

PA019020-40 High Power Amplifier

10 Watts from 1930 to 1990MHz

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DESCRIPTION

The PA019020-40 is a Narrow band high power amplifier and is ideal for use as output amplifier in a wireless transmit system. It provides 10W of PSAT power from 1930 MHz to 1990 MHz. It has a monitor TTL detect pin (DET) which is low (0V) when the output power is less than 22 dBm and high (+5V) for output power of over 23 dBm.

FEATURES

- ❑ PSAT > 40 dBm from 1930 to 1990 MHz
- ❑ 10 dB flat gain
- ❑ Operates from single +28V supply
- ❑ Unconditionally stable
- ❑ Provides TTL output power detect pin
- ❑ Packaging – Hermetic / Non-Hermetic

SPECIFICATIONS

Absolute Maximum Ratings¹

PARAMETER	SYMBOL	MIN	MAX	UNITS
Operating Temperature – Case	T_{MO}	-55	+85	°C
Storage Temperature – Case	T_{MS}	-55	+125	°C
Positive Supply Voltage	V_{+SS}	+27.5	+30	V

1. Stresses above those listed under "Absolute Maximums Rating" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

Nominal Operating Conditions

PARAMETER	CONDITIONS	MIN	MAX	UNITS
Temperature, T_O	Full Range	-55	+60	°C
Positive Supply Voltage, V_{PS}		+27.5	+30	V

SPECIFICATIONS

Electrical Characteristics

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
Frequency Range		1930	-	1990	MHz
Power Output	PSAT	-	+40	-	dBm
Gain		-	10	-	dB
Gain Flatness		-0.5	-	+0.5	dB
RF Input Impedance	Reference to 50 ohms	-	2.0:1	-	
RF Output Impedance	Reference to 50 ohms	-	1.3:1	-	
Fault Monitor Output (DET pin)					
TTL "0"	J2 < +22dBm	-	-	-	-
TTL "1" (5V)	J2 ≥ +23dBm	-	-	-	-
Supply Voltage		+27.5	28	+30	V
Supply Current		-	-	1.3	A

S-PARAMETERS



