



CORRY MICRONICS, INC **PRODUCT SPECIFICATION**

**CMIPA-L23P45**

**2300 - 2400 MHz LTE-TDD SOLID STATE HIGH POWER AMPLIFIER**

**Functions**

<b>Description</b>
TDD Operation
TX/RX Enable
TX Muted by Software Protocol
Logic Lock of PA/LNA Enable
Operating Temperature Monitor and Alarm
Output Power Monitor and Alarm
Reverse Power Monitor and Alarm
DC Current Monitor and Alarm
Protected Against Over Reverse Power

**Electrical Specifications**

<b>Parameters</b>	<b>Specifications</b>	<b>Note</b>
Operating Frequency	2300 – 2400 MHz	
Signal Type	LTE, PAR 9.8 dB	
TX Nominal Output Power	45 W	TX Slot
TX ACLR	≤-45 dBc	TBD
TX EVM (Max)	<8% @ Specified Output Power	
TX Nominal Gain	51±1.5 dB	Room temperature
	51±2 dB	Low and high temperature
Attenuator Set Range	31 dB	
Attenuator Set Step	0.25 dB	
Initial value of attenuator	8.5 dB	
TX Input return loss	18 dB	
DC Power	+28 V	
Efficiency	≥26% @45 W	
TX Output load mismatch tolerance	Isolator protected	

**CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.**

**Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407**

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Parameters	Specifications	Note
Max operating base temperature	90°C	If temp higher than 90°C, the PA will be shut down
Power consumption when muted	<5 W	
TX Forward power monitor	Range: 30 dB, 50 dBm ~ 21 dBm Resolution: 0.1 dBm Accuracy: ±2 dB	
TX Reverse power monitor	Range: 30 dB, 50 dBm ~ 21 dBm Resolution: 0.1 dBm Accuracy: ±2 dB	
DC Current monitor	Range: 0-15 A Resolution: 0.1 A Accuracy: ±5%	
Temperature monitor	Range: -40°C~+105°C Resolution: 1°C Accuracy: ±3°C	
RX Noise Figure	<3 dB (Room Temperature) <3.5 dB (High/Low Temperature)	
RX Gain	25+/-2dB	
RX Input Return Loss	12dB	
Switch Time	<2us 50% control to 10%/90% RF Level	
RF Connectors	SMA Female	
Power Connectors	Socket with Thread, Connect with Ring Terminal and M3 Screw	
Control Connector	2.5 mm pitch 5 pin Connector	
Dimensions	See Attached Drawing	Dimensions are in inches [mm]

**Environmental Specifications**

- ✧ Environment Temp.: 0°C ~ +50°C
- ✧ Humidity: 5%RH~96%RH
- ✧ Atmospheric Pressure: 70kPa~106kPa

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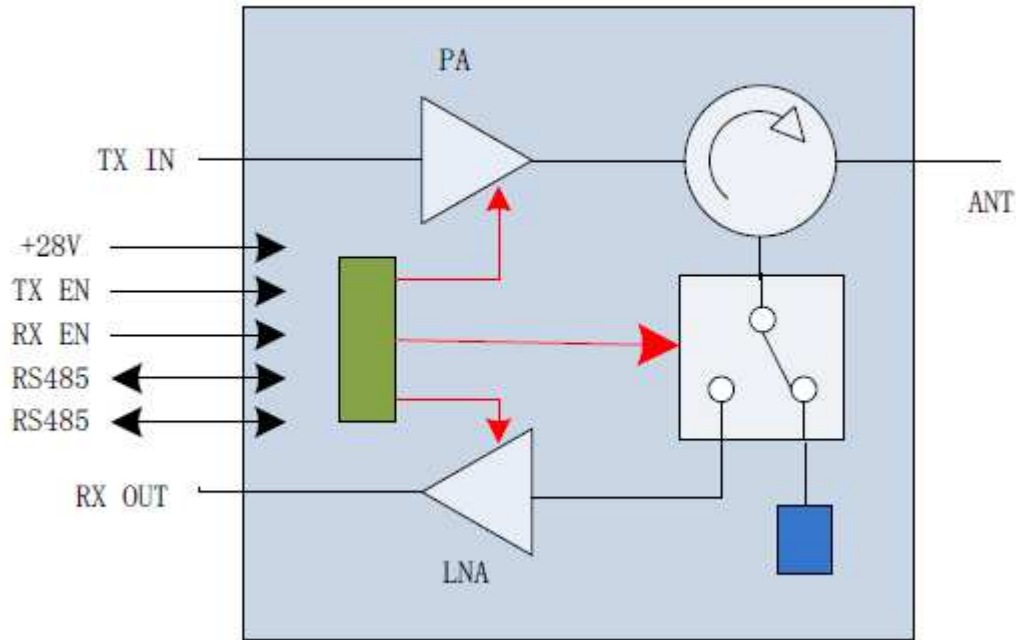
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## Block Diagram



## Control Socket Pinout

Pin Number	Definition	Note
1	RS485_A	
2	RS485_B	
3	GND	
4	TX EN	TTL, 3.3V or 5V
5	RX EN	TTL, 3.3V or 5V

## Truth Table (When not muted by software)

Work State	TX EN	RX EN	
Receive	Low	High	TX Off, RX On
Transmit	High	Low	TX On, RX Off
Mute	Low	Low	TX Off, RX Off
Invalid Logic	High	High	TX Off, RX Off
	No Connect	No Connect	TX Off, RX Off

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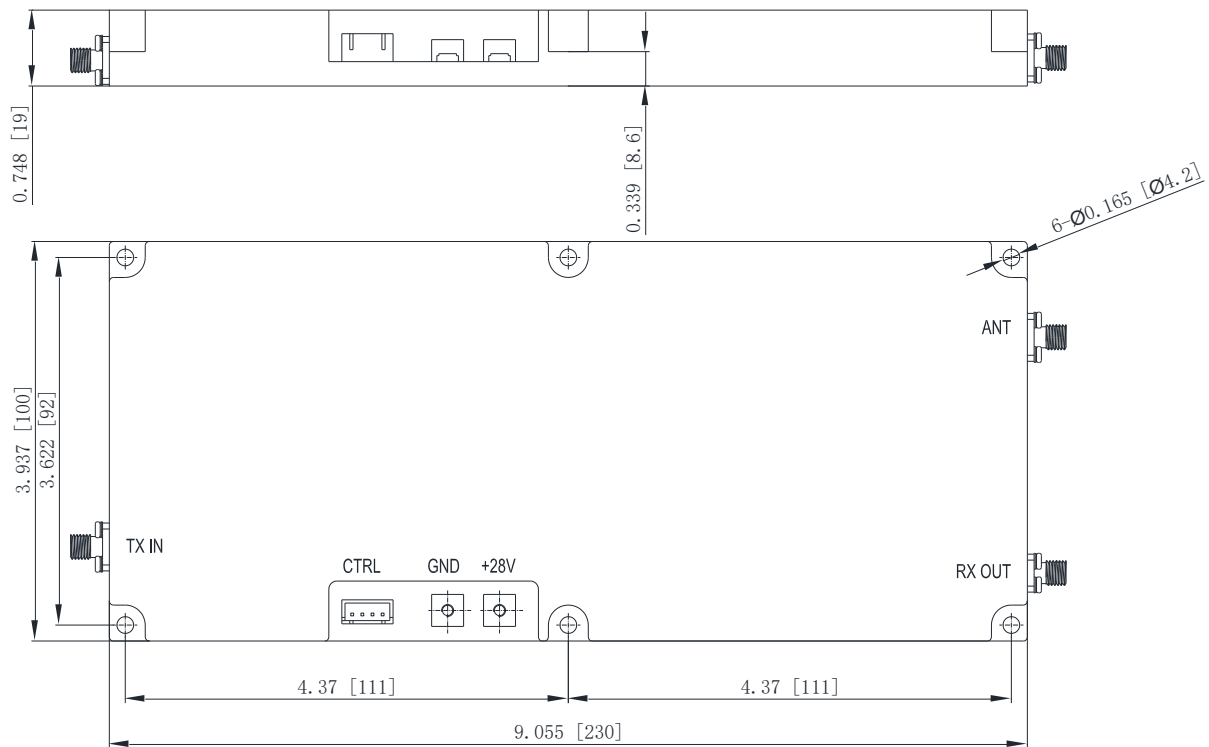
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# CORRY MICRONICS, INC PRODUCT SPECIFICATION

## Outline Drawing



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