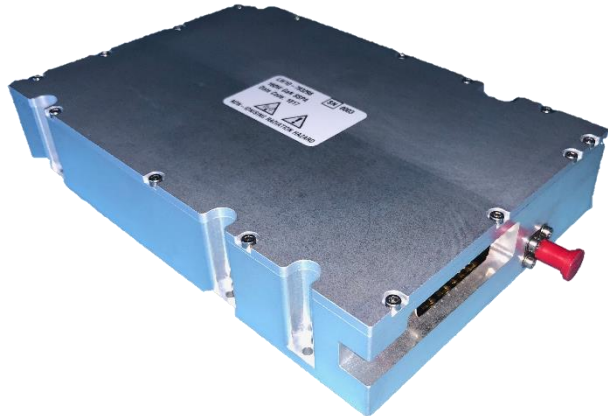


X band 200 W GaN Based Solid State Power Amplifier.
LW10-797619
PRODUCT FEATURES

- 8.7 to 9.3 GHz Operating band.
- 52 dBm min. Peak Pulsed Power.
- 28 V Operation.
- Compact, conduction cooled.
- 100 W and 50 W variants available.


PRODUCT DESCRIPTION

The Amplifier is designed for X band pulsed power applications with up to 80% duty cycle. The amplifier uses high performance Gallium Nitride (GaN) power transistors to achieve high output power combined with a respectable efficiency at X-band. The amplifier provides excellent thermal stability through the use of a high thermal conductivity carrier. The product is ideally suited for high power ATC and surveillance radar, general purpose high power output stages.

ELECTRICAL SPECIFICATIONS @ 35°C, 50 Ω System

Parameter	Description	Min	Typ	Max	Unit
Operating Frequency		8.7		9.3	GHz
Saturated Output Power		52	53		dBm
Small Signal Gain			65		dB
Output Load VSWR				2:1	
Input RF Drive			<-10		dBm
Voltage Ripple	Pk-Pk		1		V

Linwave reserves the right to make changes, without notice, in the products, including circuits, standard cells, and/or software, described or contained herein in order to improve design and/or performance.

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Parameter	Description	Min	Typ	Max	Unit
Pulse Width	For nominal 20% duty cycle		80		μsec
Pulse Width	80% duty cycle 5 seconds active every 1 minute.		400		μsec
Duty Cycle	Nominal Operating.		20		%
Duty Cycle	80% duty cycle 5 seconds active every 1 minute		80		%
Spurious	Non harmonic.		-70		dBm
Supply Voltage			28		V
Supply Current (Pout=52dBm)			52		A

MONITORING SIGNALS.

Parameter	Value	Unit
Baseplate temperature monitor	10	mV/°C
Current monitor	50	mV/A
Fault Alarm (TTL logic)	Fault= +5V, No Fault = 0V	V

MECHANICAL SPECIFICATIONS.

Parameter	Value	Unit	Limits
Dimensions (L x W x H) excluding RF connectors	199 x 134 x 37.5	mm	Max
Input/Output RF connectors	SMA	mV/A	
DC power input and monitoring output connector	Combo D-Type	V	
Weight	1.9	Kg	Max
Cooling	External Heat Sink Required		

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100 W and 50 W ELECTRICAL SPECIFICATIONS @ 35°C, 50 Ω System

Parameter	Description	Min	Typ	Max	Unit
Supply Voltage			28		V
100 W Supply Current (Pout=50dBm)			21		A
50 W Supply Current (Pout=47dBm)			11		A

Other parameters as per 200 W unit.

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