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MODEL 5136-747

1.25 - 1.35 GHz 800 WATTS PEAK LINEAR POWER RF AMPLIFIER

Solid State Broadband High Power RF Amplifier

The 5136-747 is a 800 Watt pulsed or CW amplifier that covers the 1.25 – 1.35 GHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent 3rd 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.

Specifications subject to change without notice

CIRCUIT PROTECTIONS

- ♦ Thermal Overload
- ♦ Over Current
- ♦ Over Voltage
- ♦ VSWR protection

CIRCUIT INDICATIONS

- ♦ Forward Power (Average)
- ♦ Reflected power (Average)
- ♦ VSWR Fault
- ♦ Temp Fault
- ♦ Gain Setting (VVA) percentage

CIRCUIT CONTROL

- ♦ Standby (amplifier disable)
- ♦ Gain/power setting with 25dB range
- ♦ VSWR protection Reset

Electrical 1 Frequency Range 1.25 – 1.35 GHz 2 Saturated Peak Output Power 800 Watts peak 3 Average Output Power* 240 Watts typ. 4 Small Signal Gain +54 dB min 5 Small Signal Gain Flatness +/- 1.0 dB 6 IP3 +65 dBm typical 7 Input VSWR 2:1 max 8 Harmonics -20 dBc typical 9 Spurious Signals < -60 dBc typical 10 Input/Output Impedance 50 Ohms nominal 11 AC Input Power 3000 Watts max 12 AC Input Power 3000 Watts max 12 AC Input Power 3000 Watts max 12 AC Input Power 3000 Watts max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Ty	_	<u>Parameter</u>	Specification @ 25° C
2 Saturated Peak Output Power 800 Watts peak 3 Average Output Power* 240 Watts typ. 4 Small Signal Gain +54 dB min 5 Small Signal Gain Flatness +/- 1.0 dB 6 IP3 +65 dBm typical 7 Input VSWR 2:1 max 8 Harmonics -20 dBc typical 9 Spurious Signals < -60 dBc typical 10 Input/Output Impedance 50 Ohms nominal 11 AC Input Power 3000 Watts max 12 AC Input Power 3000 Watts max 12 AC Input Power 3000 Watts max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air <	<u>Electrical</u>		
3 Average Output Power* 240 Watts typ. 4 Small Signal Gain +54 dB min 5 Small Signal Gain Flatness +/- 1.0 dB 6 IP ₃ +65 dBm typical 7 Input VSWR 2:1 max 8 Harmonics -20 dBc typical 9 Spurious Signals <-60 dBc typical 10 Input/Output Impedance 50 Ohms nominal 11 AC Input Power 3000 Watts max 12 AC Input 180 – 264 VAC, single phase 13 RF Input +10 dBm max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Altitude Up to 10,000' Above Sea Level	1	Frequency Range	1.25 – 1.35 GHz
Small Signal Gain	2	Saturated Peak Output Power	800 Watts peak
5 Small Signal Gain Flatness +/- 1.0 dB 6 IP ₃ +65 dBm typical 7 Input VSWR 2:1 max 8 Harmonics -20 dBc typical 9 Spurious Signals < -60 dBc typical 10 Input/Output Impedance 50 Ohms nominal 11 AC Input Power 3000 Watts max 12 AC Input Power 3000 Watts max 13 RF Input House +10 dBm max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing Operating Altitude Up to 10,00	3	Average Output Power*	240 Watts typ.
6 IP ₃ +65 dBm typical 7 Input VSWR 2:1 max 8 Harmonics -20 dBc typical 9 Spurious Signals < -60 dBc typical 10 Input/Output Impedance 50 Ohms nominal 11 AC Input Power 3000 Watts max 12 AC Input 180 – 264 VAC, single phase 13 RF Input +10 dBm max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Altitude Up to 10,000' Above Sea Level	4	Small Signal Gain	+54 dB min
7 Input VSWR 2:1 max 8 Harmonics -20 dBc typical 9 Spurious Signals < -60 dBc typical 10 Input/Output Impedance 50 Ohms nominal 11 AC Input Power 3000 Watts max 12 AC Input 180 – 264 VAC, single phase 13 RF Input +10 dBm max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	5	Small Signal Gain Flatness	+/- 1.0 dB
8 Harmonics -20 dBc typical 9 Spurious Signals < -60 dBc typical 10 Input/Output Impedance 50 Ohms nominal 11 AC Input Power 3000 Watts max 12 AC Input 180 – 264 VAC, single phase 13 RF Input +10 dBm max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	6	IP ₃	+65 dBm typical
9 Spurious Signals < -60 dBc typical 10 Input/Output Impedance 50 Ohms nominal 11 AC Input Power 3000 Watts max 12 AC Input 180 – 264 VAC, single phase 13 RF Input +10 dBm max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	7	Input VSWR	2:1 max
10 Input/Output Impedance 50 Ohms nominal 11 AC Input Power 3000 Watts max 12 AC Input 180 – 264 VAC, single phase 13 RF Input +10 dBm max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	8	Harmonics	-20 dBc typical
11 AC Input Power 3000 Watts max 12 AC Input 180 – 264 VAC, single phase 13 RF Input +10 dBm max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	9	Spurious Signals	< -60 dBc typical
12 AC Input 180 – 264 VAC, single phase 13 RF Input +10 dBm max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	10	Input/Output Impedance	50 Ohms nominal
13 RF Input +10 dBm max 14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	11	AC Input Power	3000 Watts max
14 RF Input Signal Format Pulse 15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	12	AC Input	180 – 264 VAC, single phase
15 Duty cycle 30% max 16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	13	RF Input	+10 dBm max
16 Class of Operation A/AB Mechanical Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	14	RF Input Signal Format	Pulse
MechanicalDimensions19" x 8.75" x 26.5"17Weight74 lb. max18ConnectorsType-N (RF Input/Output)19GroundingChassis20CoolingInternal Forced AirEnvironmental21Operating Temperature0° C to +50° C22Operating Humidity95% Non-condensing23Operating AltitudeUp to 10,000' Above Sea Level	15	Duty cycle	30% max
Dimensions 19" x 8.75" x 26.5" 17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	16	Class of Operation	A/AB
17 Weight 74 lb. max 18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	<u>Mechanical</u>		
18 Connectors Type-N (RF Input/Output) 19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level		Dimensions	19" x 8.75" x 26.5"
19 Grounding Chassis 20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	17	Weight	74 lb. max
20 Cooling Internal Forced Air Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	18	Connectors	Type-N (RF Input/Output)
Environmental 21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	19	Grounding	Chassis
21 Operating Temperature 0° C to +50° C 22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	20	Cooling	Internal Forced Air
22 Operating Humidity 95% Non-condensing 23 Operating Altitude Up to 10,000' Above Sea Level	<u>Environmental</u>		
23 Operating Altitude Up to 10,000' Above Sea Level	21	Operating Temperature	0° C to +50° C
	22	Operating Humidity	95% Non-condensing
24 Shock and Vibration Normal Truck Transport	23	Operating Altitude	Up to 10,000' Above Sea Level
	24	Shock and Vibration	Normal Truck Transport

* = Average Power is based on a 30% duty cycle



ORDERING MODELS

- \Diamond RE Rear Panel model with RS232, IEEE, & Ethernet
- ♦ FE Front Panel model with RS232, IEEE, & Ethernet

05/30/12 Approved by: _____ Date: _____