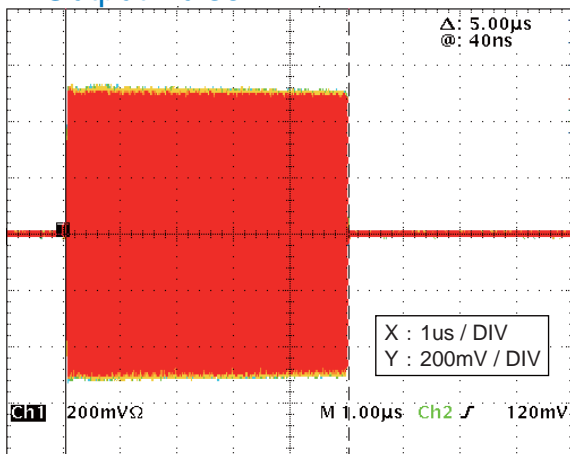
TYPICAL PERFORMANCE (Temp @+25°C)

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Output Pulse Characteristics

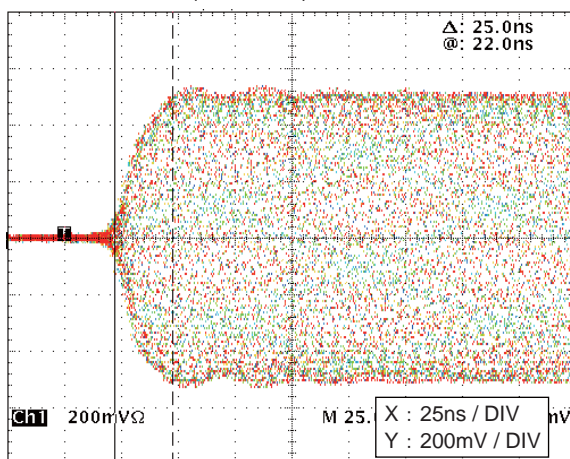
Frequency : 2856MHz
 Po : 1.2kW @Duty0.05%/100pps
 Pulse Width : 5usec
 Pulse Period : 10msec

Output Pulse



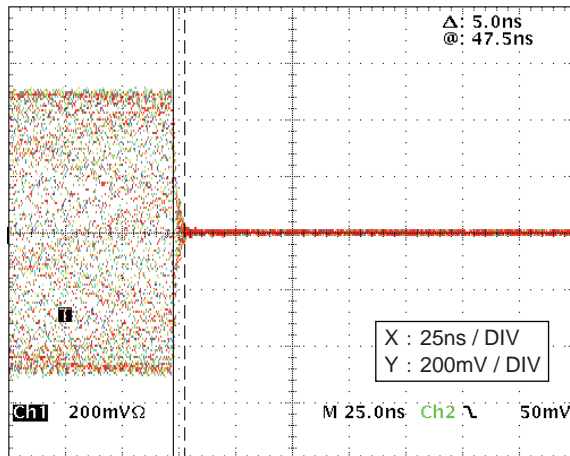
Pulse Rise

Rise Time : 25ns (10%-90%), Overshoot: $\leq 3\%$



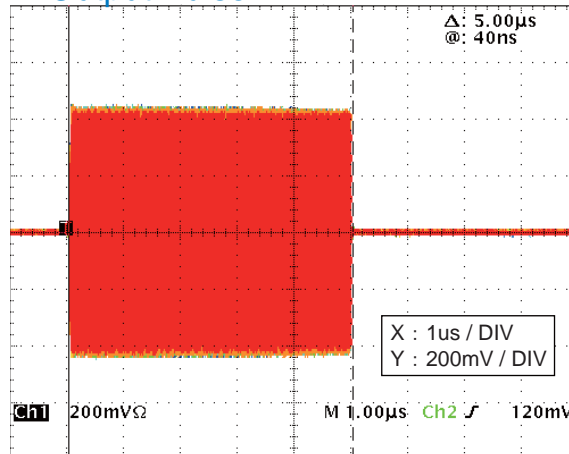
Pulse Fall

Fall Time : 5ns (90%-10%), Undershoot: $\leq 3\%$



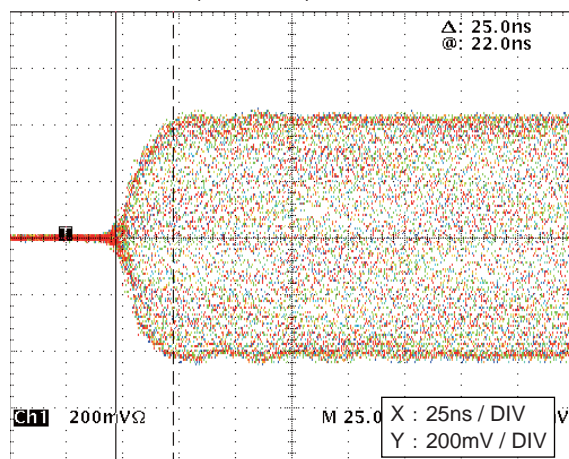
Frequency : 2856MHz
 Po : 800W @Duty0.05%/100pps
 Pulse Width : 5usec
 Pulse Period : 10msec

Output Pulse



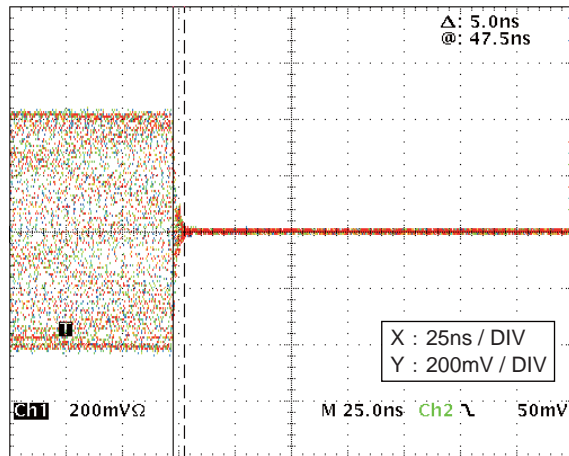
Pulse Rise

Rise Time : 25ns (10%-90%)



Pulse Fall

Fall Time : 5ns (90%-10%)



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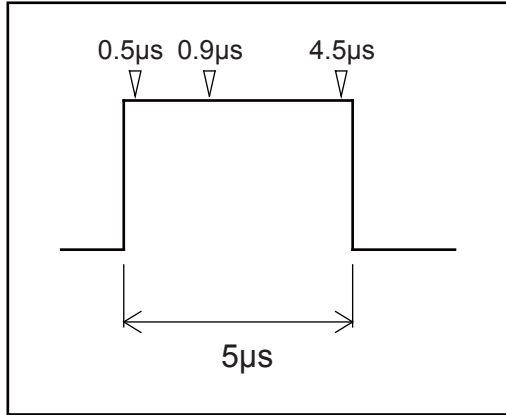
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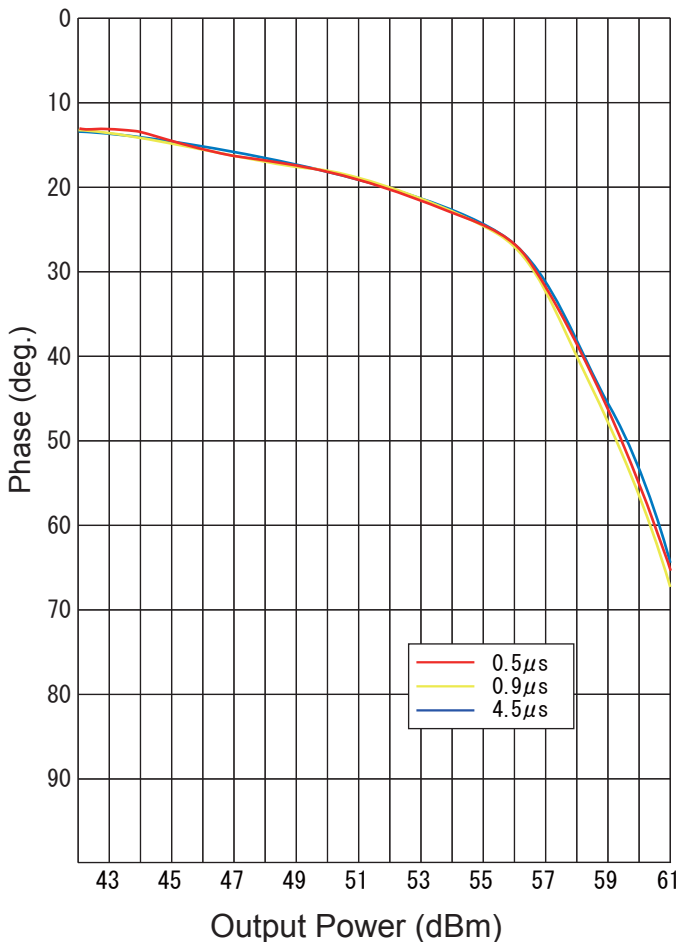
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Phase Stability

Measuring Points

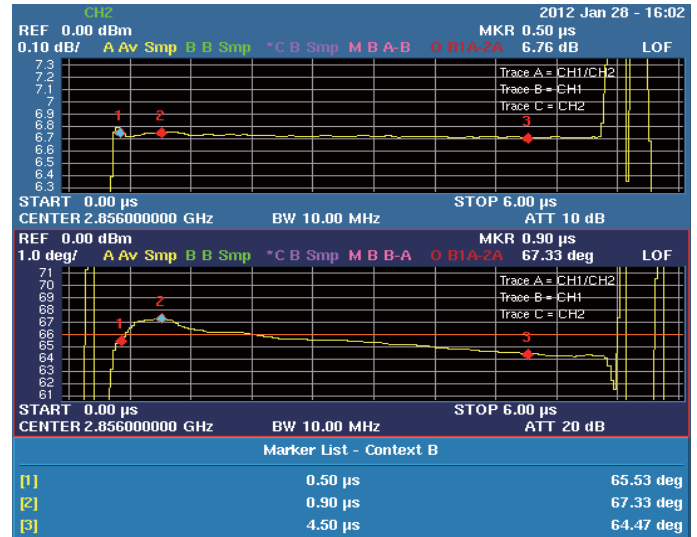


Phase Stability v.s. Output Power



Gain & Phase Flatness

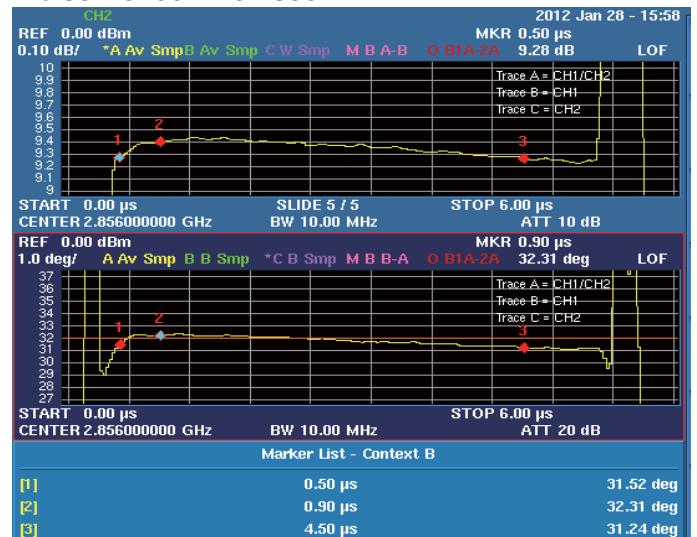
Frequency : 2856MHz
 Po : 1.2kW @Duty0.05%/100pps
 Pulse Width : 5usec
 Pulse Period : 10msec



ch1 Gain	ch2 Phase
m1 : 0.5us 6.76dB	m1 : 0.5us 65.53deg
m2 : 0.9us 6.75dB	m2 : 0.9us 67.33deg
m3 : 4.5us 6.72dB	m3 : 4.5us 64.47deg

Spec : Within 3% (0.25dBp-p) Spec : ±3deg
 Gain Flatness : 0.04dB Phase Flatness : ±1.43deg

Frequency : 2856MHz
 Po : 500W @Duty0.05%/100pps
 Pulse Width : 5usec
 Pulse Period : 10msec



ch1 Gain	ch2 Phase
m1 : 0.5us 9.28dB	m1 : 0.5us 31.52deg
m2 : 0.9us 9.40dB	m2 : 0.9us 32.31deg
m3 : 4.5us 9.28dB	m3 : 4.5us 31.24deg

Maximum Deviation : 0.26dB Maximum Deviation : 1.16deg

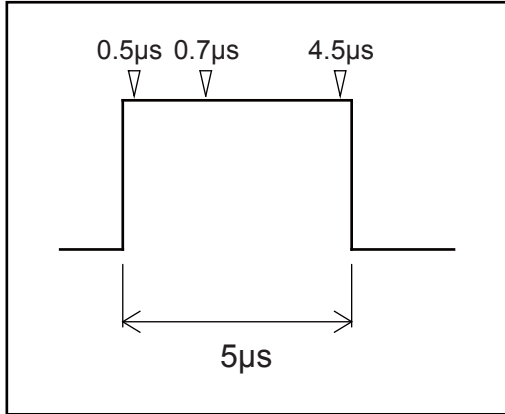
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TYPICAL PERFORMANCE (Temp @+25°C)

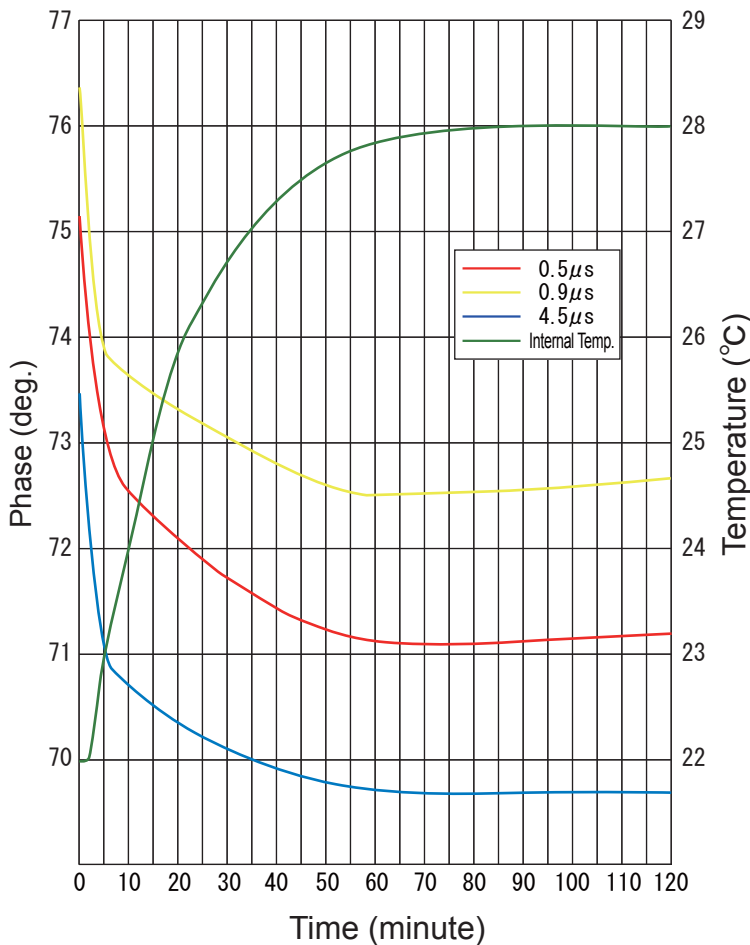
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Phase Stability

Measuring Points

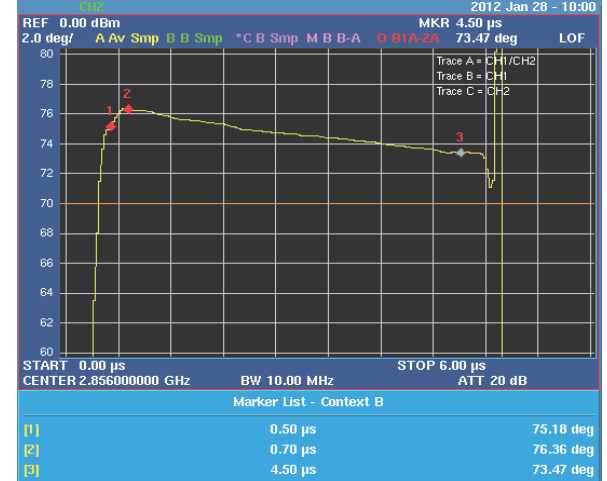


Phase Stability v.s. Time

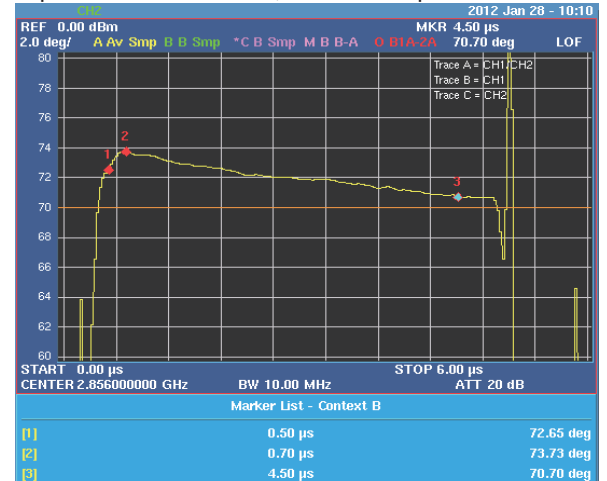


Frequency : 2856MHz
 Po : 1.2kW @Duty0.05%/100pps
 Pulse Width : 5usec
 Pulse Period : 10msec

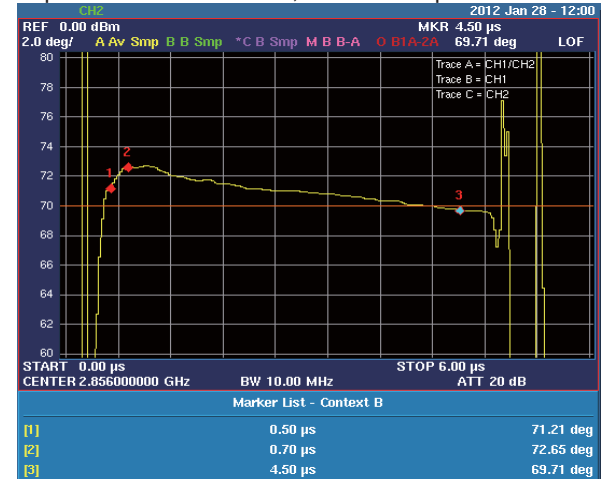
Elapsed Time : 10 seconds, Internal Temperature : +22°C



Elapsed Time : 10 minutes, Internal Temperature : +24°C



Elapsed Time : 120 minutes, Internal Temperature : +28°C



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