All Solid-State Amplifier
- Frequency Range: 114.24MHz ± 1MHz
- Output Power (Pulse): 12kW @ Peak

APPLICATION
- Accelerator Application

SPECIFICATIONS @ +25°C
- Frequency Range: 114.24MHz ± 1MHz
- Gain: +60.8dB (min.) @ Po=12kW
- Output Power (Pulse): 12kW (min.) @ Peak
- Pulse Width: 10μs ~ 100μs
- Repetition: 50pps (max.)
- Duty: 0.5% (max.)
- Input Return Loss: ±0.1% (max.) VSWR : 1.2 (max.)
- Voltage Fluctuation: ±0.1% (max.) @ 114.24MHz: Po=12kW
- Phase Fluctuation: ±0.1° (max.) @ 114.24MHz: Po=12kW
- Impedance: 50Ω
- Maximum RF Input Power: +10dBm @ Peak
- AC Supply Input: AC200V ±10%/1φ, 50/60Hz, 500VA
- Operating Temperature: +15℃ to +35℃
- Storage Temperature: −15℃ to +55℃
- Connectors: RF-IN N-FEMALE @REAR PANEL
- RF-OUT 7/16”-FEMALE @REAR PANEL
- Size: (W)480mm×(D)649.5mm×(H)310.4mm (EIA:7U)
- Weight: 76.0kg (typ.)
- Cooling: Water Cooling
- Water Input Pressure: 1MPa
- Water Temperature: +30℃
- Water Flow Rate: 3ℓ/minute
- Over Temperature Protection
- Power Supply Voltage Protection
- Output Over Power Protection (at 12.6kW)
- Forward RF Monitor Out (Coupling:60dB)
- Reflected RF Monitor Out (Coupling:60dB)

Other Function
- With Output Circulator (each final device)
- Over Temperature Protection
- Power Supply Voltage Protection
- Output Over Power Protection (at 12.6kW)
- Forward RF Monitor Out (Coupling:60dB)
- Reflected RF Monitor Out (Coupling:60dB)

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”.

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TYPICAL PERFORMANCE (Temp @+25°C)

■ Short-Term Voltage & Phase Fluctuation

- Frequency = 114.24 MHz / Pulse Width = 10 μs

Amplitude vs Time

Phase vs Time

- Frequency = 114.24 MHz / Pulse Width = 50 μs

Amplitude vs Time

Phase vs Time

- Frequency = 114.24 MHz / Pulse Width = 90 μs

Amplitude vs Time

Phase vs Time

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RF POWER AMPLIFIER

TYPICAL PERFORMANCE (Temp @+25°C)

R&K-CA114BW2-6171RP

RF Stability Output Power vs Time

-1dB

Frequency = 114.24MHz
Output Power = 12kW Pulse

Detect Voltage (V)
Heatsink Temperature (°C)

Time(Hour)

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