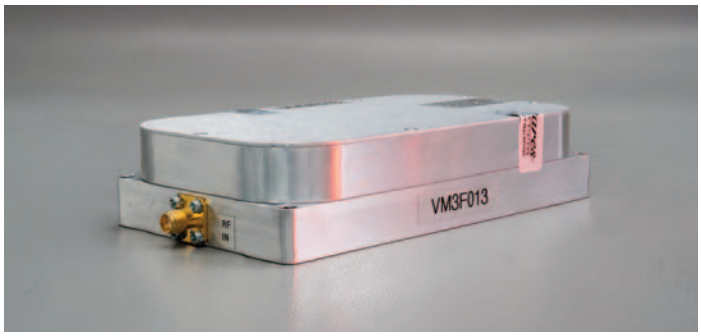
VM3F

HIGH POWER GaN POWER AMPLIFIER
2.0GHz-6GHz 60W PA

ANTARES
DEFENCE SYSTEMS

VM3F 2.0GHz to 6GHz is a wideband, high power GaN Power Amplifier suitable for use in a variety of ECM applications.



PRODUCT FEATURES

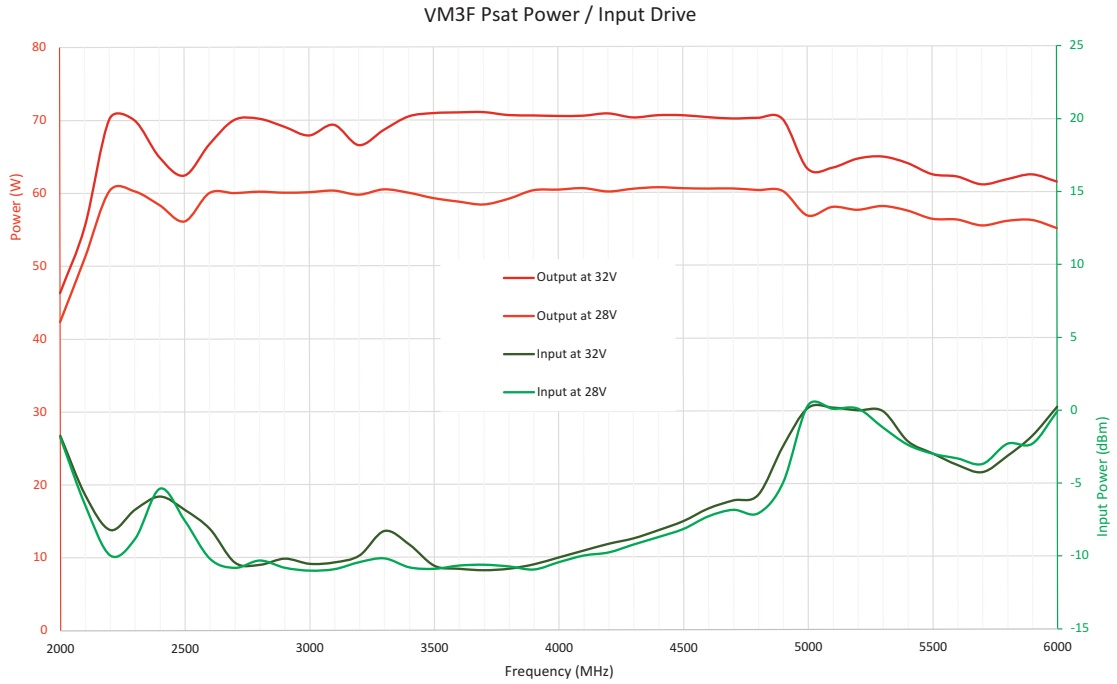
- Broadband 2.0GHz to 6GHz
- Max power 70W at 32V
- Sargas2 Switching
- Compact and Robust

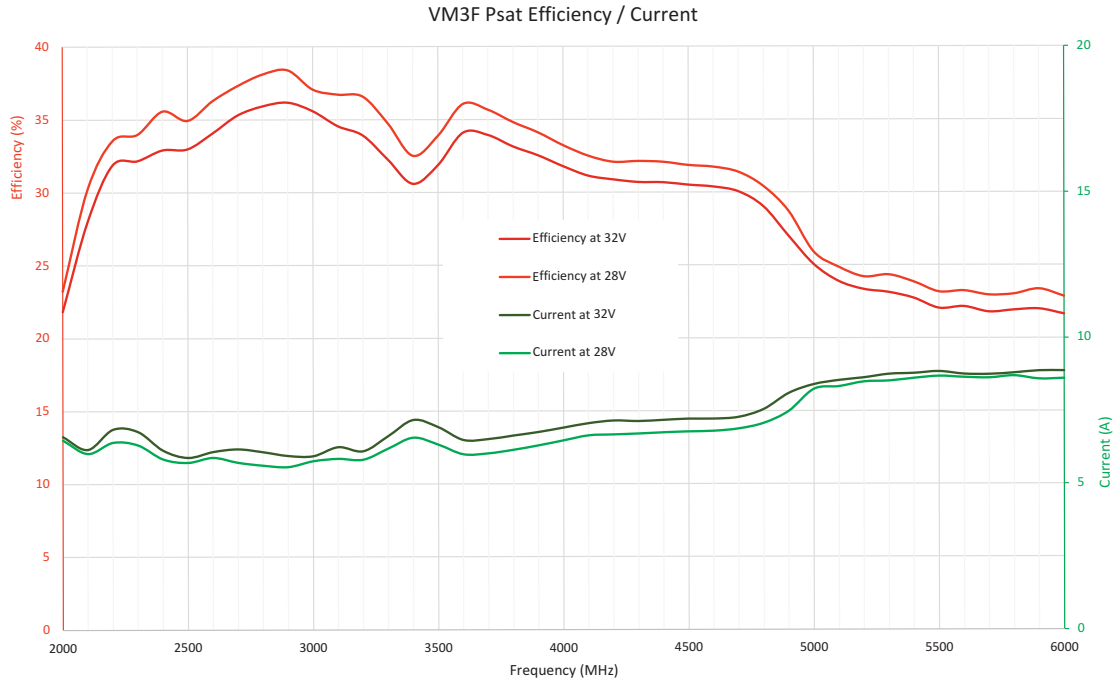
PARAMETER	MINIMUM	MAXIMUM	TYPICAL	COMMENTS
Frequency	2.0GHz	6GHz		
Psat Power @ 28V	45W	60W	55W	Psat or 60W (2.1GHz to 6GHz >50W)
Psat Power @ 32V	50W	70W	65W	Psat or 70W (2.1GHz to 6GHz >60W)
Large Signal Gain			50dB	Typical -3dBm in at 28V
Input Return Loss			-10dB	
2nd Harmonics		-10dBc	-25dBc	
Current at Psat or 60W		9A	7A	Supply Voltage 28V
Efficiency at Psat or 60W	20%	35%	25%	Supply Voltage 28V
Input Voltage	22V	32V	28V	Predictable power variation with voltage
Sargas2 Mute Rise time			300ns	Pin 5
Shutdown Rise time			15us	Pin 4
Sargas2 Mute isolation			-35dB	Pin 5
Shutdown Current			50mA	Pin 4
Intermodulation		-20dBc	-25dBc	Two 10W Tones, 1MHz Spacing
Dimensions LxWxH				137mm x 76mm x 30mm
Weight			425g	
Connectors				SMA & 9 Pin D-type
Operating Temperature	-20°C	+80°C		Temperature measured at PA case
Storage Temperature	-40°C	+85°C		
Thermal Protection				Cut out operates at 85°C ±5°C
Open/Short Survivability				10:1 VSWR at all phase angles

Antares Defence Systems Ltd
Unit 5, Alton Road Industrial Estate, Alton Road
Ross-on-Wye, Herefordshire, HR9 5NB

+44 (0)1989 760 590
sales@antaresdefencesystems.com
www.antaresdefencesystems.com

Date: 12/2023
Revision: v3





VM3F 9 Pin D-Type Connector

PIN	DESCRIPTION	SPECIFICATION
4	Standard Shutdown	Enable “low” (GND) Disable “High” (2.5 to 3.3V) or Disconnected (floating)
5	Enhanced Mute (Sargas 2)	Disable “low” (GND) Enable “High” (2.5 to 3.3V) or Disconnected (floating)
6,7	VDD	+28V DC
8,9	GND	Ground