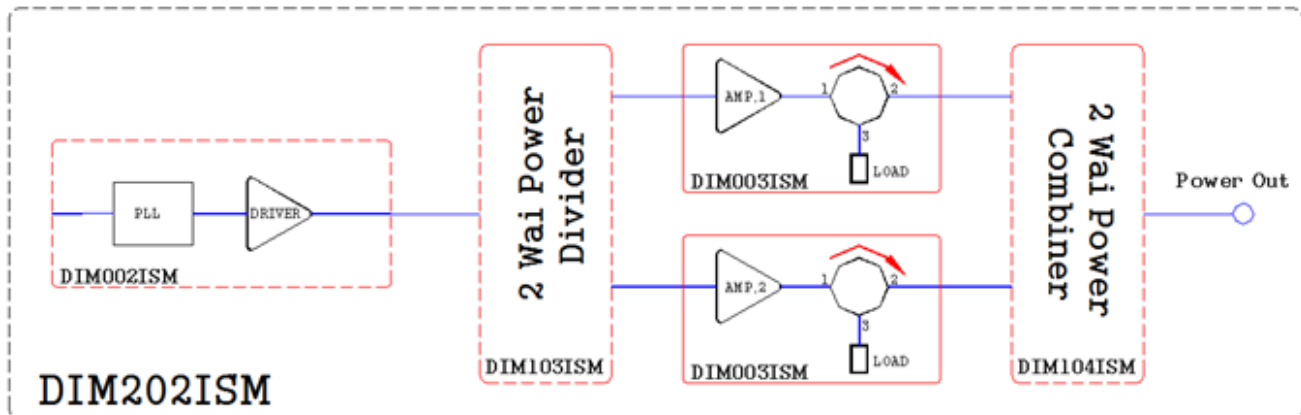


ITC 202ISM

2.45GHz 500W High power RF Generator Component Kit



Block Diagram

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	500W (adj 50-500W)
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	500W
Power Regulation	50-500W
Supply Voltage	+30Vdc
Efficiency	≥ 50%
Current	35 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	4Kg

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

ITC202ISM

Mechanical Layout

To be designed under customer requirements.