1) DOUBLE SHIELDED RACK CONSTRUCTION
   Internal heat is water-cooled and discharged outside by self-contained heat exchanger. Double-layer housing provides high RF/EMI shielding performance.

2) WILKINSON RADIAL COMBINER
   Single-stage power combining of output transistors protected by each respective ferrite circulator provides high reliability in long-term operation.

3) BROADCAST-TRANSMITTER-LEVEL REDUNDANCY
   High redundancy design of power supplies provides fault-tolerant and sustainable system operation.

4) PASSIVE ANALOG PRE-DISTORTION
   Very ideal AB-class linear power amplifier is realized by passive analog predistortion circuit despite poor linearity of LD-MOS transistor.

5) MULTIPLE CPU CONTROLLER AND SENSORS
   Multiple CPUs monitor a total of 85 points and save the status data to an internal SD memory card by use of Modbus protocol and through Ethernet.

6) ADVANCED ANALOG RF POWER TECHNOLOGY
   Short-term (1sec) phase stability in free-running operation is within 0.1deg and RF voltage level stability is 0.1%.
TYPICAL PERFORMANCE (Temp @+25℃)

Gain Flatness @7kW

Gain Flatness at 7kW shows a constant gain across the specified frequency range.

Gain @1300MHz / 2.8kW to 7kW drive

Gain at 1300MHz remains relatively constant from 2.8kW to 7kW drive, with a slight decrease as the drive level increases.

Phase @1300MHz / 2.8kW to 7kW drive

Phase at 1300MHz shows a slight increase as the drive level increases from 2.8kW to 7kW.

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”.

R&K Company Limited
721-1 Maeda, Fuji-City, Shizuoka-Pref. 416-8577 Japan
Tel: +81-543-31-2600 E-mail: info@rkco.jp
Fax: +81-543-31-1600 URL: http://rk-microwave.com
TYPICAL PERFORMANCE (Temp @+25℃)

RF POWER AMPLIFIER

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”.

R&K-Ca1300BW1-6068R-SL

Harmonics

Spurious

Output Power Linearity & Efficiency

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)

**Long-Term Amplitude Stability**

- Frequency: 1300MHz
- Output Power: 7kW

**Long-Term Phase Stability**

- Frequency: 1300MHz
- Output Power: 7kW

**Short-Term Amplitude Stability** [Packet (1sec.) Sampling every 10 minutes]

- Frequency: 1300MHz
- Output Power: 7kW

**Short-Term Phase Stability** [Packet (1sec.) Sampling every 10 minutes]

- Frequency: 1300MHz
- Output Power: 7kW

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”. 

R&K Company Limited
721-1 Maeda, Fuji-City, Shizuoka-Pref. 416-8577 Japan
Tel: +81-545-31-2800 E-mail: info@rkco.jp
Fax: +81-545-31-1800 URL: http://rk-microwave.com
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.”
TYPICAL PERFORMANCE (Temp @+25℃)

R&K-CA1300BW1-6068R-SL

AM-AM / AM-PM Performance @Drain Voltage Control
Gain & Phase Flatness

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".