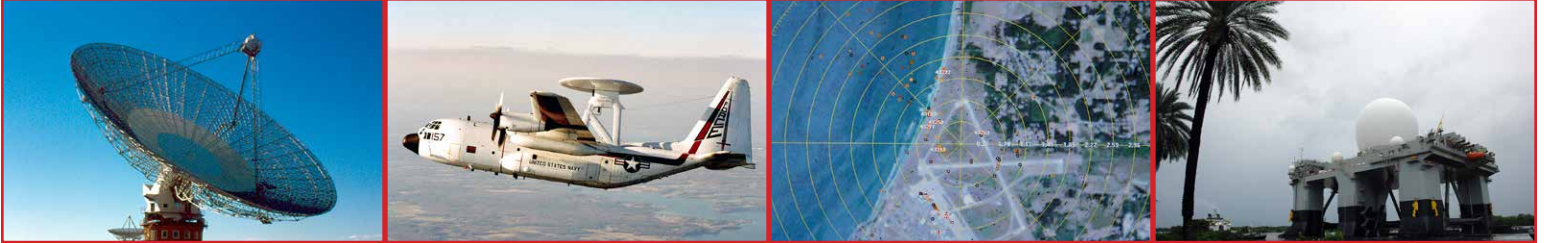


# RADAR

GROUND BASED, SHIPBOARD AND AIRBORNE (INCLUDING UAV)



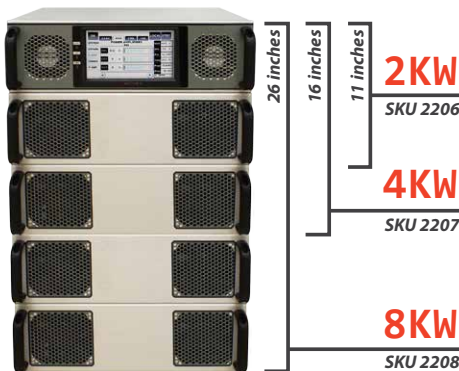
*Critical technologies and capabilities required for this application*

Empower RF Systems offers a wide variety of power amplifiers as stand-alone or high power drivers up to several kilowatts. Radar applications include HF for over-the-horizon (OTH), VHF for very long range and ground penetration and UHF for very long range (e.g. ballistic missile early warning) and foliage penetration (SAR). Empower has also provided amplifiers in L-band for long range air traffic control and surveillance (IFF) as well as S-band for moderate range surveillance and long range weather.

*How Empower is positioned to support these applications*

Empower RF Systems utilizes the latest semiconductor technologies to provide high gain, high peak power capability, and pulse fidelity. Exceptional performance, long term reliability, high efficiency and sharp rise/fall times are achieved by employing advanced RF matching networks and combining techniques, EMI/RFI filters, and all qualified components. Our amplifiers are constructed of modular RF sections offered individually for size and weight constraints as well as in rack cabinets with power supplies to meet any power requirements. Systems have built in control, monitoring and protection functions and forced air cooling as required.

Empower manufactures RF amplifiers to meet the environmental conditions of ground based, shipboard and airborne applications. Empower RF's ISO9001 Quality Assurance Program ensures consistent performance and the highest reliability.



### *Scalable L-band Pulsed Family*

You buy only the power you need today and add power amplifier blocks later when your requirements grow. Adding 3U power amplifier blocks is accomplished easily and simply with no phase matching required.

# RADAR

GROUND BASED, SHIPBOARD AND AIRBORNE (INCLUDING UAV)

## SYSTEMS

SKU	Start (MHz)	Stop (MHz)	Pout (Watt)	Gain (dB)	Size (Inch)
2210	150	450	12000 P	75	R19U
2178	270	450	2000	68	R5U + R3U
2103	200	1000	1000	60	R5U+R3U
2164	200	1000	1000 P	60	R3U + R1U
2185	960	1215	10000 P	74	R3U + R3U + R3U
2163	1000	1500	3000 P	66	R3U + R1U
2167	1500	1700	2000	64	R5U + R3U
2206	1000	2000	2000	63	R3U+R3U
2207	1000	2000	4000	66	R3U+R3U+R3U
2208	1000	2000	8000	69	Five R3U
2157	1000	2000	1300	62	R3U+R5U
2208	1000	2000	8000	69	Five R3U
2171	2000	2160	1000	60	R5U
2180	1000	2500	2000	68	R5U + R3U
2168	2000	2500	800	60	R5U
2170	1000	3000	1000	63	R5U
2211	2700	3100	1200	62	R3U
6012	3100	3500	1300 P	38	R3U
2215	1900	6000	200	53	R5U

P - Pulse

*The products listed in this table highlight an array of high performance CW and pulse power products that are presently fielded in demanding applications. We can also provide derivatives of these units to decrease NRE costs and shorten lead times. Empower designs and manufactures custom solutions to meet specific frequency and power requirements in addition to specialized packaging. Our core strengths reside in the 1MHz-6GHz frequency range with RF pulse power outputs to 20kW.*

*Shown here is a 960 to 1215 MHz, 10 kW pulse amplifier SKU 2185. The compact design consists of three, R3U chassis and the system is assembled in a larger rack, as shown, with blindmate connectors on the combiner for easy loading and removal of the individual amplifier drawers.*



## High Power AMPLIFIERS

**RUGGED**

**EFFICIENT**

**COMPACT**

- High Efficiency, Best in Class SWaP
- Redundant Amplifier Architecture to Maximize "On Air" Power
- Pulse Carrier Modulation and Pulse Blanking
- Customizable Software Defined Architecture
- AC, 400 Hz, and DC Power Available
- Flexible Operating Modes Ideal for Radar and Related Research, Product Testing, Threat Simulation

## CAPABILITIES

- ◆ Hot Swapping – Optional
- ◆ Power Scaling – Select Models
- ◆ Pulse Shaping – Coming Soon
- ◆ Long Duty Cycles Available
- ◆ Automatic Level Control (ALC)
- ◆ Automatic Gain Control (AGC)
- ◆ Fault on User Defined Pulse Width or Duty Cycle
- ◆ Selectable Fold-Back or Shutdown on Fault