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 TEL: (310)306-5556 • FAX: (310)821-7413  
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**MODEL 4081**  
**700 - 800 MHz**  
**100 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State  
 Broadband High  
 Power RF Amplifier**

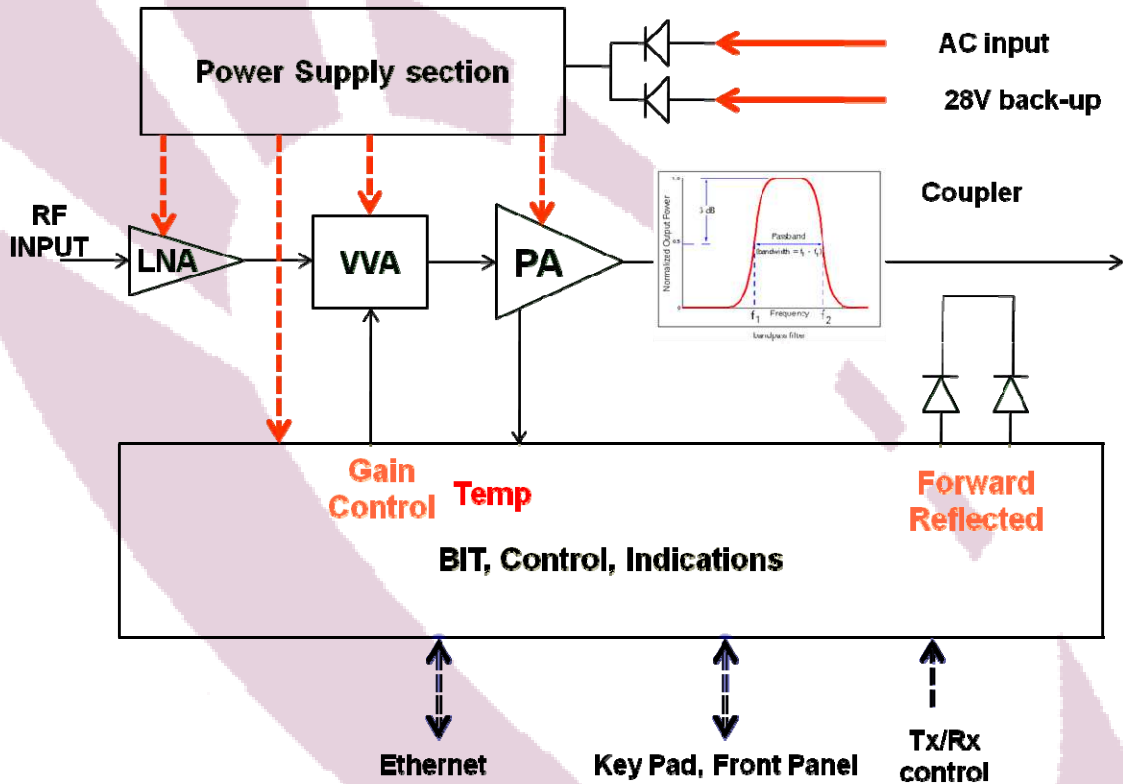
The 4081 is a 100 Watt broadband amplifier that covers the 500 – 1000 MHz frequency range. The bandwidth is limited by the BPF to 700 to 800MHz. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent 3<sup>rd</sup> order intercept point, high gain, and a wide dynamic range.

Due to robust engineering and employment of the most advanced devices and components, this amplifier achieves high efficiency operation with proven reliability.

	<u>Parameter</u>	<u>Specification @ 25° C</u>
<b><u>Electrical</u></b>		
1	Frequency Range	700 – 800 MHz
2	Output Power @1dB back off	100 Watts min
3	Small Signal Gain	+53 dB min
4	Small Signal Gain Flatness	+/-1.0 dB max with no ALC +/- 0.5dB with ALC
5	BPF rejection	20dB min. at 655 & 850 MHz Ultimate attenuation: 60dB min. VSWR: 1.5:1 in the pass band
6	Input /Output VSWR	2:1 max
7	Harmonics	-60 dBc max
8	Spurious Signals	-60 dBc max
9	Input/Output Impedance	50 Ohms nominal
10	AC/DC Input Power consumption	600 Watts max
11	AC Input	100 – 240 VAC, single phase
12	Back-up DC input	28V nominal
13	RF Input for 100W out	0 dBm nominal
14	RF Input Signal Format	Burst & Continuous
15	Class of Operation	A/AB
16	Noise Figure	8dB max
17	Interface	RS232, Ethernet, Front panel
<b><u>Mechanical</u></b>		
17	Dimensions	19" x 5.25" x 20"
18	Weight	60 lb. max
19	Front Connectors	Type-N for RF
20	Rear Connectors	AC plug: Standard Terminal lug: 28V back-up RS232 - 9pin D-sub Ethernet - standard
21	Grounding	Chassis, and terminal lug
22	Cooling	Internal Forced Air
<b><u>Environmental</u></b>		
23	Operating Temperature	-20° C to +55° C
24	Operating Humidity	95% Non-condensing
25	Operating Altitude	Up to 10,000' Above Sea Level
26	Shock and Vibration	Normal Truck Transport

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## CIRCUIT PROTECTIONS, INDICATIONS, CONTROL

### ETHERNET and/or FRONT PANEL

#### CIRCUIT PROTECTIONS

- ◇ Thermal Overload
- ◇ Over Current
- ◇ Over Voltage
- ◇ VSWR protection
- ◇ RF Output power level
- ◇ High RF In @ +10dBm

#### CIRCUIT INDICATIONS

- ◇ Forward Power
- ◇ Reflected power
- ◇ VSWR Fault
- ◇ Temp Fault
- ◇ Gain Setting (VVA) %

#### CIRCUIT CONTROL

- ◇ Standby (amplifier disable) - default state after power up
- ◇ Gain/power setting with 25dB range
- ◇ VSWR protection Reset
- ◇ ALC On/ Off
- ◇ Discrete Tx command - Ground is Tx (pull up internally to "High")

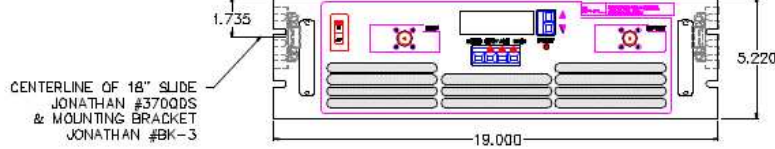
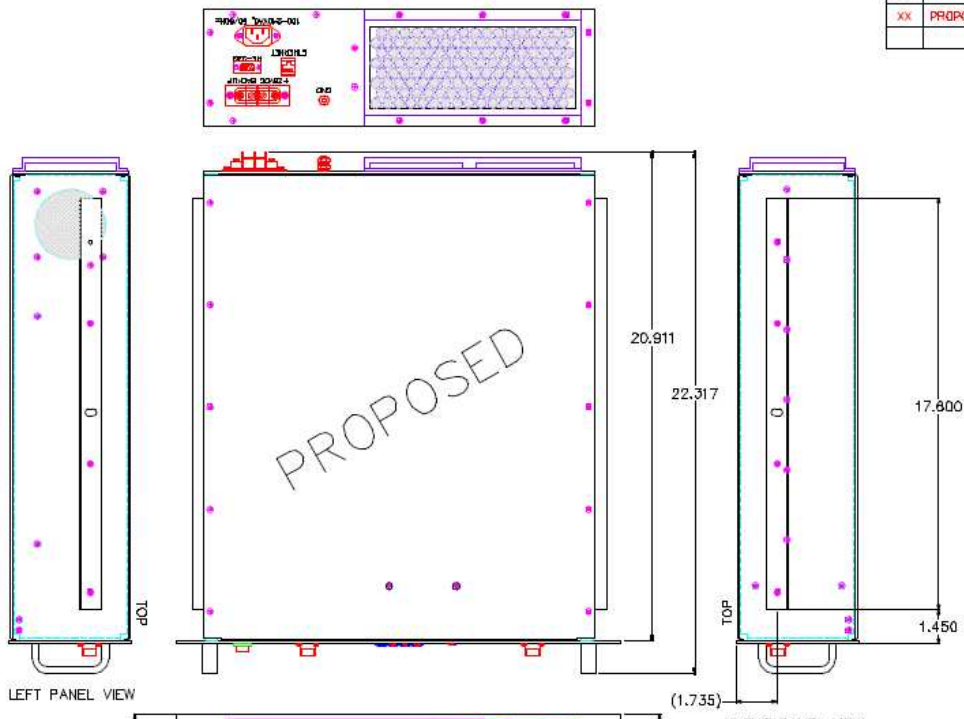


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REVISION HISTORY			
REV	DESCRIPTION	DATE	REVISED BY
XX	PROPOSED	06/03/08	R. BLACK



NOTES: UNLESS OTHERWISE SPECIFIED.

UNLESS OTHERWISE SPECIFIED		DWG	DATE		5300 BEETHOVEN ST. LOS ANGELES, CA 90066
DIMENSIONS ARE IN INCHES		R. BLACK	06/03/08		
INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994		DRW	DATE	TITLE	
TOLERANCES: ANGLES ± 2°		DEP	DATE	PROPOSED RF AMPLIFIER	
XXX ± .01		TRFD	DATE	700-800GHZ, 100W	
XXX ± .005		GA	DATE	REV	DATE
SURFACE FINISH		DRW	DATE	D	18813
THIRD ANGLE PROJECTION		FILE	DATE	SCALE	1:1
				FRONT ID	
				REV	PROPOSED
				1	4281FE
				OF	X1
				SHEET	1 OF 1