Narrowband RF Power Amplifier

CRF-PA-400M440M-150W

Frequency Range
400 – 440 MHz

Rated Output Power
150 W

Connector
Input: SMA-F
Output: N-F

Package Size
200 × 158 × 25 mm

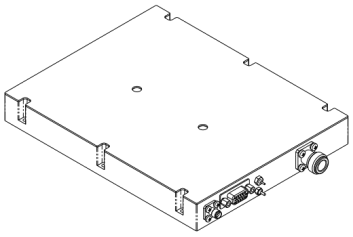
Electrical Characteristics

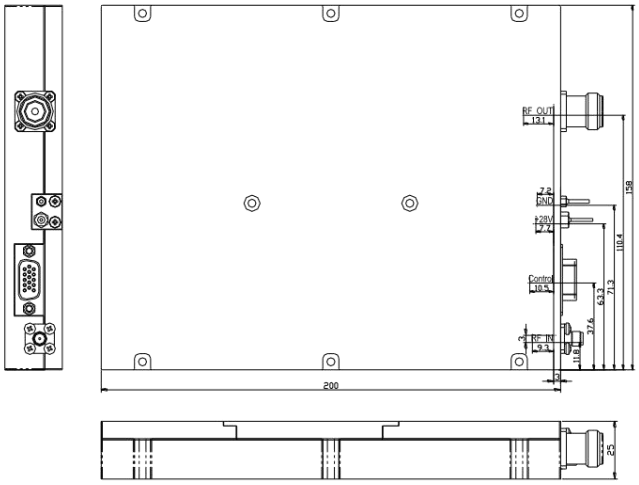
Test conditions: 50Ω system, unless otherwise specified.

Parameter	Min	Typ	Max	Units	Model
Frequency Range		400 – 440 MHz			
Gain	48	50	52	dB	CRF-PA-400M440M-150W-M
Gain Adjustment Range		20		dB	CRF-PA-400M440M-150W-M
Gain Adjustment Step Size		0.5		dB	CRF-PA-400M440M-150W-M
Noise Figure			20	dB	CRF-PA-400M440M-150W-M
Input VSWR			1.5		CRF-PA-400M440M-150W-M
Spurious		-60		dBc	CRF-PA-400M440M-150W-M
Harmonics (2nd, 3rd)	-10			dBc	CRF-PA-400M440M-150W-M
Frequency Stepping	10			Hz	CRF-PA-400M440M-150W-V
Frequency Adjustment Range	380		480	MHz	CRF-PA-400M440M-150W-V
Bandwidth Adjustment Range	20		80	MHz	CRF-PA-400M440M-150W-V
Output Power (Psat)	120	150		W	
Supply Voltage	24	28	32	V	
Operating Current		22	27	A	
PA Enable/Disable Time			100	μs	
Dimensions		200 × 158 × 25 mm			
Weight			1.4	kg	
Operating Temperature	-40		+60	℃	
Storage Temperature	-55		+85	℃	
RF Connectors In/Out		Input: SMA-KFD46 Output: N-F			Input:（M Version Only） Output: (V/M Version)

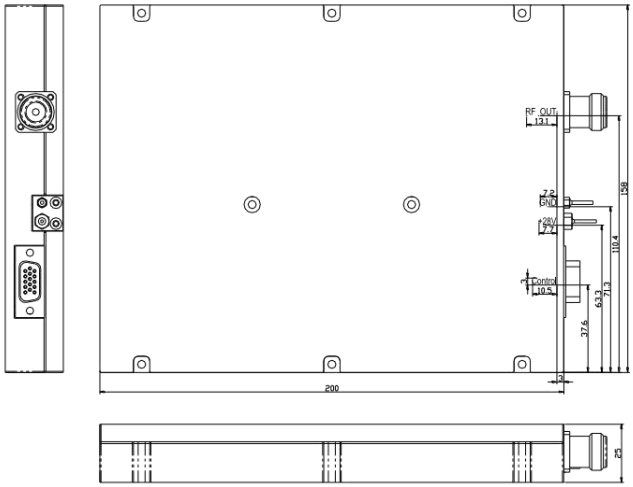
Mechanical Outline

Complete outline drawing shown below for clear integration reference.





CRF-PA-400M440M-150W-M Outline Drawing



CRF-PA-400M440M-150W-V Outline Drawing

Model CRF-PA-400M440M-150W	**Package Size** 200 × 158 × 25 mm	**Weight** ≤ 1.4 kg
Connector Reference RF IN: SMA-KFD46（M Version Only） RF OUT:N-F (V/M Version) Control: D-Sub 15-Pin Female	**Power / Cooling** Supply: 24–32 V (28 V nominal) Cooling: External Heat Sink	**Release Note** Mechanical drawing is kept visible for easier dimensional review and connector location confirmation.

Applications RF testing / communication interference / system integration	**Customization** Custom frequency bands, connectors, control interfaces and integration details are available. CorelixRF engineering team can provide feasibility reviews within 48 hours.

DC / Control Interface

PIN#	Description	Specification
Grounding Post	GND	Ground Return
Pull-core Capacitance	VDD	Supply Voltage:+24V~32V,+28V Nominal
1	RS485 (-) [note1] [note2]	Serial Communication Bus
2	Voltage Alarm [note1]	Alarm(5V), shutdown when voltage exceeds 32V
3	Current Alarm [note1]	Alarm(5V), shutdown when current exceeds 29A
5	Attenuator setting [note1]	0.5-3.0 VDC input, minimum to maximum attenuation
6	Alarm Reset	External pulse signal resets locked alarm state
7	Pr	Reversed RF Power Indicator (0-3V)
8	RS485 (+) [note1] [note2]	Serial Communication Bus
10	Pf	Forward RF Power Indicator (0-3V)
11	PA_EN	PA on: 0V or Floating PA off: Input 3.3V or 5V
12	TA [note1]	Alarm(5V), active on over-temperature shutdown
13	VA [note1]	Alarm(5V), active when output port is open or short
14	Tc [note1]	Analog voltage relative to temperature @ 10mV/°C
4,9,15	NC	No Connection

[note1]: This function is optional, please specify when ordering.

[note2]: This function is optional, please specify when ordering.

The RS485 master-slave communication function can be used to monitor the operational parameters of the power amplifie module, such as voltage, current, output power, and standing wave, and it can also be used to set the control parameters of the power amplifier in real time, such as power amplifier on/off, gain adjustment, power adjustment, and alarm reset.

Compliance / Quality Framework

RoHS Compliant	CE / FCC	ISO 9001	GJB 9001C

Test data and pattern files can be supplied for project review where applicable.