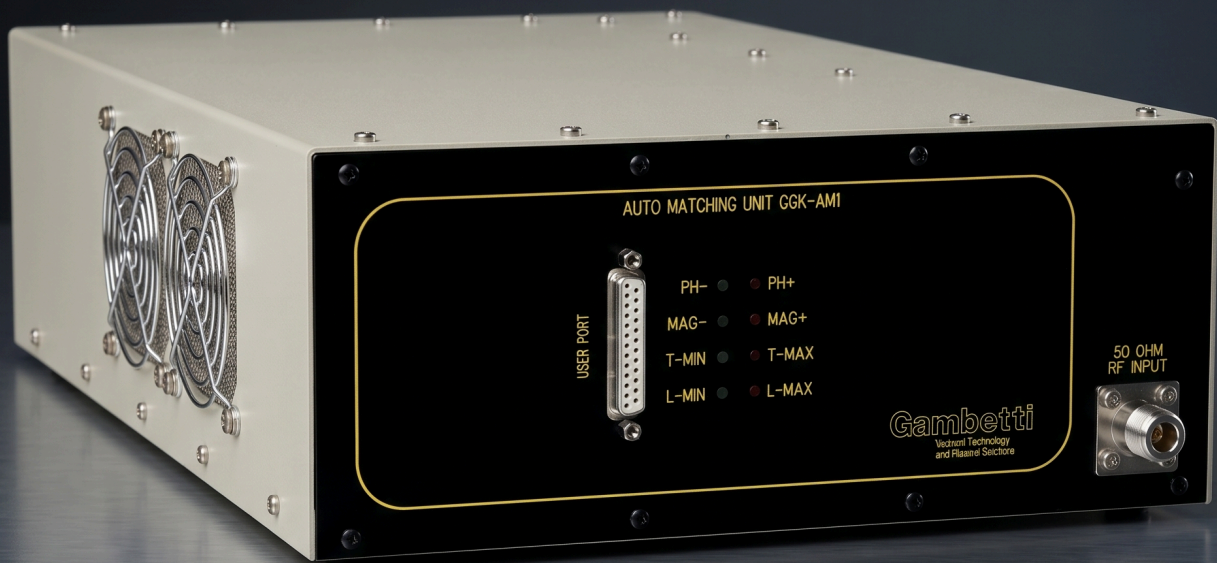


# GGK-AM1.

The automatic matching network that delivers every watt from the generator straight to the heart of the plasma, with no reflected power and no idle time.



**13.56 MHz**

RF Frequency

**1 kW**

Power handling

**<1 s**

Tuning time

**50  $\Omega$**

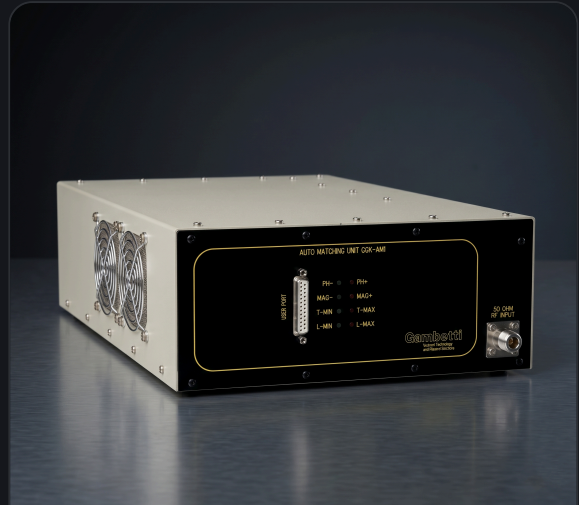
Output impedance

# The component that decides your plasma's efficiency

In any plasma system the matching network is the component that makes the difference. Its job is to transform the complex, variable impedance of the plasma load into the **50 ohm resistive** impedance required by the coaxial line and the RF generator, so that every watt delivered reaches the process without losses.

The **GGK-AM1** is Gambetti's automatic matching network for 13.56 MHz radio frequency: rugged, reliable and extremely fast, designed for those who cannot afford either reflected power or idle time between one process and the next.

Gambetti designs and manufactures a complete family of matching networks, both automatic and manual, and brings the know-how to deliver **tailor-made** solutions for every application.



Front panel with User Port, LED diagnostics and 50 Ω RF input.

#### Air variable capacitors

High-quality, double wiper contact, rated up to 15 A RF and 3000 V.

#### Match in under 2 s

Faster than vacuum models: a full match obtained in just moments.

#### Configurable coils

Silver-plated copper tube Ø6 mm, 4 taps and 3-4-5-6 turns selectable.

#### Rugged construction

High reliability and everything needed for easy installation and setup.

## — GAMBETTI EXCLUSIVES

### Two features you won't find elsewhere

#### Full preset, channel by channel

Each servo channel, magnitude and phase, works independently in auto, hold or preset mode. With the optimal preset, matching happens in less than one second: a flexibility unique to Gambetti matching networks.

#### Adjustable travel limits

Each tuning capacitor has its own user-adjustable minimum and maximum limit potentiometer. This protects the process and narrows the search window, another exclusive Gambetti feature.

*Faster. More reliable. Tailor-made.*

# Everything under control

- **Full preset** on every servo channel, in auto, hold or preset.
- **Lightning-fast tuning**, under 1 second with the optimal preset.
- **DC bias readout** directly on the user interface.
- **Optically isolated I/O** for maximum noise immunity.
- **Signals** digital at 24 V and analog at 10 V full scale.
- **Output connector** of 7/16 type for high power.
- **LED diagnostics** on the front panel, always legible.
- **Per-capacitor limits**, adjustable min and max potentiometers.

## FIELDS OF USE

## RIE

Reactive  
Ion  
Etching

## PVD

Physical  
Vapor  
Deposition

## PECVD

Plasma-  
Enhanced  
CVD

## R&D

Research &  
development

# Specifications

## RADIO FREQUENCY

Operating frequency	13.56 MHz
Power handling	up to 1 kW
Output impedance	50 $\Omega$

## TUNING ELEMENTS

Capacitors	Air variable
Contact	Double wiper
Max current	15 A RF
Max voltage	3000 V
Match time	< 2 s, < 1 s preset

## COIL

Standard	Silver-plated Cu $\varnothing$ 6 mm
Configurable taps	4
Available turns	3 / 4 / 5 / 6
Fixed capacitors	up to 3 pads

## CONTROL & I/O

Servo channels	2 independent
Modes	Auto / Hold / Preset
Readout	DC bias on interface
I/O	Optically isolated
Digital / Analog	24 V / 10 V f.s.

## CONNECTIONS

RF input	50 $\Omega$
RF output	7/16 type
Diagnostics	Front-panel LEDs

## COMPLIANCE

Certification	CE Marked
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