Narrowband RF Power Amplifier

CRF-PA-5150M5350M-100W

Frequency Range	Connector
5150 – 5350 MHz	SMA-KFD46
Rated Output Power	**Package Size**
100 W	160 × 120 × 25 mm

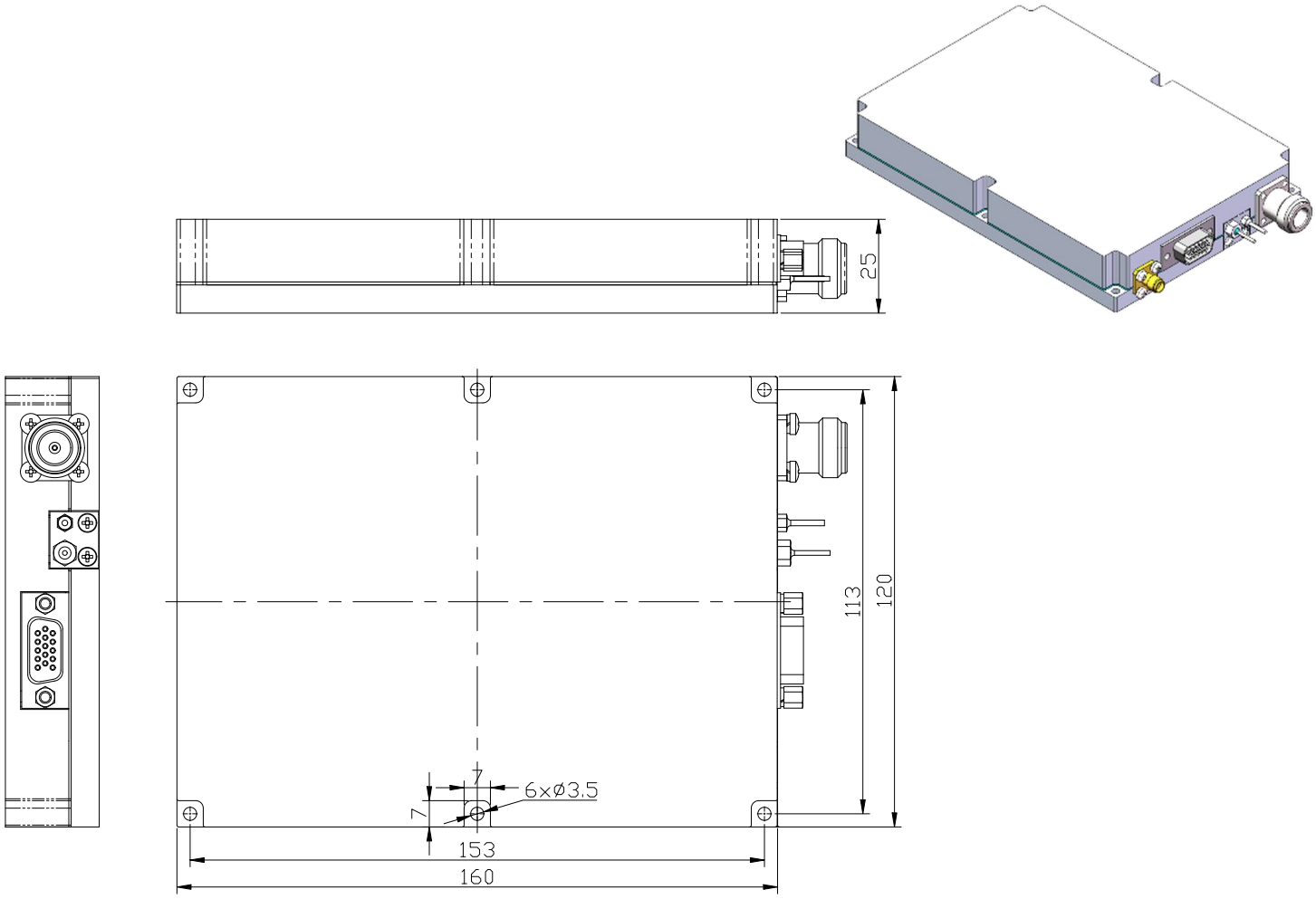
Electrical Characteristics

Test conditions: 50Ω system, unless otherwise specified.

Parameter	Min	Typ	Max	Units
Frequency Range		5150 – 5350 MHz		
Gain	46	48	50	dB
Gain Adjustment Range		20		dB
Gain Adjustment Step Size		0.5		dB
Noise Figure			20	dB
Input VSWR			1.5	
Spurious		-60		dBc
Harmonics (2nd, 3rd)		-10		dBc
Frequency Stepping		10		Hz
Frequency Adjustment Range	5060		5450	MHz
Bandwidth Adjustment Range	80		450	MHz
Output Power (Psat)	80	100		W
Supply Voltage	24	28	32	V
Operating Current		16	20	A
PA Enable/Disable Time			100	µs
Dimensions		160 × 120 × 25 mm		
Weight			1.4	kg
Operating Temperature	-40		+60	°C
Storage Temperature	-55		+85	°C
RF Connectors In/Out		Input: SMA-KFD46 Output: SMA-KFD46		

Mechanical Outline

Complete outline drawing shown below for clear integration reference.



Model	Package Size	Weight
CRF-PA-5150M5350M-100W	160 × 120 × 25 mm	≤ 1.4 kg
Connector Reference RF IN: SMA-KFD46（M Version Only） RF OUT: SMA-KFD46（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 22A
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	Alarm(5V), active on over-temperature shutdown
13	VA	Alarm(5V), active when output port is open or short
14	Tc	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 amplifier 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.