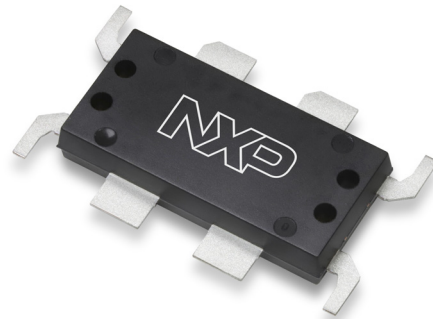


RF high power GaN solutions for 5G infrastructure



NXP's RF power macro GaN portfolio includes high power RF transistors designed for Remote Radio Heads (RRH) in cellular base stations. These devices are designed for 40 W to 80 W radio units targeting 4T4R and 8T8R infrastructures.

The traditional 4T4R radio configuration contains 4 power amplifiers and is used in areas with moderate data demand. 8T8R radios allow for more complex beamforming to improve signal reach and the ability to handle more simultaneous users in higher density environments such as suburban communities.



Portfolio overview

700 MHz	900 MHz	1.8 GHz	1.9 GHz	2.1 GHz	2.6 GHz
A5G07H800W19N	A5G08H800W19N	A5G18H610W19N	A5G19H605W19N	A5G21H605W19N	A5G26H605W19N A5G26H606W19N(Q3 24)

Key features

- Common package across frequency bands: OM-780-4S4S over-molded plastic package
- High impedances for optimal broadband performance
- Designed in asymmetric Doherty configuration for high-efficiency performance
- Able to withstand high output VSWR and broadband operating conditions
- Low-memory GaN; enables improved Error Vector Magnitude (EVM) with Digital Pre-Distortion (DPD) for high linearity of the RF signal
- Manufactured in NXP's Gallium Nitride fab in Chandler, Arizona



Typical performance

Part Number	Reference Board Antenna Power	Frequency (MHz)	Avg. Power (dBm)/(W)	Gain (dB)	Efficiency (%)	PAR (dB)
A5G07H800W19N	80 W	758-821 MHz (n14, n20, n80)	50.5 dBm (112 W)	19.5	61	9.0
A5G08H800W19N	80 W	865-960 MHz (n8, n5)	50.5 dBm (112 W)	18	58	8.0
A5G18H610W19N	60 W	1805-1880 MHz (n3)	49.3 dBm (85 W)	17	55	8.5
	40 W	1805-1880 MHz (n3)	47.5 dBm (56 W)	15	54	8.5
A5G19H605W19N	60 W	1930-1995 MHz (n2, n25)	49.3 dBm (85 W)	17	55	8.4
	40 W	1930-1995 MHz (n2, n25)	47.5 dBm (56 W)	15	54	8.4
A5G21H605W19N	60 W	2110-2170 MHz (n1)	49.3 dBm (85 W)	16	56	8.5
	40 W	2110-2170 MHz (n1)	47.5 dBm (56 W)	15	54	8.5
A5G26H605W19N	60 W	2620-2690 MHz (n7)	49.3 dBm (85 W)	15	52	8.3
	40 W	2620-2690 MHz (n7)	47.5 dBm (56 W)	14	52	8.3
A5G26H606W19N (Q3 24)	60 W	2496-2690 MHz (n38, n41, n7, n90)	49.3 dBm (85 W)	15	52	8.0

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Document Number: MACROGANFS REV 0