**R&K-A030K102-3040R**

**CLASS A LINEAR SOLID-STATE AMPLIFIER**

- Broadband Frequency: 30kHz ~ 1000MHz
- Output Power (CW): 10W (min.) @1dB Comp.

**APPLICATION**

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

**SPECIFICATIONS @ +25°C**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>30kHz ~ 1000MHz</td>
</tr>
<tr>
<td>Small Signal Gain</td>
<td>+30.0dB (typ.) +28.0dB (min.)</td>
</tr>
<tr>
<td>Gain Flatness</td>
<td>±2.0dB (max.)</td>
</tr>
<tr>
<td>Operation Mode</td>
<td>Class A</td>
</tr>
<tr>
<td>Output Power (CW)</td>
<td>10W (min.) @1dB Comp.</td>
</tr>
<tr>
<td>Output I.C.P</td>
<td>+50.0dBm (typ.)</td>
</tr>
<tr>
<td>Noise Figure</td>
<td>10dB (typ.)</td>
</tr>
<tr>
<td>Harmonics</td>
<td>-18.0dBc (max.) @Po=10W</td>
</tr>
<tr>
<td>Spurious</td>
<td>-60.0dBc (max.) @Po=10W</td>
</tr>
<tr>
<td>Impedance</td>
<td>50Ω</td>
</tr>
<tr>
<td>Input Return Loss</td>
<td>9.5dB (min.) / VSWR: 2.0 (max.)</td>
</tr>
<tr>
<td>Maximum RF Input Power</td>
<td>+17dBm</td>
</tr>
<tr>
<td>AC Supply Input</td>
<td>AC100V~240V/1φ, 50/60Hz, 200VA</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>−10°C to +45°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>−15°C to +65°C</td>
</tr>
<tr>
<td>Connectors</td>
<td>RF-IN SMA - FEMALE, RF-OUT SMA - FEMALE</td>
</tr>
<tr>
<td>Size</td>
<td>(W)260mm×(D)350mm×(H)177mm (EIA:4U)</td>
</tr>
<tr>
<td>Weight</td>
<td>10.0kg (max.)</td>
</tr>
<tr>
<td>Cooling</td>
<td>Forced Air Cooling</td>
</tr>
<tr>
<td>Protection Circuits</td>
<td>Over Temperature Protection, Power Supply Voltage Protection</td>
</tr>
</tbody>
</table>

**TYPICAL PERFORMANCE (Temp @+25°C)**

- **Gain Flatness**
- **Input VSWR**
- **Output Power Linearity**
- **Output Harmonics**
- **Output Power 1dB Gain Comp.**

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**Pulse Characteristics**

- **Frequency** = 1000MHz
  - Repetition = 5Mpps
  - Pulse Width = 100ns
  - 20ns / DIV

- **Frequency** = 900MHz
  - Repetition = 5Mpps
  - Pulse Width = 100ns
  - 20ns / DIV

- **Frequency** = 800MHz
  - Repetition = 5Mpps
  - Pulse Width = 100ns
  - 20ns / DIV

- **Frequency** = 700MHz
  - Repetition = 5Mpps
  - Pulse Width = 100ns
  - 20ns / DIV

- **Frequency** = 600MHz
  - Repetition = 5Mpps
  - Pulse Width = 100ns
  - 20ns / DIV

- **Frequency** = 500MHz
  - Repetition = 5Mpps
  - Pulse Width = 100ns
  - 20ns / DIV

- **Frequency** = 400MHz
  - Repetition = 5Mpps
  - Pulse Width = 100ns
  - 20ns / DIV

- **Frequency** = 300MHz
  - Repetition = 2.5Mpps
  - Pulse Width = 200ns
  - 40ns / DIV

- **Frequency** = 200MHz
  - Repetition = 2.5Mpps
  - Pulse Width = 200ns
  - 40ns / DIV

- **Frequency** = 100MHz
  - Repetition = 2.5Mpps
  - Pulse Width = 200ns
  - 40ns / DIV

- **Frequency** = 50MHz
  - Repetition = 2.5Mpps
  - Pulse Width = 200ns
  - 40ns / DIV

- **Frequency** = 25MHz
  - Repetition = 1Mpps
  - Pulse Width = 400ns
  - 100ns / DIV

- **Frequency** = 10MHz
  - Repetition = 1Mpps
  - Pulse Width = 500ns
  - 100ns / DIV

- **Frequency** = 2MHz
  - Repetition = 100kpps
  - Pulse Width = 5μs
  - 1μs / DIV

- **Frequency** = 5MHz
  - Repetition = 500kpps
  - Pulse Width = 1μs
  - 200ns / DIV

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