



Description

The IMPO2425-50H is a 50W, LDMOS oscillator module, designed for Industrial, Scientific, Medical(ISM) , RF Cooking and Plasma Lighting application at 2450MHz. This high efficiency rugged oscillator is targeted to replace Industrial magnetrons and other vacuum tubes currently powering industrial heating, drying, plasma lighting and medical systems, in tiny 50*27mm.

Isolator integrated for mismatch protection, device used: ITCH25050A2

Product Features

- Operate Frequency: 2450MHz
- Typical 45W CW Peak Power@26V
- Typical 50W CW Peak Power@30V
- Excellent Ruggedness with isolator protection
- Excellent Thermal Stability

Applications

- Industrial Heating and Drying
- Scientific
- Medical
- Plasma Lighting
- RF Cooking

Typical performance

CW performance

Freq(MHz)	Vcc (V)	Pout(W)	EFF(%)
2450	26	43	54
	30	56	52

Electrical Specifications						
PARAMETER	Condition	UNIT	MIN	TYP	MAX	SYMBOL
Operating Frequency		MHz	-	2450	-	fo
CW Output Power	Vcc = 26V	W	40	45	55	Pout
	Vcc = 30V	W	50	55	60	Pout
Efficiency@Psat	Vcc = 26V	%	50	54	-	Eff
	Vcc = 30V	%	48	52	-	Eff

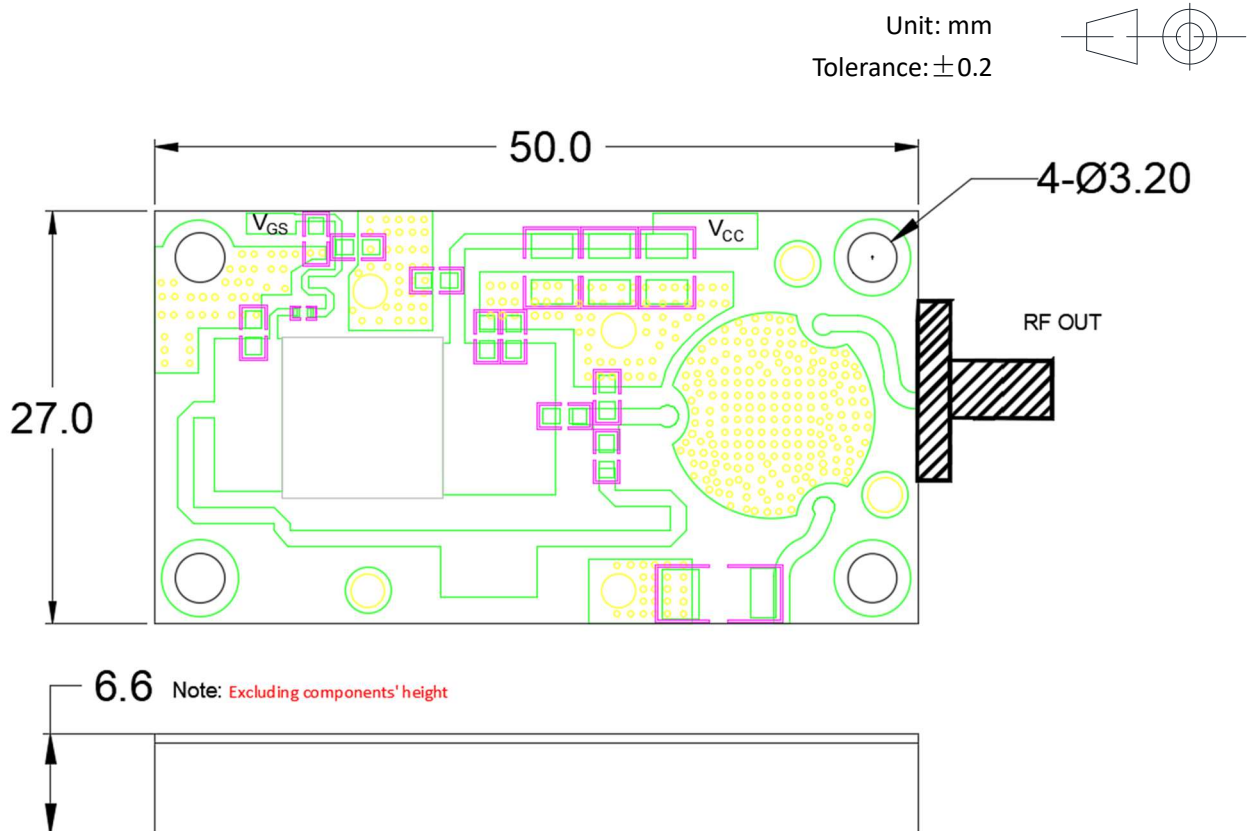
Environmental Characteristics

PARAMETER	UNIT	MIN	TYP	MAX	SYMBOL
Operating Case Temperature	°C	0	-	60	Ta
Storage Temperature	°C	-40		65	Tstg
Relative humidity w/o condensation	%	-	-	85	RH

Mechanical Specifications

PARAMETER	UNIT	VALUE
Dimensions(L × W × H)	mm	50×27×6.6 (Excluding components height)
Weight	g	TBD
RF Output Connector	-	SMA(Female)
Power Supply Connector	-	TBD

Outline Drawing





Revision History

Document revision history

Date	Revision	Datasheet Status
2022/02/18	Rev 1.0	Preliminary Datasheet
2022/4/21	Rev 1.1	Add lower limits for eff etc
2022/4/21	Rev 1.2	Add test data for 30v supply etc
2023/3/3	Rev 1.3	Modify the upper and lower limits for 30V/26V

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