

# GaN discrete mMIMO solutions for 5G telecom infrastructure



NXP’s extensive portfolio of RF power solutions for active antenna systems (AAS) includes GaN discrete mMIMO solutions for 64T64R and 32T32R solutions.

64T64R radios contain 64 power amplifiers that enable beamforming in dense urban areas to maximize the end user 5G experience. 32T32R radios contain 32 power amplifiers that enable a wider coverage, making them ideal for suburban environments.



## Portfolio overview

Antenna Order With average output power at the antenna	2.3 GHz	2.6 GHz	3.5 GHz	3.7 GHz	3.9 GHz
<b>32T32R</b> (10 W)	A5G23H110N	A5G26H110N	A5G35H120N A5G35H110N	A5G37H110N	
	Driver: A5G26S008N		Driver: A5G35S008N		
<b>64T64R</b> (5 W)	A5G23H065N	A3G26D055N	A5G35H055N		A5G38H045N
	Driver: A5G26S004N		Driver: A5G35S004N		

## Key features

- Peak power levels of 47.4 dBm (55 W) and 50.4 dBm (110 W), typically addressing 64T64R and 32T32R radio unit configurations
- NXP's proprietary RF GaN technology, developed and manufactured in NXP's GaN fab in Chandler, Arizona
- The majority of the transistors share the same DFN 7 x 6.5 package

## Benefits

- High efficiency GaN devices for optimal power consumption and lower radio unit size and weight
- NXP's low-memory RF GaN technology is designed for high linearizability
- Pin-to-pin compatibility across power and frequency bands for design reuse

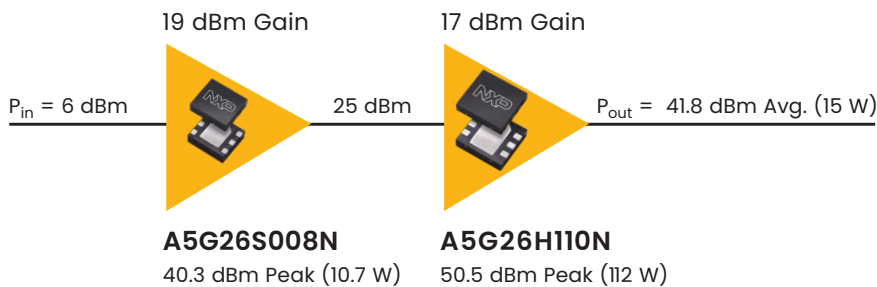


NXP's high-volume GaN manufacturing facility in Chandler, Arizona

## Typical Performance: A5G26H110N

Frequency	Gain (dB)	Efficiency (%)	Output PAR (dB)	ACPR (dBc)
2496 MHz	16.2	58.5	8.6	-29.2
2595 MHz	17.0	57.1	8.7	-33.4
2690 MHz	16.7	58.2	8.2	-34.6

## Typical Lineup



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