



Alga Microwave Inc.

SSPA vs. TWTA

For immediate release

Montreal, Quebec (October 29,2007) Alga Microwave Inc., a Canadian Manufacturer of quality, cost-effective, active and passive RF/Microwave components and systems, is pleased to announce a new 4000W Solid State Power Amplifier.

Using Field Replaceable Technology these Amplifiers offer 4kW of output power across C-Band (5.850-6.425GHz), Extended C-Band (5.850-6.725GHz) and X-Band (7.7-8.5GHz) satellite uplink bands.

The SSPA's integrated modular structural design that includes HPA Modules, Power Supplies, Input Distribution Modules and fans.

Common advantages of SSPA's versus TWTA's include:

- Higher MTBF
- Excellent Intermodulation Distortion performance and Linearity
- Lower operating voltage and smaller power consumption

TECHNICAL SPECIFICATIONS

Frequency Range	5.85 to 6.425 GHz or 5.850 to 6.725 GHz or 7.70 to 8.50 GHz
Output Power	66 dBm (4000 Watts) @ $P_{sat, nom}$
Input Power	10 dBm, max, no damage
Gain (small signal)	80 dB, min @ maximum Gain setting
Gain flatness (small signal)	± 1.5 dB, max, over full band ± 0.5 dB, max, over any and all 40 MHz bandwidth in the specified Frequency Range
Gain stability over temperature	± 2.5 dB, max
3 rd Order Inter-modulation (IMD-3)	-33 dBc @ 7 dB back off (Two equal signals total, 5 MH separate)
Spurious	-60 dBc in band, max, @ P_{1dB} , (maintained over full Gain Adjustment Range)

Noise figure	10 dB max @ maximum gain
AM to PM Conversion	2.5° /dB @ rated power
Group Delay	1ns per 40 MHz peak to peak, max

POWER SUPPLY

Input	(190 – 260) VAC; (50-60) Hz ($\pm 10\%$)
Power Factor	0.98
Power Consumption	24000 W, max

MECHANICAL (see attached drawing for more details)

Package	40U 19" EIA Rack
Cooling	Forced Air; rear panel in-out ducts
Exterior Surface Finish	Black Paint
Connectors:	
J1 - RF Input	N-type (Female)
J2 - RF Output	CPR137G/WR112G
J3 - AC Input	¼-20 Threaded Studs, Rear Panel
J4 - Analogue Interface	DB-15 (Female), Rear Panel
J5 - RS-232/RS-485 Interface	DB-9 (Female), Rear Panel
J6 - RF Output Monitor	N-type (Female), Front Panel, (optional)
J8 - Chassis Ground	¼-20 Threaded stud, Rear Panel

For more information please contact:

Alga Microwave Inc.
Phone: 514-683-6113
sales@alga.ca

