A009K321-6060R

Class A Linear Solid-State Amplifier
- Broadband Frequency: 9kHz~320MHz
- Output Power (CW): 1kW (typ.) @ 1dB Comp.

**APPLICATION**
- Accelerator (Bunch-Beam-FeedBack)
- Etc...

**SPECIFICATIONS @ +25°C**

- **Frequency Range**: 9kHz ~ 320MHz
- **Small Signal Gain**: +6.0 dB (min.)
- **Gain Flatness**: ±2.0 dB (max.)
- **Output Power (CW)**: 1kW (typ.), 800W (min.) @ 1dB Comp.
- **Operation Mode**: Class A
- **Spurious**: -20.0 dBc (max.) @ Po=1kW
- **Impedance**: 50 Ω
- **Input Return Loss**: 14dB (min.) / VSWR : 1.5 (max.)
- **Maximum RF Input Power**: +1.0dBm
- **AC Supply Input**: AC200V ± 15% / 3φ*Delta Connection, 50 / 60Hz
- **Operating Temperature**: 0°C to +35°C
- **Storage Temperature**: -15°C to +65°C
- **Connectors**:
  - Control Unit: RF - IN N - FEMALE @ REAR PANEL
  - Combiner Unit: RF - OUT 7/16" - FEMALE @ REAR PANEL
  - Final Amplifier Unit: (W)440mm × (D)850mm × (H)177mm (EIA: 4U)
  - Excluding Projection
- **Weight**: 124kg (typ.)
- **Cooling**: Forced Air Cooling
- **Protection Circuits**: Over Temperature Protection
  - Power Supply Voltage Protection
  - Output Over Power Protection (at 1.1kW)
  - Output Over Reflected Power Protection (at 600W)
- **Remote Interface**:
  - (Standard) GPIB (IEEE-488)
  - (Optional) Ethernet, RS-232C
- **Other Functions**:
  - R&K Multi Monitoring (Each 1 data @ SD-Card / sec.)
  - Forward Power Metering Data
  - Reflection Power Metering Data
  - +50V Device Voltage Monitoring (× 2ea.)
  - +50V Device Current Monitoring (× 10ea.)
  - HeatSink Temperature Monitoring (× 4ea.)
  - Safety Interlock (EMERGENCY BNC INPUT) (× 1ea.)

**TYPICAL PERFORMANCE (Temp @+25°C)**

- **Small Signal Gain**
- **Input / Output Return Loss**
- **Output Power Linearity**
- **Output Harmonics**

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R&K Company Limited
721-1 Maeda, Fuji-Shi, Shizuoka-Pref. 416-8577 Japan
Tel: +81-545-31-2600 E-mail: info@rko.jp
Fax: +81-545-31-1600 URL: http://rk-microwave.com

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**TYPICAL PERFORMANCE (Temp @+25℃)**

**RF POWER AMPLIFIER**

**R&K-A009K321-6060R**

**Group Delay (Scale: 5μs/Div)**

- **Input signal**: 150mV peak @ 50Ω
- **Output signal**: -224V peak @ 50Ω

\[ \text{Output} = \frac{-224V \times -224V}{50\Omega} = 1003W \text{ peak} \]

**Group Delay (Scale: 5ns/Div)**

- **Input signal**: 150mV peak @ 50Ω
- **Output signal**: 224V peak @ 50Ω

\[ \text{Output} = \frac{224V \times 224V}{50\Omega} = 1003W \text{ peak} \]

**Attenuation 1/1000 (-60dB)**

**OUTLINE DRAWING**

*IN MILLIMETERS*

**FRONT VIEW**

- 480
- 440

**SIDE VIEW**

- 850

**REAR VIEW**

**R&K Company Limited**

721-1 Maeda, Fuji-City, Shizuoka-Pref. 416-8577 Japan

Tel: +81-543-31-1800  E-mail: info@rkco.jp

Fax: +81-543-31-1800  URL: http://rk-microwave.com

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