

VM1800J is part of a new series of GaN based PA's developed specifically to cover GSM requirements. Key attributes include high operating temperature range compared to traditional VDMOS/LDMOS units and exceptional efficiency and power output for its size.



### PRODUCT FEATURES

- 100W Min
- Efficiency 50% Typical
- <1µs Sargas Switching
- Compact, Lightweight, Robust

PARAMETER	MINIMUM	MAXIMUM	TYPICAL	COMMENTS
Frequency	1750 MHz	1900MHz		
Psat Power @ 28V	100W		110W	1805MHz to 1880MHz
Gain @ Psat	47dB	51dB	49dB	Max input +5dBm
Gain variation @ Psat			±1.0dB	
Small signal gain			53dB	
Input return loss			-7dB	
Harmonic		-15dBc	-25dBc	2nd Harmonic @ Psat
Psat Current @ 28V		9A	8.5A	Maximum DC Power consumption 250W
Psat Efficiency @ 28V	45%	55%	50%	
Standard Rise Time			5µs	Standard shutdown (Pin 4 D-type)
Enhanced Rise Time			900ns	Sargas switching (Pin 5 D-type)
Intermodulation		-30dBc	-35dBc	Two 20W tones, 1MHz Spacing
Intermodulation		-28dBc	-30dBc	Two 20W tones, 10MHz Spacing
Dimensions LxWxH				100mm x 91.5mm x 30mm
Weight			350g	
Connectors				SMA & 9 Pin D-type
Operating Temperature	-20°C	+80°C		Temperature measured at PA Case
Thermal Protection				Cut out operates at 85°C
Open/short Survivability				10:1 VSWR at all phase angles

### Other products in GSM series:

**VM900J** 100W min.

**VM2100J** 100W min.

This product is designed and manufactured in the United Kingdom in accordance with the ISO 9001:2015 Quality Management System. RoHS compliant parts and processes are used in the manufacture of this product.