



## 13.56 and 60 MHz, 600 W, 1000 W and 1100 W RF Generator

# cito Plus

Comet Plasma Control Technologies has taken the cito RF Generator to the next level in performance and precision. The cito Plus is designed for highest stability into dynamic loads.

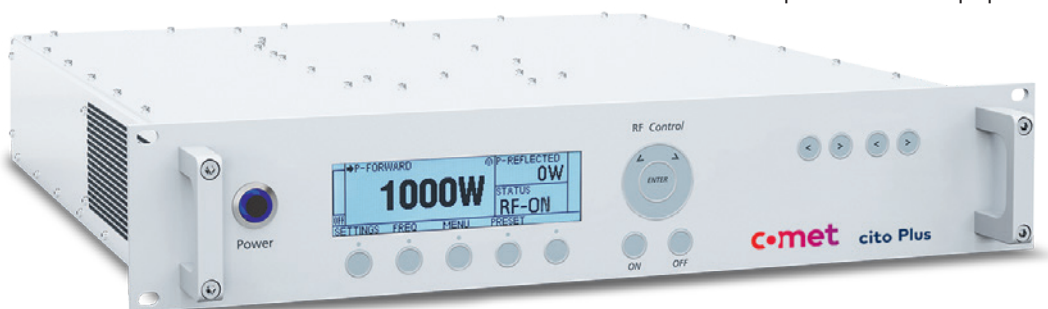
cito Plus offers superior pulsing quality, stability and power measurement accuracy, making it the best choice for plasma deposition and etch applications.

### Features

- Symmetrical open loop response
- High accuracy power control
- Pulsing up to 100 kHz
- CEX with variable phase shift
- CEX output frequency divider
- SEMI compliant

### Benefits

- Predictable plasma behavior
- Easy system integration
- Repeatable wafer results
- Stable with any cable length
- Superior pulse shape into any load
- Worldwide compatibility with most production equipment



**comet**  
pct

Led by experience. Driven by curiosity.

## cito Plus product range

Frequency	13.56 / 60 MHz
Frequency stability and accuracy	± 50 ppm
Output power	1 W to 600 W 1 W to 1000 W 13.56 MHz: 1 W to 1100 W
RF accuracy	± 1.0% of setpoint or ± 0.10% of max. power, whichever is greater
<b>Spurious and harmonics</b>	
Harmonics into 50 Ω	- 45 dBc
Spurious into 50 Ω	- 45 dBc
<b>RF pulsing</b>	
Pulse rate	1 Hz to 100 kHz
Pulse rise/fall time into any load	<300 ns / <400 ns
<b>Interfaces</b> Analog, RS232, Ethernet, Profibus, Matching network control	
CEX	Master / slave
<b>Power rating and coolant requirements</b>	
AC input	230 V AC nominal (± 10%), single phase
Maximum current	<10 A
AC to RF efficiency	>70%
Operating temperature	+ 5 °C to + 35 °C
Cooling	Forced air
<b>Configuration</b>	
Front panel	Active or passive
Form factor	2U, full 19" rackmount
Dimensions excl. connectors	441 x 500 x 88 mm (w x d x h)
Weight	<16 kg
RF output connector	N-type
2014/35/EU Low Voltage directive EN 61010-1	
2014/30/EU EMC directive EN 55011 EN 61000-6-2	
2011/65/EU RoHS SEMI S2, S8, S14, S22, F47	

cito is a registered trademark of Comet AG

### Switzerland (Head Office)

Comet AG  
Flamatt

### Germany

Comet Yxlon GmbH  
Aachen

### United States

Comet Technologies USA, Inc.  
San Jose/CA

### China

Comet Mechanical Equipment  
(Shanghai) Co. Ltd., Shanghai

### Korea

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### Malaysia

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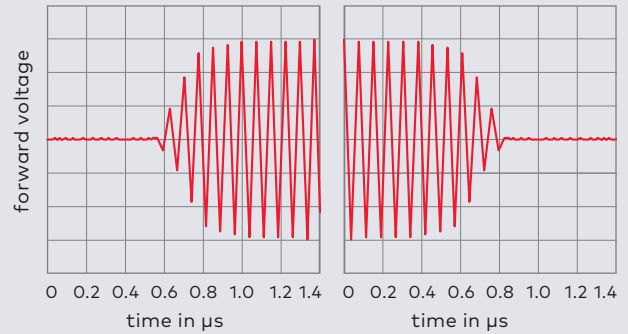
## Exceptional pulsing performance

### Pulse rise time

Ultra short rise times  
<300 ns into any load  
impedance without  
overshoots

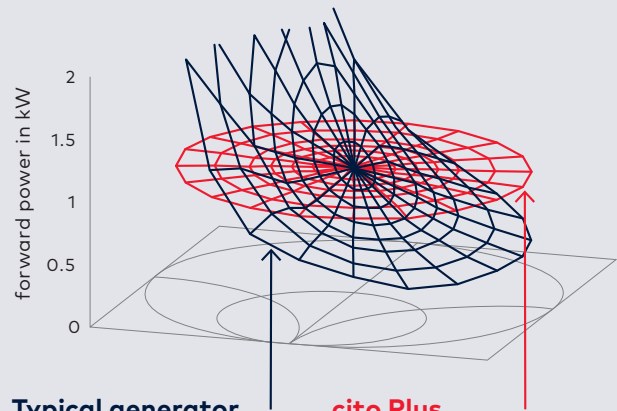
### Pulse fall time

Clean falling edge  
of the pulse even  
under most difficult  
conditions



## Enhanced plasma stability

### Symmetrical open loop response



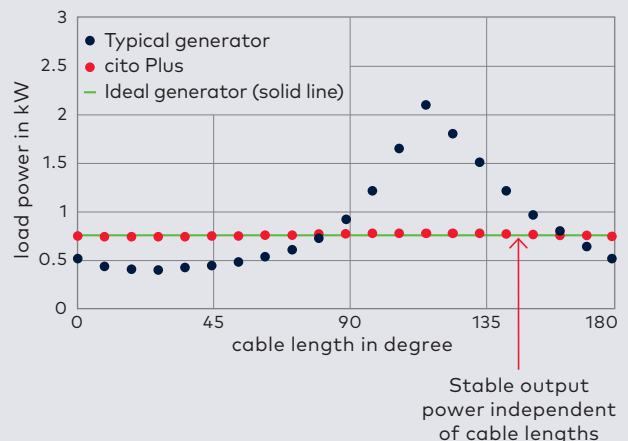
### Typical generator

RF forward power  
strongly depends on  
the plasma load  
impedance/condition

### cito Plus

RF forward power  
is independent  
from the plasma  
load impedance

### Load power into 3:1 VSWR



Stable output  
power independent  
of cable lengths