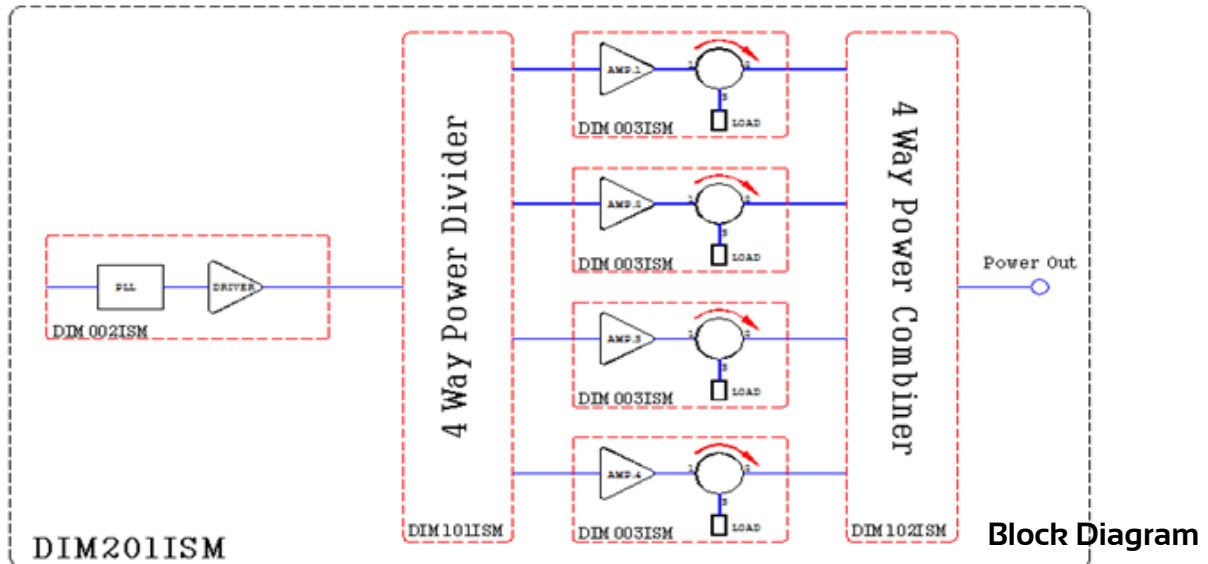


ITC 201ISM

2.45GHz 1000W High power RF Generator Component Kit



General Description

This kit includes all the parts that are used to build a 1000W microwave generator for ISM application, suitable for standalone amplifier as well as a power brick of high power solid state generator. The amplifier section is equipped with the latest and most reliable LDMOS device, to ensure high efficiency, high gain with relevant ruggedness. It is based on printed microstrip technology, to ensure low phase and gain spread unit to unit. RF signal generation is composed by a very stable PLL, operating frequency is selectable by serial interface. This generator can be used in PWM mode or frequency agility mode.

Typical Applications:

- Industrial Heating
- Plasma Generator
- Medical
- Microwave Furnaces
- Particle Accelerators
- RF Lighting
- Microbiological Testing
- Wideband data transmission system

Main Characteristics

| | |
|------------|---------------------------|
| Frequency | 2.4 to 2.5 GHz |
| Pout | 1000W (adj 50-1000W) |
| Efficiency | 50% |
| Load VSWR | Full mismatch tolerant |
| Operating | B class |
| Supply | 30dc V nominal |
| Control | Frequency, Level and Mute |
| Measure | FWD and REF |

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Technical Specifications (typical)

| | |
|---------------------|---------------------------------|
| Frequency Range | 2425 ÷ 2475MHz |
| Frequency step | 0.1MHz |
| Output Power | 1000W |
| Power Regulation | 50-1000W |
| Supply Voltage | +30Vdc |
| Efficiency | ≥ 50% |
| Current | 70 Amps |
| Output Matching | 18dB |
| Load Mismatch | ∞ full phase |
| Phase Noise | -50dBc/Hz -80 dBc/Hz on request |
| Frequency Stability | 10ppM |

Mechanical

| | |
|--------------------|---|
| Dimensions (LxWxH) | To be installed inside the customer parts |
| RF Out connection | 7/16" |
| DC feed connection | Solder Tab |
| Carrier | To be mounted on customer heat-sink |
| Weight | 6Kg |

Environmental

| | |
|-----------------------|----------------------------------|
| Operating temperature | 0-70 °C (heatsink temperature) |
| Storage temperature | -20 + 80°C (ambient temperature) |
| Humidity | up to 90% no condensing |

Screws Type

To be designed under customer requirement.

Thermal Compound

Recommended Dow Corning 340 (thermal compound)

or equivalent

Ordering Code

ITC201ISM

Mechanical Layout

To be designed under customer requirements.