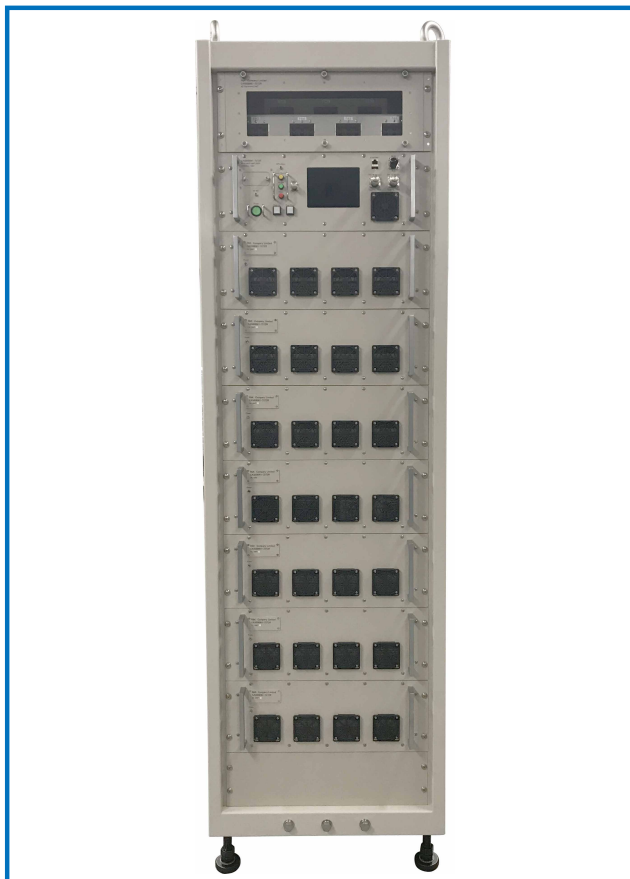


## R&K-CA500BW1-7272R



- All Solid-State Amplifier
- Frequency Range : 500MHz  $\pm$  0.5MHz
- Output Power (CW) : 15kW (min.) @2dB Comp.

### APPLICATION

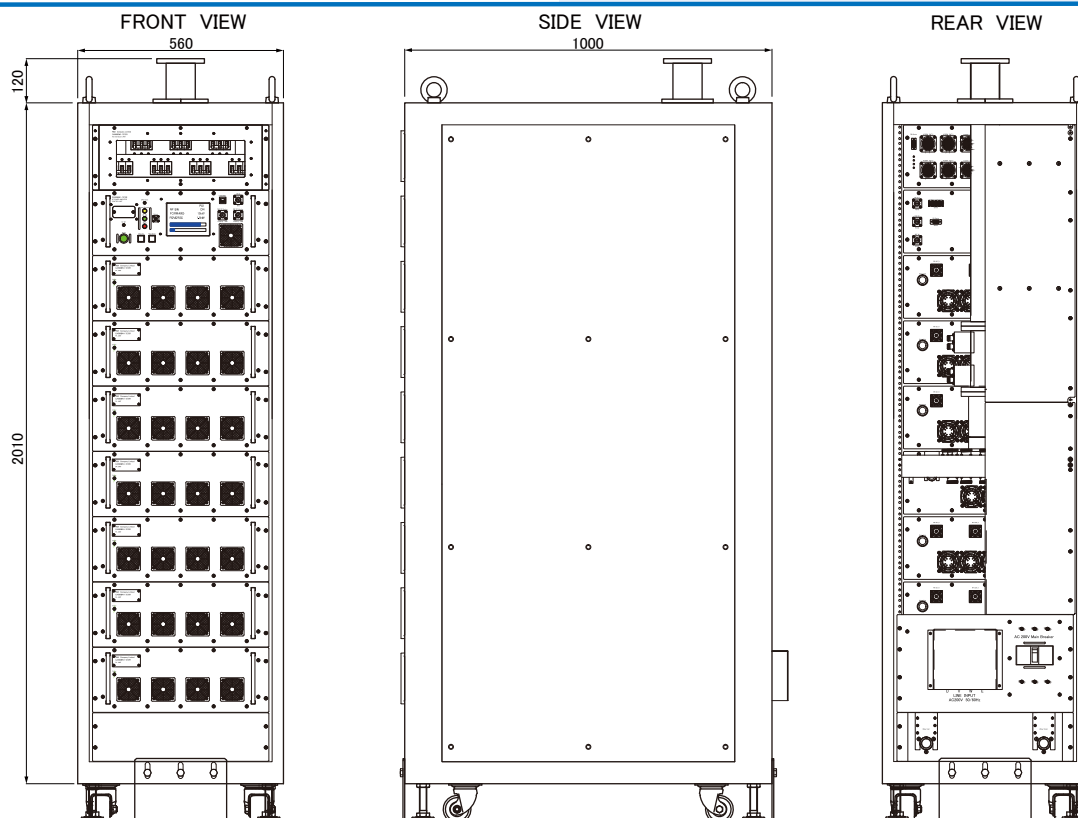
- Accelerator

### SPECIFICATIONS @ +25°C

Frequency Range	: 500MHz $\pm$ 0.5MHz
Small Signal Gain	: +72.0dB (min.) @Po=15kW
Gain Flatness	: $\pm$ 0.5dB (max.) @Po=15kW
Output Power (CW)	: 15kW (min.) @2dB Comp.
Operation Mode	: Class AB
RF Stability	Amplitude: 0.1%
	Phase : 0.1deg.
Harmonics	: -30.0dBc (max.) @Po=15kW
Spurious	: -70.0dBc (max.) @Po=15kW
Impedance	: 50 $\Omega$
Input Return Loss	: 14.0dB (min.) / VSWR : 1.5 (max.)
Output Return Loss	: 10.0dB (min.) / VSWR : 2.0 (max.)
Maximum RF Input Power	: +0.5dBm
AC Supply Input	: AC200V $\pm$ 15% / 3 $\phi$ *Delta Connection, 50/60Hz, 38kVA
Operating Temperature	: +10°C to +35°C
Storage Temperature	: -15°C to +55°C
Connectors	: RF-IN N-FEMALE @FRONT PANEL
	: RF-OUT 3-1/8"EIA Flange @TOP BOARD
Size	: (W)560mm $\times$ (D)1000mm $\times$ (H)2010mm
Weight	: 600kg (typ.)
Cooling	: Water Cooling
Protection Circuits	: Over Temperature Protection
(All not listed)	Power Supply Voltage Protection
	Input Over Power Protection(@ +0.5dBm)
	Output Over Power Protection(@16kW)
	Output Over Reflected Power Protection(@9kW)
Remote Interface	: Ethernet
Other Functions	: R&K Multi Monitoring System
	: With Output Circulator (each final device)

### OUTLINE DRAWING

※IN MILLIMETERS



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".

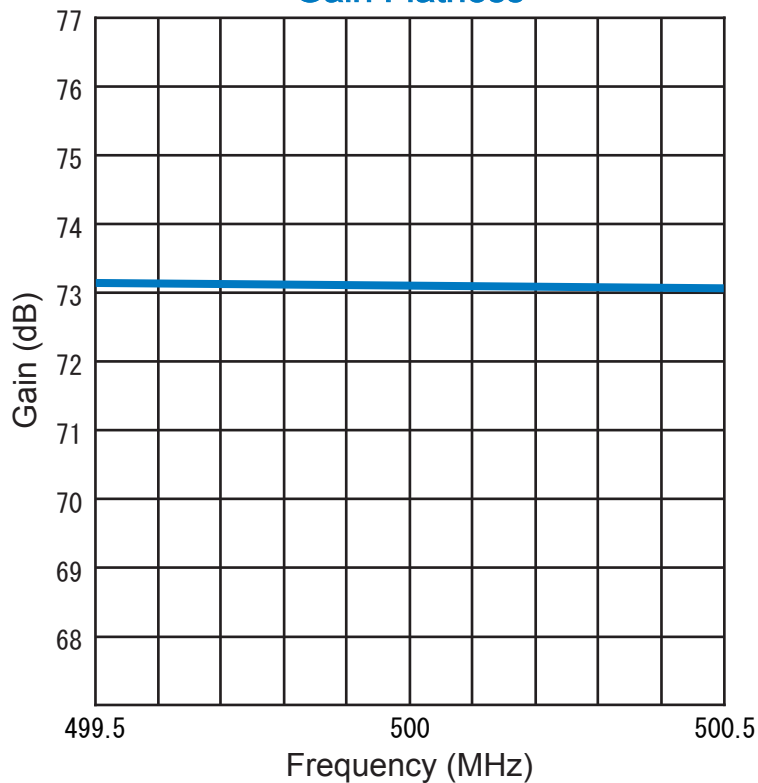
## R&K Company Limited

721-1 Maeda, Fuji-City, Shizuoka-Pref. 416-8577 Japan  
 Tel : +81-545-31-2600 E-mail : info@rkco.jp  
 Fax : +81-545-31-1600 URL : http://rk-microwave.com

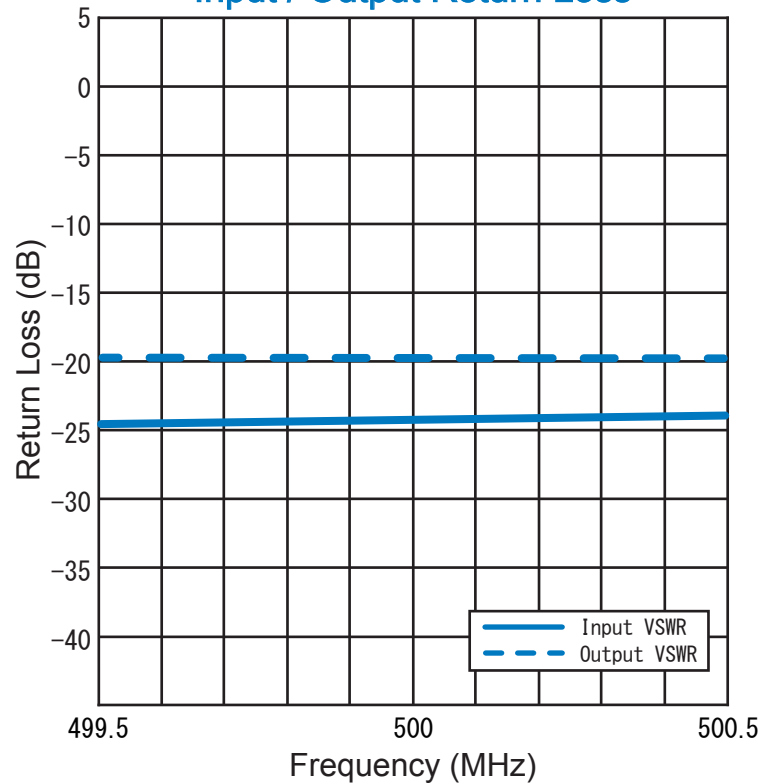
## TYPICAL PERFORMANCE (Temp @+25°C)

R&K-CA500BW1-7272R

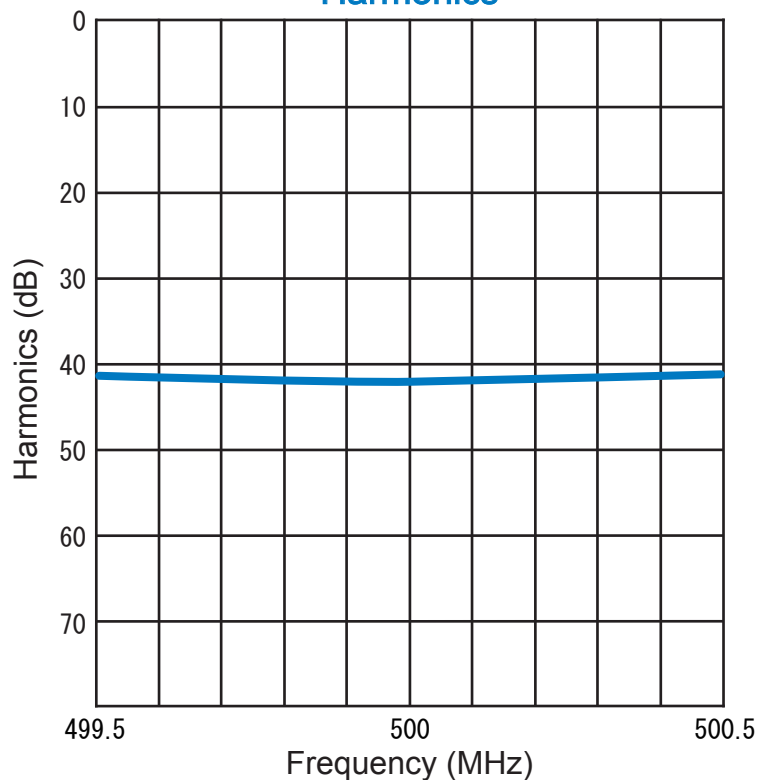
### Gain Flatness



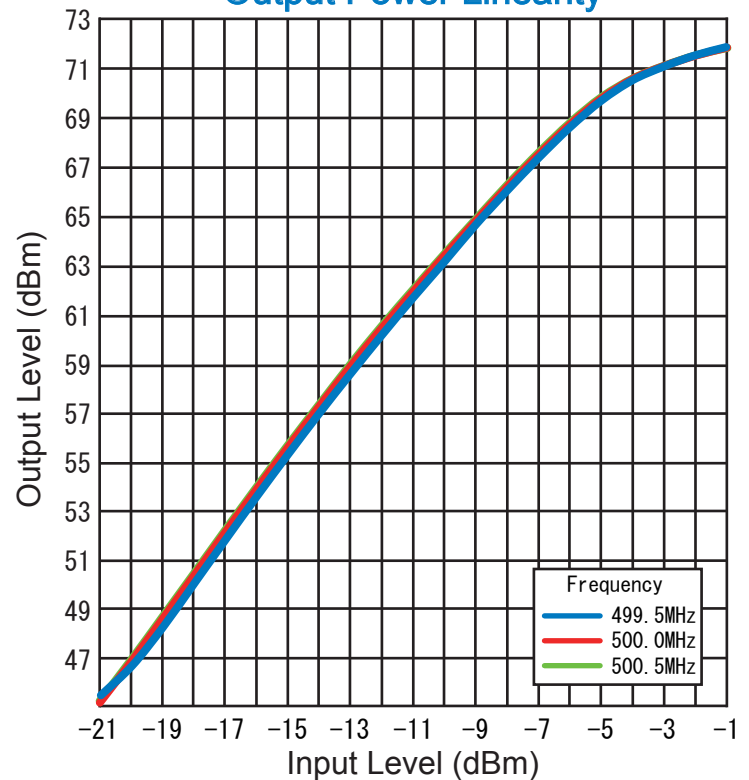
### Input / Output Return Loss



### Harmonics



### Output Power Linearity



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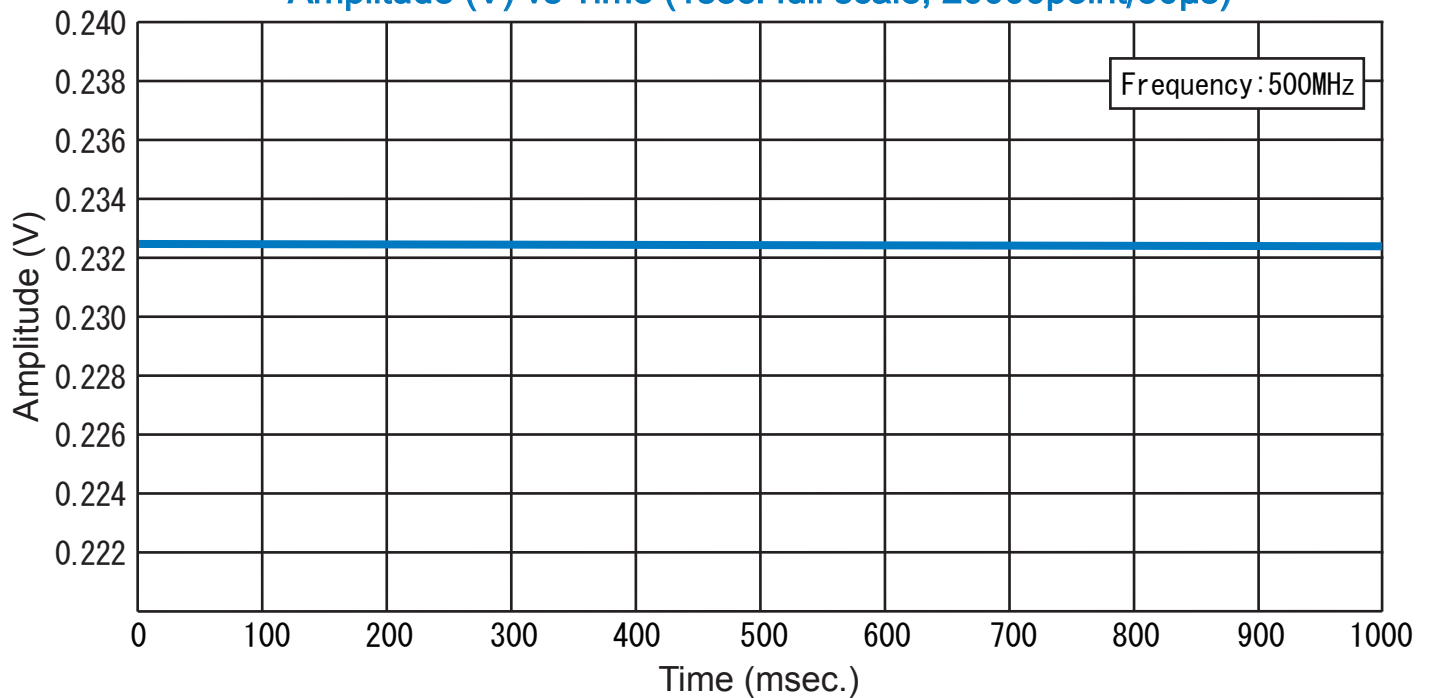
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## TYPICAL PERFORMANCE (Temp @+25°C)

R&K-CA500BW1-7272R

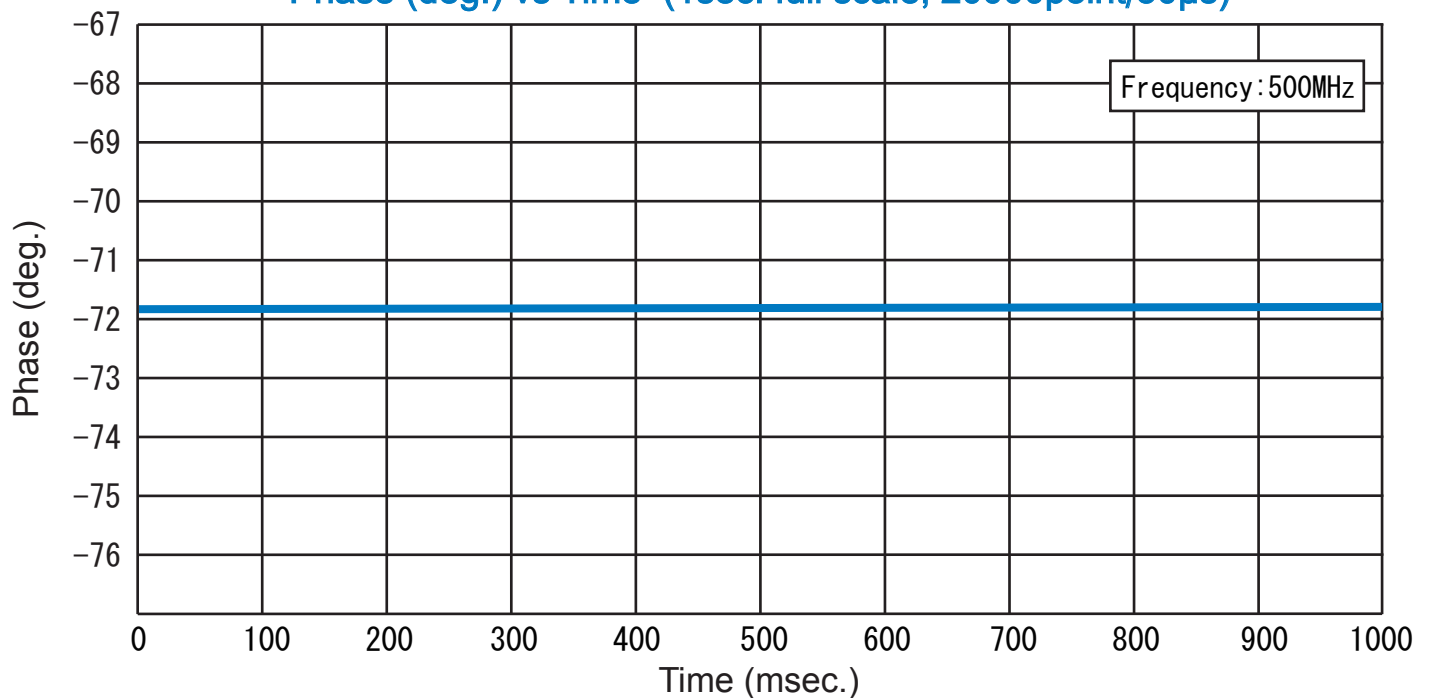
### RF Stability @1sec.

Amplitude (V) vs Time (1sec. full scale, 20000point/50μs)



Std(Amp.)/Mean(Amp.) in % = 0.0168 Should be < 0.1

Phase (deg.) vs Time (1sec. full scale, 20000point/50μs)



Std(Phase) in degree = 0.0216 Should be < 0.1

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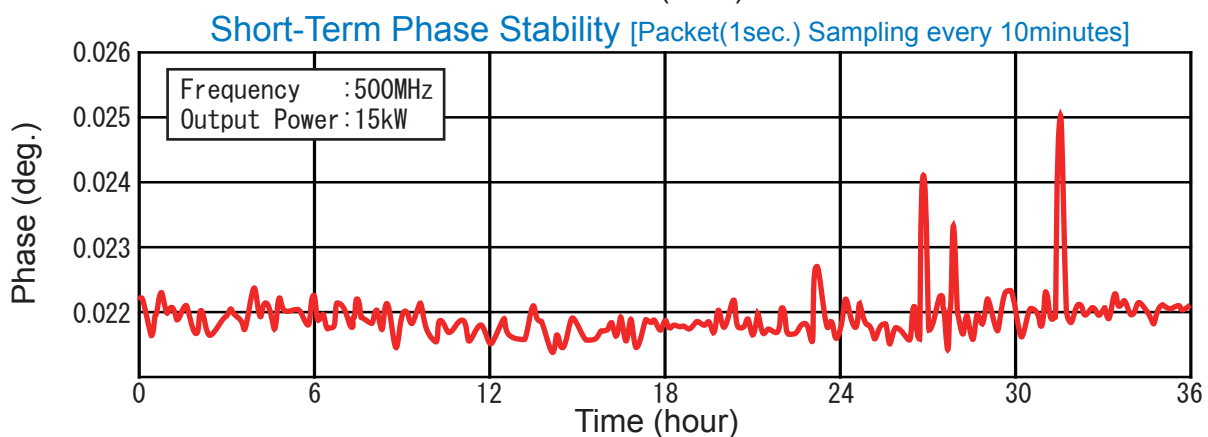
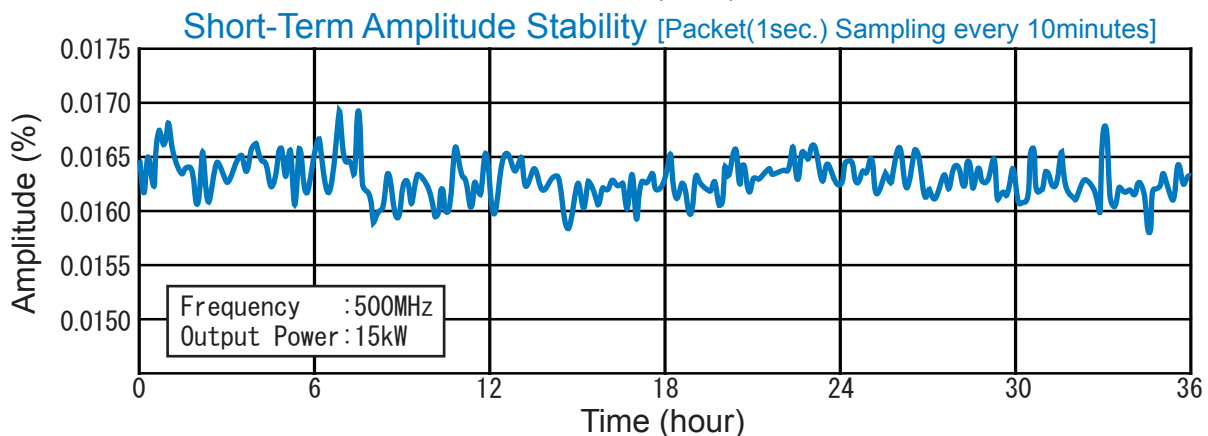
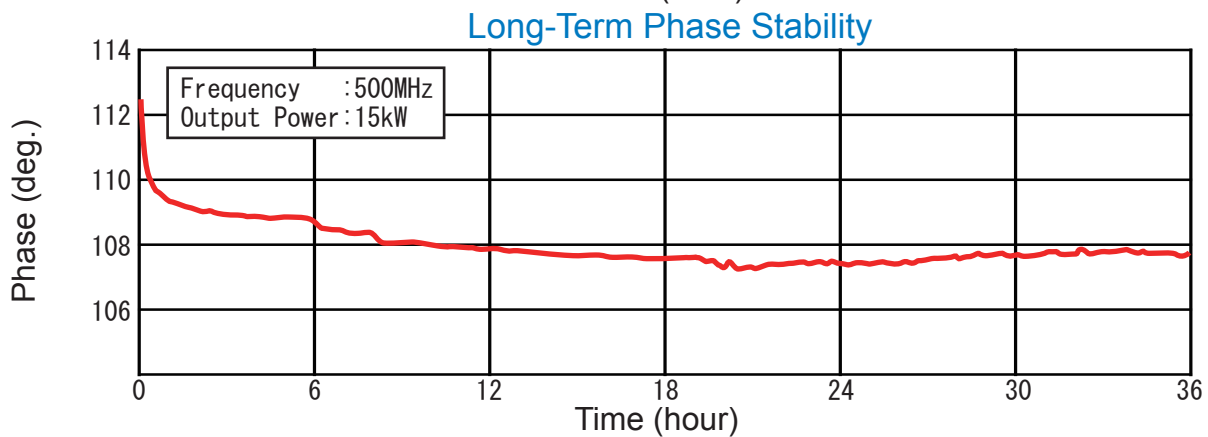
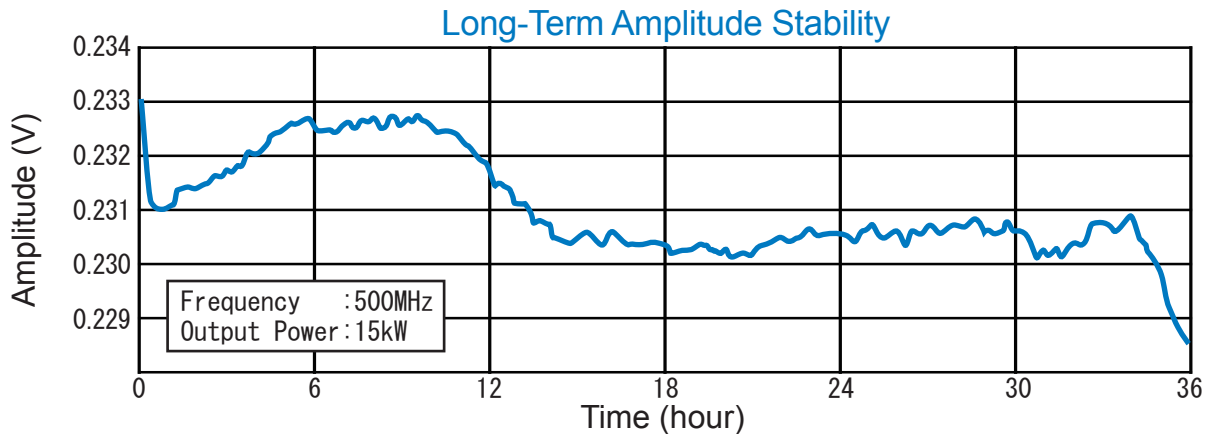
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