

870-880 MHz CDMA 30 W Power Amplifier

General Description

The NA00292 is a 30 W CDMA power amplifier. It is a single biased (+27 V) power amplifier that operates between 870 MHz and 880 MHz. The amplifier incorporates internal forward power detection, VSWR alarm, Over-power alarm and over temperature protection circuit. It also includes Temperature Compensated Gain Control function.

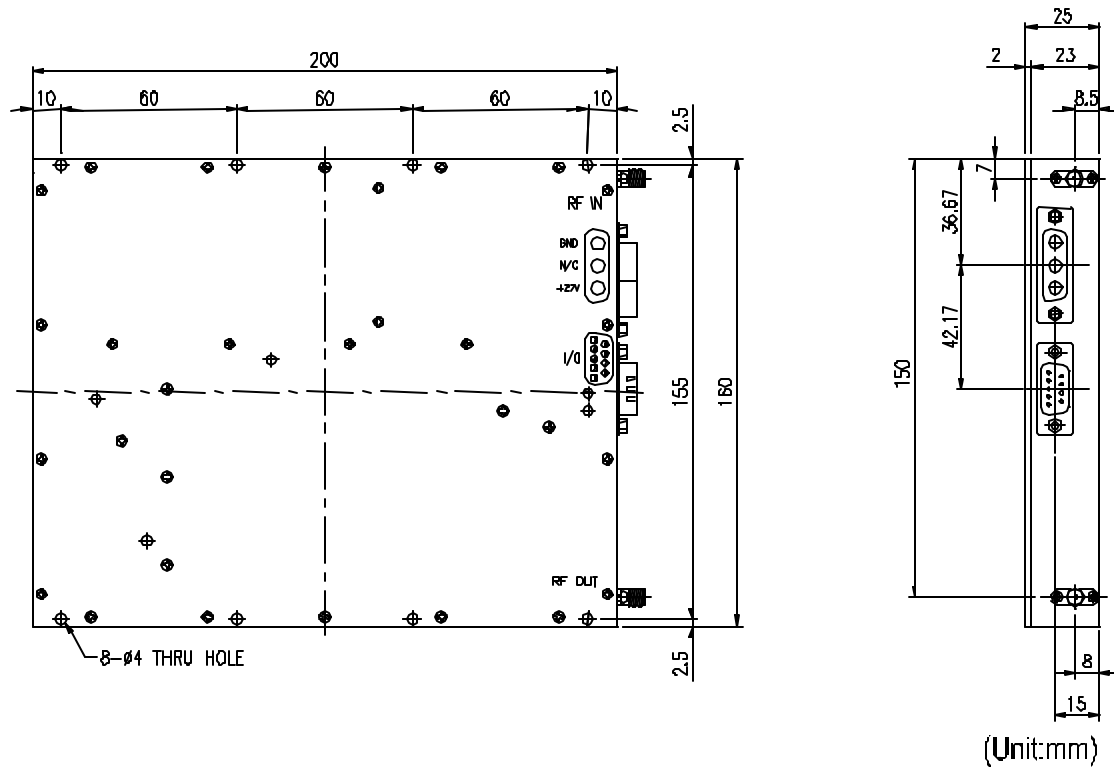
Performance -40 to 55 °C, Vcc = +27 V

Parameter		Min.	Typ.	Max.	Units
Frequency		880		880	MHz
CDMA Average Output Power			30		W
Gain		53	54	55	dB
Gain Flatness				± 1.0	dB
Gain Variation Over Temperature	-40°C to 25°C			± 1.5	dB
	25°C to 55°C			± 1.0	dB
Output 3 rd Order Intercept Point at 41 dBm output/tone		70			dBm
Spurious Emission	± 750.0 kHz ¹			-29	dBc
	± 1.98 MHz ¹			-49	dBc
Noise Figure				10	dB
Input VSWR				1.4 : 1	
Output VSWR				1.3 : 1	
DC supply voltage (Vcc)			+27		V
Current				10	A
Operating Temperature (Ambient)		-40		55	°C

¹Resolution bandwidth of equipment is 30 kHz.

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Outline Drawing



Customized Designs: For custom designs, including both electrical and mechanical, please contact us at sales@nextec-rf.com.

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870-880 MHz CDMA 30 W Power Amplifier*Connector Description*

Name	Description
RFIN	(I) RF input signal (SMA-F)
RFOUT	(O) RF output signal (SMA-F)
DC Input	D-Sub Solder Type 3W3P
	1: (I) + 27 V DC
	2: Ground
	3: Ground
Control Interface	D-Sub 9 Pin
	1: (O,H) VSWR Alarm Active when reverse power at output port is over 37 ± 1 dBm CDMA average power.
	2: (O,H) Over Temperature Alarm at over 85 ± 5 °C on base plate. The amplifier will automatically shut down if alarm is active.
	3: Not Connected
	4: (I, H) Turn off the Amplifier
	5: (O) Forward Power Detection Output. Detected Power Range: 25 dBm (1.7 V out) to 45 dBm (3.0 V out) of CDMA Signal Average Power
	6: Ground
	7: (O,H) Over Power Alarm @ 48 ± 1 dBm CDMA Average Power Output.
	8: (O,H) Alarm Active whenever one of the alarms is activated.
	9: Not Connected.

(I: Input, O: Output, H: High Active, L: Low Active)

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