

cito Plus

13.56 and 60 MHz, 1000 W RF Generator

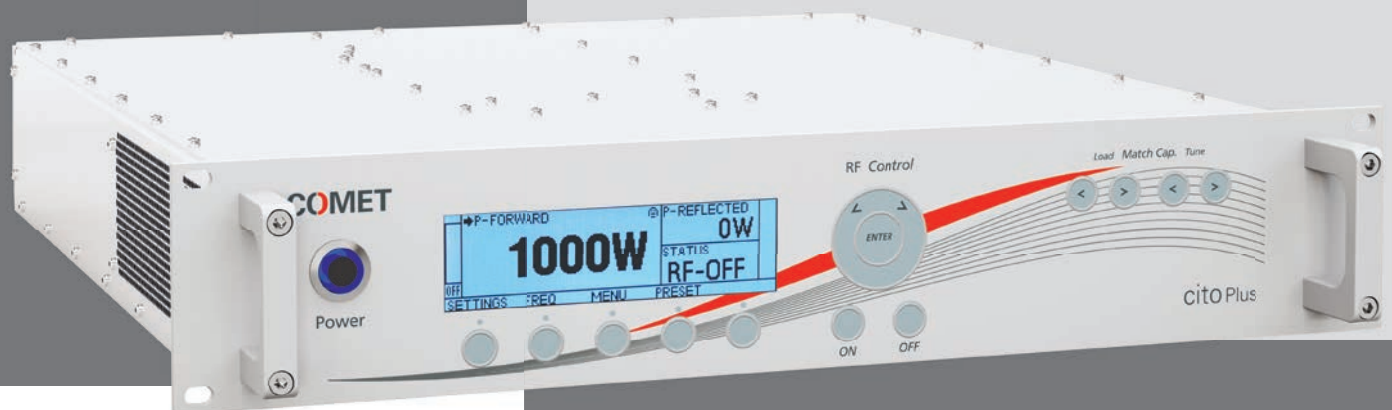
COMET Plasma Control Technologies

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 delay
- Selectable frequency offset
- Fully 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 any production equipment

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Technology with Passion



cito Plus 1310 and cito Plus 6010

Frequency	13.56/60 MHz
Frequency Stability and Accuracy	± 0.005 %
Output Power	1 W to 1000 W
RF Accuracy	± 1.0% of setpoint or ± 0.10% of max. power, whichever is greater
Spurious and Harmonics	
Harmonics into 50 Ω	- 45 dBc
Spurious into 50 Ω	- 45 dBc
Frequency Offset	+/- 5% of Fc, fixed
RF Pulsing	
Pulse Rate	1 Hz to 100 kHz
Pulse rise/fall time into any load	< 300 ns / < 800 ns
Interfaces	Analog, RS232, Ethernet, Match control
CEX	Master/slave
Power Rating and Coolant Requirements	
A/C input	187 VAC to 250 VAC, single phase
Rated Current	< 10 A
AC to RF efficiency	70 %
Operating Temperature	+ 5 °C to + 35 °C
Cooling	Forced air
Configuration	
Front Panel	Active or passive
Form Factor	2U, full 19" rackmount
Dimensions excl. Connectors	441 mm (width) x 500 mm (depth) x 88 mm (height)
Weight	< 15 kg
RF Output Connector	N-type
Compliance Directives and Industrial Standards	2014/35/EU Low Voltage EN 61010-1 2014/30/EU EMC EN 55011 EN 61000-6-2 2011/65/EC RoHS SEMI S2, S8, S14, S22, F47

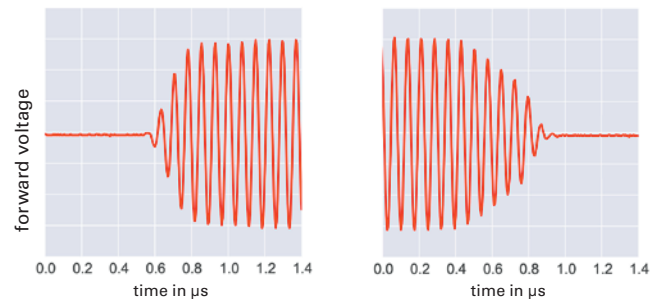
Exceptional Pulsing Performance

Pulse rise time

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

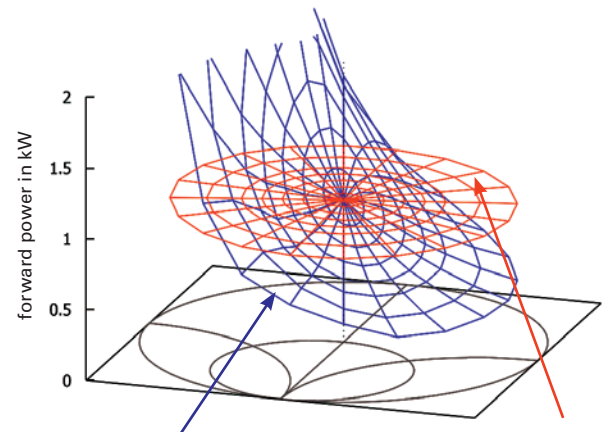
Pulse fall time

Clean falling edge of the pulse even under most difficult conditions



Enhanced Plasma Stability

Symmetrical Open Loop Response



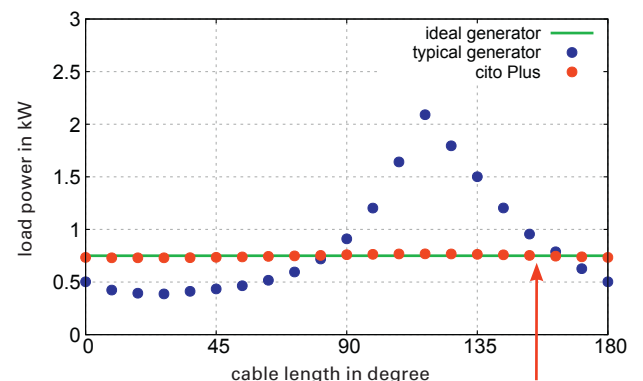
Typical Generator

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 VSWR 3



Stable output power independent of cable lengths

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COMET AG, Head Office
Flamatt, Switzerland

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San José/CA, USA

COMET Mechanical Equipment
Shanghai, PR China

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Suwon-si, Korea (South)

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