



Experts in RF & Microwave technology  
for Medical applications



COMPANY INTRODUCTION

Pioneers in GaN Solid-State Microwave

RFHIC is a leading pioneer in designing and manufacturing GaN-based Microwave components for low powered medical ablation and high powered proton beam therapy applications. With our state-of-the-art GaN technology – we continue to reimagine industries and make the impossible possible.

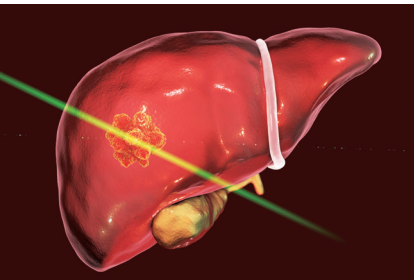


APPLICATIONS

Medical Applications

MW Thermotherapy

- Diathermia
- Hyperthermia
- Thermoablation



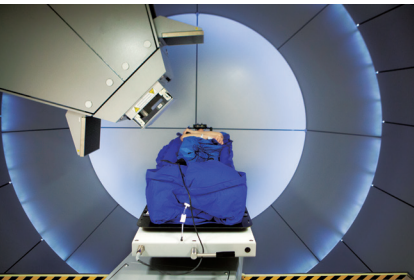
MW Diagnostic Systems

- MW Differential Tomography
- MW UWB Diagnostic Radar
- MW Radiometry



MW Oncology & Radiation

- Medical Linear Accelerator (LINAC)
- Proton Beam Radiotherapy



ADVANTAGES

Advantages of MW technology

|                  | Microwave Ablation   | RF Ablation           |
|------------------|----------------------|-----------------------|
| Heating Volume   | Fast & Larger Volume | Slow & Smaller Volume |
| Heat Sink Effect | No                   | Yes                   |
| Ground Pads      | No                   | Yes                   |

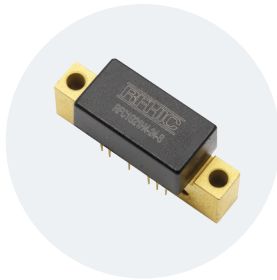
|                  | GaN Solid-State MW  | Magnetron        |
|------------------|---------------------|------------------|
| Average Lifetime | 50,000 ~ 100,000hrs | 2,000 ~ 4,000hrs |
| OPEX Costs       | Low                 | High             |
| Stability        | High                | Low              |
| Size             | Compact             | Large            |
| Control          | Digital             | Analog           |
| Power Levels     | > 1 MW              | < 75 kW          |

PRODUCT

20W | Medical Laser

RFHIC's wideband drive amplifier for various medical laser applications including ophthalmological laser system.

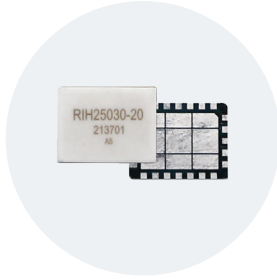
| Part No.       | Frequency     | Output Power | Efficiency | Dimensions     |
|----------------|---------------|--------------|------------|----------------|
| RFC1G21H4-24-S | 20 ~ 1,000MHz | 20W          | 65%        | 44 × 15 × 21mm |



30W | Hyperthermia

Discover how RFHIC's GaN Solid State Microwave Generators can be used for next-generation microwave diathermy applications. Providing a consistent distribution of microwave energy for a more precise and uniform penetration to the skin and tissue.

| Part No.     | Frequency    | Output Power | Efficiency | Dimensions       | Cooling |
|--------------|--------------|--------------|------------|------------------|---------|
| RIP25030-10G | 2.4 ~ 2.5GHz | 30W          | 52.5%      | 45 × 24 × 10.8mm | Air     |
| RIH25030-20  | 2.4 ~ 2.5GHz | 30W          | 70%        | 13 × 17 × 2.9mm  | Air     |



100W/200W | Microwave Ablation

RFHIC's GaN Solid State Microwave Generator technology can be used for thermal ablation techniques including tumor ablation and various dermatological treatments.

| Part No.     | Frequency    | Output Power | Efficiency | Dimensions       | Cooling |
|--------------|--------------|--------------|------------|------------------|---------|
| RIM25100-20G | 2.4 ~ 2.5GHz | 100W         | 60%        | 200 × 100 × 30mm | Air     |
| RIM25200-20G | 2.4 ~ 2.5GHz | 200W         | 60%        | 200 × 100 × 30mm | Air     |



2kW/30kW | Medical LINAC

RFHIC's GaN Solid State Microwave Generators designed ideally for medical linear accelerator (LINAC) applications.

| Part No.     | Frequency | Output Power | Efficiency | Dimensions          | Cooling |
|--------------|-----------|--------------|------------|---------------------|---------|
| RIM132K0-20  | 1.3GHz    | 2kW          | 65%        | 360 × 200 × 46mm    | Water   |
| RIK1330K-40T | 1.3GHz    | 30kW         | 62%        | 793 × 1017 × 1900mm | Water   |



30kW/60kW | Medical Waste Treatment

Sterilize and dispose of biohazardous waste with the use of microwave heating. RFHIC's GaN Solid State Microwave Generator can be used as the main heating source for your medical waste treatment applications.

| Part No.      | Frequency    | Output Power | Efficiency | Dimensions           | Cooling |
|---------------|--------------|--------------|------------|----------------------|---------|
| RIK0930K-40TG | 900 ~ 930MHz | 30kW         | 65%        | 793 × 1017 × 1900mm  | Water   |
| RIK0960K-40TG | 900 ~ 930MHz | 60kW         | 65%        | 1556 × 1006 × 2046mm | Water   |



# Global Locations



## Main Locations

### RFHIC HQ (World Headquarters)

41-14, Burim-ro 170beon-gil, Dongan-gu, Anyang-si,  
Gyeonggi-do 14055, Republic of Korea  
Tel. +82 31 8069 3000

### RFHIC US CORP. (North America)

920 Morrisville Pkwy Morrisville, NC 27560 United  
States  
Tel. +1 919 677 8780

## Sister Companies

### RFMTL (RF Materials)

215 Gangcho-ro, Danwon-gu, Ansan-si, Gyeonggi-do  
Republic of Korea  
Tel. +82 70 7096 5606  
Email. bydno1@rf-materials.com

### RFSYS (RF Systems)

446-28 Seotan-ro, Seotan-myeon, Pyeongtaek-si,  
Gyeonggi-do, Republic of Korea  
Tel. +82 31 611 6166  
Website. www.rf-systems.co.kr

## Global Sales Offices

### GERMANY

• RFHIC Germany  
Uhlandstr 4 74360 Ilsfeld

### JAPAN

• M-RF Co. LTD  
8-11, Izumi-cho 1-chome 101-0024, Chiyoda Tokyo

### CHINA

• Well Genius  
Unit 2107, 21/F, Westlands Centre, 20 Westlands  
Roads, Quarry Bay, Hong Kong  
• Xindi e-Technologies Corporation  
Block B, South District, Technology Park No.118  
Huaxiang Road, Langfang Development Zone  
Langfang, Hebei Province

### TAIWAN

• Sea Union Engineering Enterprises  
9F-1, No. 19-3, San-Chung Rd, Nan-Kang, Taipei  
115 Taiwan (Nankang Software Industrial Park)

### INDIA

• Spectra Innovations LLP  
No 558, 8th Main, 4th Block, Koramangala, Bengaluru  
-560034  
• APC Technologies  
DSM-722, 7th Floor DLF Towers, Shivaji Marg, Moti  
Nagar New Delhi-110015

### DENMARK

• Intelligent Systems  
Søndertoften 20 2630 Taastrup Denmark

### SPAIN

• RC Microelectronica S.A.  
C/ Francesc Moragas, 72, nave 3 08907  
L'Hospitalet de Llobregat

### ITALY

• LET Srl (Leading Edge Technologies)

### TURKEY

• M-Plus Technologies Ltd.  
Tantavi, Estergon Cd. Exen Kule B Blok No:24  
D:178, 34764 Ümraniye İstanbul, Turkey

### BRAZIL

• Macnica DHW Ltda  
Florianópolis/SC - Brazil Rua Patrício Farias 101, 8º  
andar Bairro Itacorubi - CEP 88034-132

### UNITED STATE

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• Advanced Technology Sales  
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