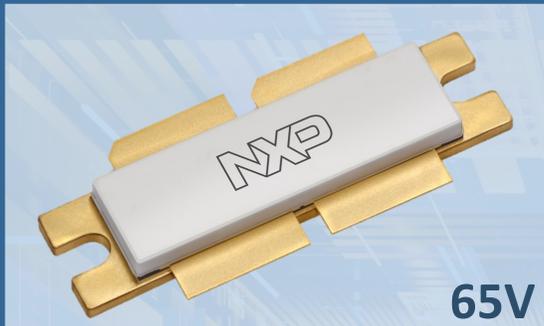


# MRFX1K80HR5-Industry's highest performing CW transistor.

Higher Power. Ease of Use. No Compromise.

## MRFX1K80HR5



65V

1800 W CW—1.8 - 470 MHz

## Introducing the MRFX1K80H

- Industry's highest CW performance
- Designed for ease of use
- Pin-compatible with MRFE6VP61K25H/N and MRF1K50H/N
  - Same PCB with little to no retuning depending on frequency and bandwidth
- Most 50 V power supplies can be pushed up to 57.5 V, enabling minimal changes for extra power
- Unmatched input and output
- Push-pull
- NI-1230 air-cavity ceramic package
- 0.09°C/W thermal resistance
- 191 V typ. / 179 V min. breakdown voltage  $V_{(BR)DSS}$
- Extreme ruggedness: handles 65:1 VSWR
- Warranted availability until 2032 minimum

## Why 65V? Ease of use



**More power**-Higher voltage enables higher power density, which helps reduce the number of transistors to combine



**Faster development time**-With higher voltage, the output power can be increased while retaining a reasonable output impedance.



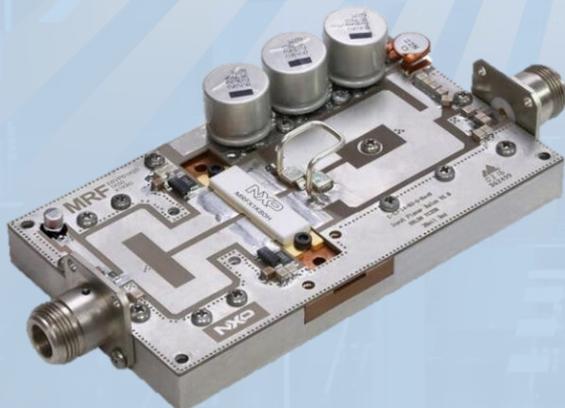
**Design reuse**-This impedance benefit also ensures pin-compatibility with current 50 V LDMOS transistors for better scalability.



**Manageable current level**-Higher voltage reduces the current loss in the system.



**Wide safety margin**-The higher breakdown voltage of 191 V typical Improves ruggedness and allows for higher efficiency classes of operation

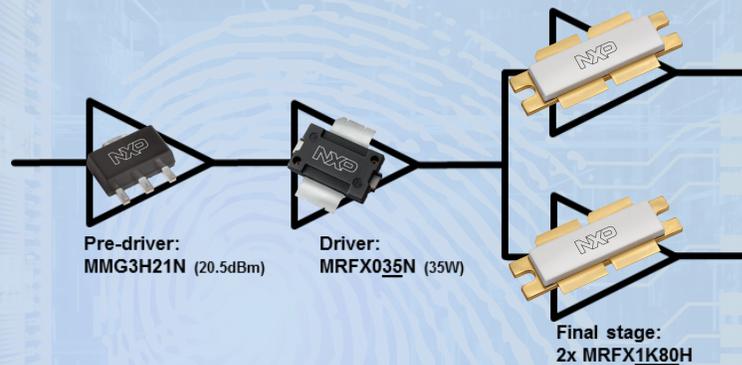


## Available Reference Circuits

Frequency	Voltage	Pout	Gain (dB)	Drain Eff. (%)
27 MHz	50	1200 CW	26.0	82.3
	57.5	1520 CW	27.0	80.1
	65	1800 CW	27.8	75.6
87.5—108 MHz	50	1140 CW	19.8	83.4
	60	1615 CW	21.3	82.6
230 MHz	65	1800 Pulse	24.0	74.0

# MRFX1K80 Target Markets

- **Industrial, Scientific, Medical (ISM)**
  - Laser generation
  - Plasma etching
  - Magnetic Resonance Imaging (MRI)
  - Diathermy, skin laser, RF ablation
  - Industrial heating, welding, and drying systems
  - Particle accelerators
- **Broadcast**
  - Radio broadcast (FM/DAB)
  - VHF TV broadcast
- **Aerospace**
  - VHF omnidirectional range (VOR)
  - HF and VF communications
  - Weather radar
- **Mobile Radio**
  - VHF base stations



[WWW.NXP.COM/MRFX1K80H](http://WWW.NXP.COM/MRFX1K80H)



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MRFX1K80HR5	AVAILABLE NOW
Samples Available Now!	

**DATA SHEET**

