

Product Features

- Solid-state linear design
- Small and light weight
- Suitable for US-PCS
- 50 Ohm Input/Output impedance
- High reliability and ruggedness
- Built in Output Isolator
- Built in monitoring circuit
- High efficiency

Application

- US-PCS Repeater



Description

This HPA Module is a high gain, wide dynamic range amplifier module. It has superior performance comes with a modest price tag. Custom design available.

Electrical Specifications @ VDD=+27DC, T=25°C, 50Ω System

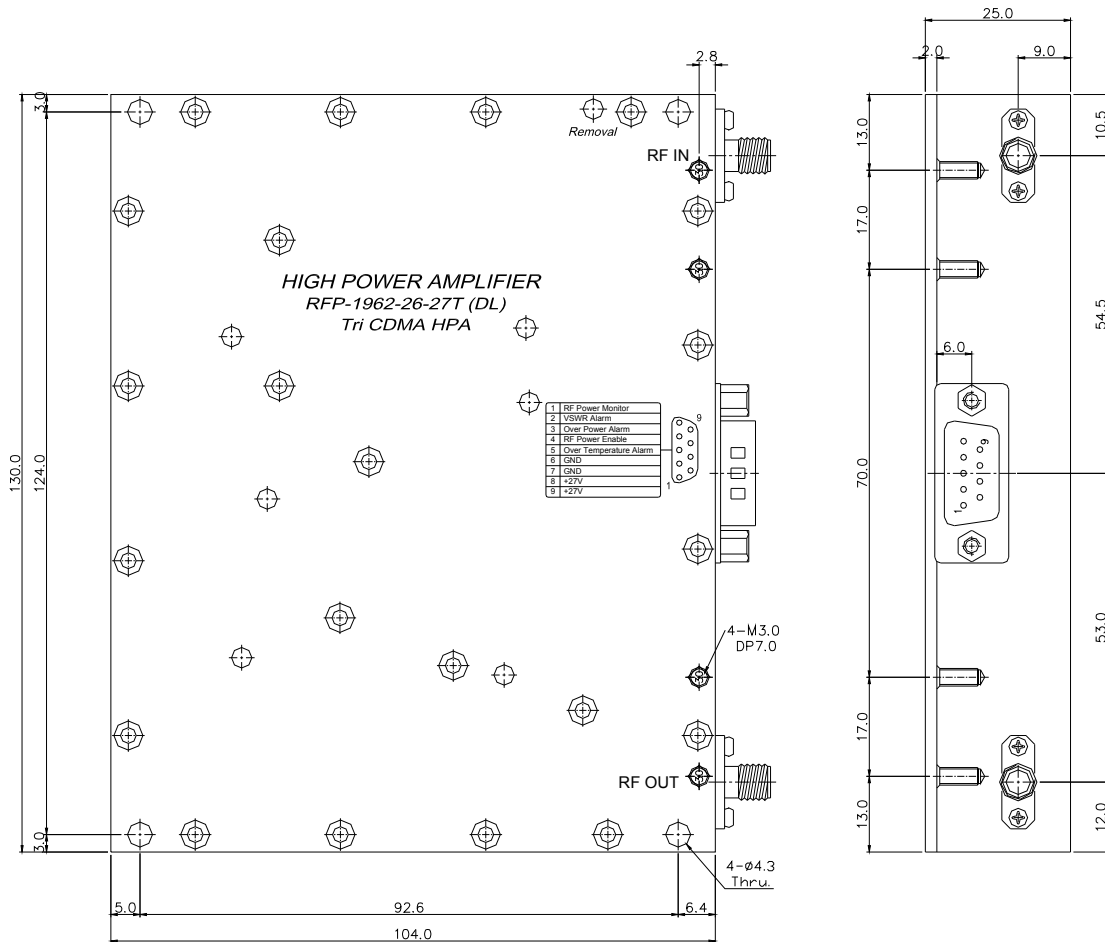
PARAMETER	Symbol	Specification	
Frequency Range	BW	1930 ~ 1995MHz	
Operating Bandwidth	OBW	65MHz	
Output Power	P	32dBm @ CDMA 7FA	
Gain	G	37dB ±1dB (min)	
Gain Flatness	ΔG	1.0dB (peak to peak)	
Gain Variation	ΔG _{TEMP}	±1.0dB (max)	
Spurious Emission @ CDMA 7FA 32dBm	SE	Fc±885KHz @ 30KHz RBW	-45dBc
		Fc±1.98MHz @ 30KHz RBW	-48dBc
Input/Output VSWR	S11/S22	1.5 :1 (max) to 50Ω	
Output Power Detector	DET	4.2V±0.1V @ CDMA 7FA 32dBm (100mV/1dB) Detect range : 2dBm ~ 32dBm	
Over Power Alarm	OPA	35dBm±0.5dBm, TTL High Alarm	
VSWR Alarm	VSWR	S22 > 3 :1, TTL High Alarm	
Over Temperature Alarm	OTA	Temp > 90°C, TTL High Alarm 85°C±5°C, Alarm Clear	
DC Input Voltage	VDC	+27V DC	
DC Input Current	IDD	Typ. 1.0A, MAX 1.3A (@ Vdc= +27V, @ CDMA 7FA 32dBm)	
Operating Temperature	To	-20 ~ +60°C	
Storage Temperature	Ts	-40 ~ +85°C	
Dimension		104 x 130 x 25(mm)	
RF Connector		SMA Female	

Interface Connectors

D-Sub, 9-Pin-Control

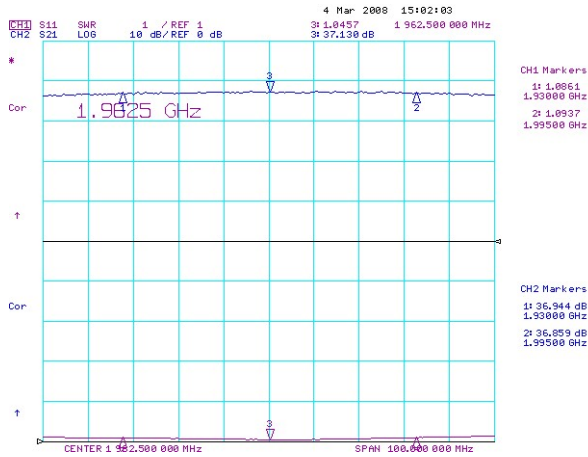
Pin #	DESCRIPTION	Specifications
1	RF Power Monitor	4.2V±0.1V @ CDMA 7FA 32dBm, (100mV / 1dB), Detect range : 2dBm ~ 32dBm
2	VSWR Alarm	1.3 :1 (max) to 50Ω
3	Over Power Alarm	TTL High @ 35dBm±0.5dBm
4	RF Power Enable	Enable : TTL Low or GND / Disable : TTL High or Open
5	Over Temperature Alarm	+90℃
6	+VCC	GND
7	+VCC	GND
8	GND	+27V
9	GND	+27V

OUTLINE DRAWING

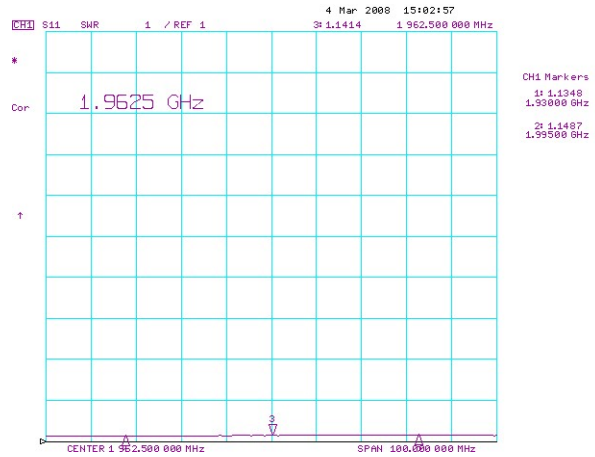


TYPICAL PERFORMANCE

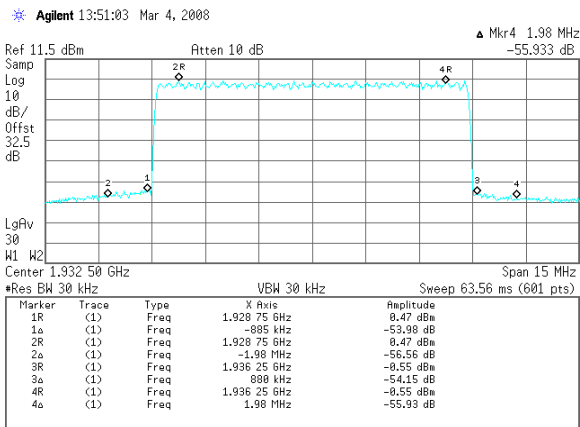
Gain & S11



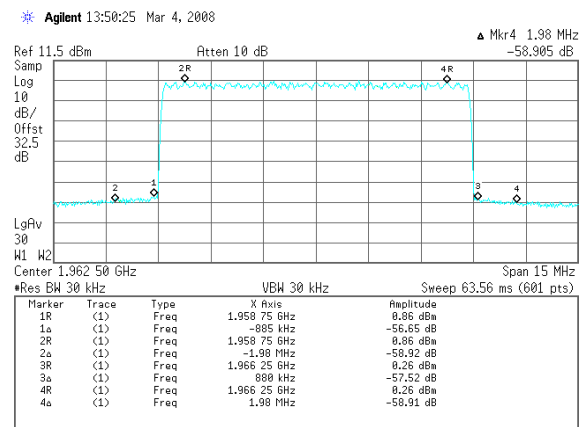
S22



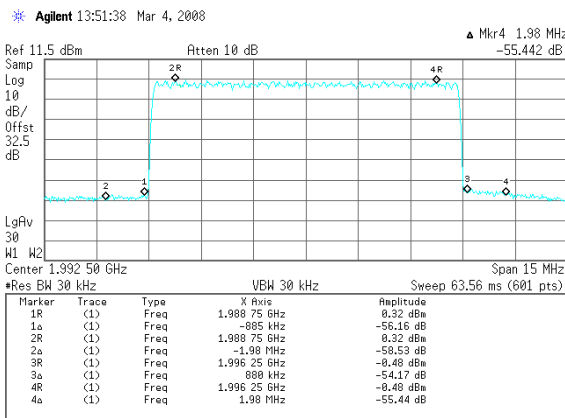
Spurious Emission @ Fc 1932.5MHz, CDMA 7FA, 32dBm



Spurious Emission @ Fc 1962.5MHz, CDMA 7FA, 32dBm



Spurious Emission @ Fc 1992.5MHz, CDMA 7FA, 32dBm



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