

## 2110-2170 MHz 1 W CDMA Power Amplifier

### *General Description*

The NA00270 is a 1W CDMA power amplifier. It is a single biased (+12 V) power amplifier that operates between 2110 MHz and 2170 MHz. The amplifier incorporates internal forward power detection.

### *Performance at -20 to 60 °C, Vcc = +12 V*

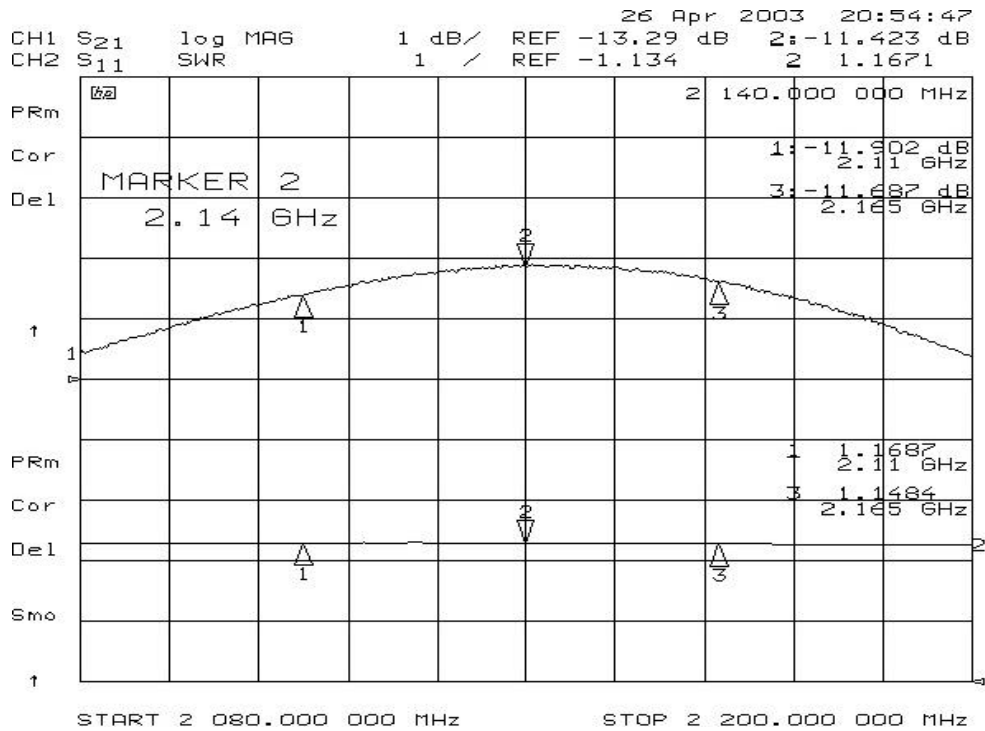
Parameter		Min.	Typ.	Max.	Units
Frequency		2110		2170	MHz
CDMA Average Output Power			1		W
1 dB Compression Point			35		dBm
Gain		29	30	31	dB
Gain Flatness				± 0.5	dB
Gain Variation Over Temperature				± 1.0	dB
3 <sup>rd</sup> Order Intercept Point at 27 dBm/tone output power			51		dBm
Noise Figure				10	dB
Spurious Emission at 1 W CDMA average power output	± 2.5 MHz <sup>1</sup>			-31	dBc
	± 3.5 MHz <sup>1</sup>			-35	dBc
	± 5.0 MHz <sup>1</sup>			-45	dBc
	± 10.0 MHz <sup>1</sup>			-50	dBc
Input VSWR				1.4 : 1	
Output VSWR				1.5 : 1	
DC supply voltage (Vcc)			+12		V
Current				3.0	A
Operating Temperature (Ambient)		-20		60	°C

<sup>1</sup>Resolution bandwidth of equipment is 30 kHz. Input signal is 3GPP TS25.141 v.3.4.1 Test Model 1, Chip Rate: 3.84 Mcps, 64 DPCHs/Carrier, 1 carrier

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*Typical Test Results*

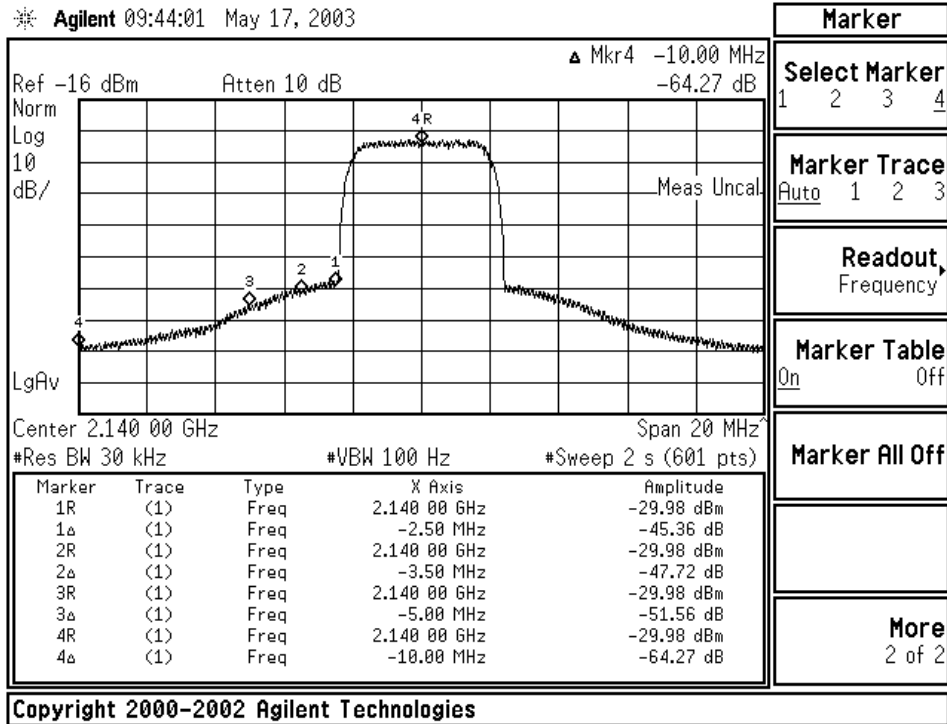
*Gain and Return Loss (Output Attenuator 41.7 dB)*





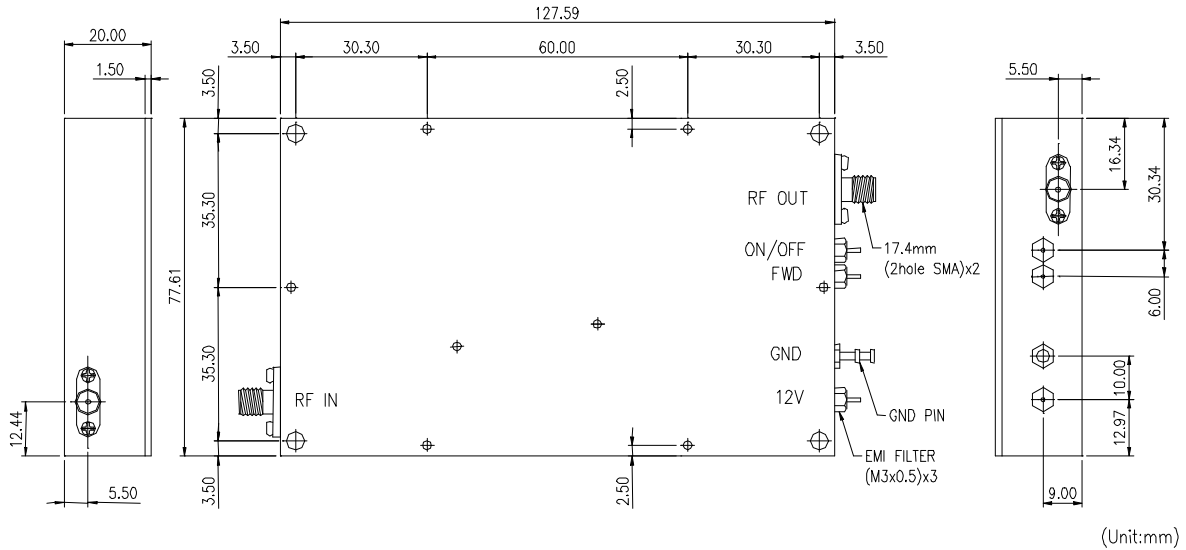
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*Spurious Emission<sup>1</sup>*



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*Outline Drawing*



*Connector Description*

Name	Description
RFIN	(I) RF input signal (SMA-F)
RFOUT	(O) RF output signal (SMA-F)
12V	(I) DC Input +12 V
GND	Ground
On/Off	(I,H) Turn off the Amplifier
FWD	(O) Forward Power Detection Output. Range: 11 dBm (1.8V out) to 30 dBm (4.0 V out)

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