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MODEL 5803106

0.01 - 50 MHz 200 WATTS LINEAR POWER RF AMPLIFIER

Solid State Broadband High Power RF Amplifier

The 5803106 is a 200 Watt broadband amplifier that covers the 0.01 – 50 MHz 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.

The 5803106 comes with Heatsink and Fan.

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

D-Sub 1		D-Sub 2	
Pin	Description	Pin	Description
1	+32 to 42	1	NC
		2	NC
2	+32 to 42	3	NC
		4	NC
3	NC		Temp
4	NC	5	Indication
5	NC	6	NC
6	+32 to 42	7	NC
		8	NC
7	+32 to 42	9	Enable/
0	NC		Disable
8	NC		

NC

Electrical Specification @ 25° C 1 Frequency Range 0.01 – 50 MHz 2 Output power @ Psat 200 Watts min* 3 Power Output @ 1dB Comp. 100 Watts min* 4 Small Signal Gain +51 dB min 5 Small Signal Gain Flatness +/-1.5 dB max 6 Input VSWR 2:1 max 7 Harmonics -20 dBc max 8 Spurious Signals < -60 dBc 9 Input/Output Impedance 50 Ohms nominal 10 DC Input Power 14A max* 12 DC Input Power 32 to 42 Vdc 13 RF Input Power 0 dBm nominal +3 dBm maximum +3 dBm maximum 14 Class of Operation A/AB 15 Interface D-sub (2x) 16 Module Enable -3-5 Vdc = Enable <0.5 Vdc = Off			
1		<u>Parameter</u>	Specification @ 25° C
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3	1	Frequency Range	0.01 – 50 MHz
4 Small Signal Gain +51 dB min 5 Small Signal Gain Flatness +/-1.5 dB max 6 Input VSWR 2:1 max 7 Harmonics -20 dBc max 8 Spurious Signals < -60 dBc 9 Input/Output Impedance 50 Ohms nominal 10 DC Input Power 14A max* 12 DC Input 32 to 42 Vdc 13 RF Input Power 0 dBm mominal 14 Class of Operation A/AB 15 Interface D-sub (2x) 16 Module Enable 3-5 Vdc = Enable <0.5 Vdc = Off 17 Temperature Indication LM35 0.1V/10°C Mechanical 18 Dimensions 17" x 10" x 5" 19 Weight 25 lb. max 20 Connectors SMA for RF input Type-N for RF Output D-sub for control & indications Ground lug for Ground 21 Grounding Chassis 22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	2	Output power @ Psat	200 Watts min*
5 Small Signal Gain Flatness +/-1.5 dB max 6 Input VSWR 2:1 max 7 Harmonics -20 dBc max 8 Spurious Signals < -60 dBc 9 Input/Output Impedance 50 Ohms nominal 10 DC Input Power 14A max* 12 DC Input Power 0 dBm nominal 13 RF Input Power 0 dBm nominal 14 Class of Operation A/AB 15 Interface D-sub (2x) 16 Module Enable 3-5 Vdc = Enable <0.5 Vdc = Off -0.5 Vdc = Off 17 Temperature Indication LM35 0.1V/10°C Mechanical 18 Dimensions 17" x 10" x 5" 19 Weight 25 lb. max 20 Connectors SMA for RF input Type-N for RF Output D-sub for control & indications Ground lug for Ground 21 Grounding Chassis 22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Te	3	Power Output @ 1dB Comp.	100 Watts min*
1	4	Small Signal Gain	+51 dB min
7 Harmonics -20 dBc max 8 Spurious Signals < -60 dBc 9 Input/Output Impedance 50 Ohms nominal 10 DC Input Power 14A max* 12 DC Input 32 to 42 Vdc 13 RF Input Power 0 dBm nominal +3 dBm maximum 14 Class of Operation A/AB 15 Interface D-sub (2x) 16 Module Enable 3-5 Vdc = Enable <0.5 Vdc = Off 17 Temperature Indication LM35 0.1V/10°C Mechanical 18 Dimensions 17" x 10" x 5" 19 Weight 25 lb. max 20 Connectors SMA for RF input Type-N for RF Output D-sub for control & indications Ground lug for Ground 21 Grounding Chassis 22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	5	Small Signal Gain Flatness	+/-1.5 dB max
Spurious Signals Spurious Signals Spurious Signals	6	Input VSWR	2:1 max
9	7	Harmonics	-20 dBc max
10 DC Input Power 14A max* 12 DC Input 32 to 42 Vdc 13 RF Input Power 0 dBm nominal +3 dBm maximum 14 Class of Operation A/AB 15 Interface D-sub (2x) 16 Module Enable 3-5 Vdc = Enable <0.5 Vdc = Off 17 Temperature Indication LM35 0.1V/10°C Mechanical 18 Dimensions 17" x 10" x 5" 19 Weight 25 lb. max 20 Connectors SMA for RF input Type-N for RF Output D-sub for control & indications Ground lug for Ground 21 Grounding Chassis 22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	8	Spurious Signals	< -60 dBc
12	9	Input/Output Impedance	50 Ohms nominal
13 RF Input Power	10	DC Input Power	14A max*
#3 dBm maximum 14 Class of Operation A/AB 15 Interface D-sub (2x) 16 Module Enable 3-5 Vdc = Enable <0.5 Vdc = Off 17 Temperature Indication LM35 0.1V/10°C Mechanical 18 Dimensions 17" x 10" x 5" 19 Weight 25 lb. max 20 Connectors SMA for RF input Type-N for RF Output D-sub for control & indications Ground lug for Ground 21 Grounding Chassis 22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	12	DC Input	32 to 42 Vdc
15 Interface D-sub (2x) 16 Module Enable 3-5 Vdc = Enable < 0.5 Vdc = Off 17 Temperature Indication LM35 0.1V/10°C Mechanical 18 Dimensions 17" x 10" x 5" 19 Weight 25 lb. max 20 Connectors SMA for RF input Type-N for RF Output D-sub for control & indications Ground lug for Ground 21 Grounding Chassis 22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	13	RF Input Power	
16 Module Enable 3-5 Vdc = Enable <0.5 Vdc = Off 17 Temperature Indication LM35 0.1V/10°C Mechanical 18 Dimensions 17" x 10" x 5" 19 Weight 25 lb. max 20 Connectors SMA for RF input Type-N for RF Output D-sub for control & indications Ground lug for Ground 21 Grounding Chassis 22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	14	Class of Operation	A/AB
Co.5 Vdc = Off	15	Interface	D-sub (2x)
Mechanical Dimensions 17" x 10" x 5" 19 Weight 25 lb. max 20 Connectors SMA for RF input Type-N for RF Output D-sub for control & indications Ground lug for Ground 21 Grounding Chassis 22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	16	Module Enable	
18 Dimensions 17" x 10" x 5" 19 Weight 25 lb. max 20 Connectors SMA for RF input Type-N for RF Output D-sub for control & indications Ground lug for Ground 21 Grounding Chassis 22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	17	Temperature Indication	LM35 0.1V/10°C
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20 Connectors SMA for RF input Type-N for RF Output D-sub for control & indications Ground lug for Ground 21 Grounding Chassis 22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	18	Dimensions	17" x 10" x 5"
Type-N for RF Output D-sub for control & indications Ground lug for Ground 21 Grounding Chassis 22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	19	Weight	25 lb. max
22 Cooling Adequate Heatsink and Fans supplied Environmental 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	20	Connectors	Type-N for RF Output D-sub for control & indications
supplied Environmental Supplied 24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	21	Grounding	Chassis
24 Ambient Temperature -20° C to +65° C 25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	22	Cooling	
25 Operating Humidity 95% Non-condensing 26 Operating Altitude Up to 10,000' Above Sea Level	<u>Environmental</u>		
26 Operating Altitude Up to 10,000' Above Sea Level	24	Ambient Temperature	-20° C to +65° C
	25	Operating Humidity	95% Non-condensing
27 Shock and Vibration Normal Truck Transport	26	Operating Altitude	Up to 10,000' Above Sea Level
	27	Shock and Vibration	Normal Truck Transport

Specifications subject to change without notice *Data taken at +42 Vdc input

03/16	Approved By:	Date:
03/10	Approved by.	Date.