

New 4RU Rack Mount

High Power Pulsed Amplifier

4.0 kW X-Band Chassis



Teledyne Paradise Datacom introduces its line of **GaN High Efficiency Solid State High Power Pulsed Amplifiers** for use in radar applications and ship-board environments.

This new SSPA represents an ideal pathway for Operators seeking to upgrade their existing legacy radar platforms – typically TWT, Magnetron, or Klystrom-based - with a newer generation of technology. Solid state technology delivers superior SWaP, power density, scalability, and performance over a longer life cycle.

These amplifiers draw upon Teledyne Paradise Datacom's rich history in the design and production of Gallium Nitride (GaN) based SSPAs.

The amplifier is designed for installation in a standard 19" equipment rack, and features forced-air-cooling with hot-swappable fan trays at the front panel. Each amplifier takes up 4 rack units (4RU).

The **High Power Pulsed Amplifier** may be connected over an ethernet connection to a PC for remote monitor and control of the unit.

FEATURES & BENEFITS

- For Defense-related applications
- Ideal for Shipboard requirements
- Designed for navigation, targeting, tracking
- Superior SWaP and power density
- Configurable for diverse radar platforms
- Scalable to address other power levels
- Longer life cycle than legacy systems
- Suitable for commercial navigation & weather/air traffic control systems
- Forced-air convection cooling system with hot-swappable fan trays
- Optional AC power

High Power Pulsed Amplifier

4RU Rack Mount / 4.0 kW X-Band Chassis

SPECIFICATIONS

PARAMETER	NOTES	LIMITS	UNITS
Frequency Range		9 to 10	GHz
Output Power, Saturated (Psat)	Typical	66.1 (4074)	dBm (W)
RF Duty Cycle	Maximum	10	%
Pulse Width	Range	1 to 100	μs
VSWR	Maximum	1.5:1	
RF Input		-1 to +1	dBm
Average Power Consumption		≤ 3200	Watts
Voltage		48.0 ± 1%	VDC
	w/ optional AC power	220	VAC

ENVIRONMENTAL SPECIFICATIONS

PARAMETER	NOTES	LIMITS	UNITS
Operating Temperature		0 to +40	°C
Operating Humidity		0 to 90	%

MECHANICAL SPECIFICATIONS

PARAMETER	NOTES	LIMITS	UNITS
Dimensions, 4RU	(H X W X D)	7 X 19 X 17 (177 X 483 X 432)	in (mm)
Weight		51.0 (23.2)	lbs. (kg)
Connectors			
RF Input		50Ω SMA	
RF Output		WR-90 UG136 B/U	
Pulse Gate Input		50Ω BNC	
DC Prime Power Input		23 SHELL, MIL-DTL	
Ethernet Control		RJ45 (RJF21N)	

Use and Disclosure of Data — The items described herein is controlled by the Export Administration Regulations (EAR) and requires an export license, license exception or other approval from the appropriate U.S. Government agency before being exported from the United States, reexported, transferred or retransferred to any non-U.S. person. Diversion contrary to U.S. law is prohibited.

Proprietary and Confidential — The information contained in this document is the sole property of Teledyne Paradise Datacom. Any reproduction in part or as a whole without the written permission of Teledyne Paradise Datacom is prohibited.