Stealth Microwave
INCORPORATED

Model SM2023-41

2000-2300 MHz
12 Watt Linear Power Amplifier
FOR UMTS APPLICATIONS

The **SM2023-41** is a 2.0 to 2.3 GHz solid state GaAs amplifier designed for the Universal Mobile Telecommunication Systems (UMTS) market. The amplifier provides 55 dB of Linear Gain with a Gain Flatness of ± 0.5 dB, +41 dBm of Output Power at P1dB, and an OIP3 of +51 dBm. By using the latest surface mount technologies, this small amplifier can easily fit into tightly packed transmitters and repeaters. The unit is available in modular form (standard), or as a rack mountable amplifier.

Features

- Single Power Supply
- Over/Reverse Voltage Protection
- Thermal Protection with Auto Reset
- Temperature Compensation
- Integral Output Isolator

Options

- Forward/Reverse Power Detection
- RF Sampling
- Logic On/Off Control
- Integral Heatsink

Parameter	Specification
Frequency Range	2.0 – 2.3 GHz (100 MHz bands)
Pout (P1dB)	+ 41 dBm (min.)
Third Order Intercept Point	+ 51 dBm
Linear Gain	55 dB ± 1 dB
Gain Flatness over Full Band	± .5 dB
Gain Change over Temperature	± .5 dB
Input/Output Return Loss	-16 dB / -18 dB
DC Input Voltage	+ 12 Volts
DC Input Current, typ.	4.5 Amps
Level Control (Optional)	20 dB (min.)
Mechanical Dimensions	7.5 x 5.0 x 3.3 inches
RF Connectors	SMA Female
Operating Temperature	0ºC to +55ºC
Operating Humidity	95% Non-condensing
Operating Altitude	Up to 10,000 feet above Sea Level

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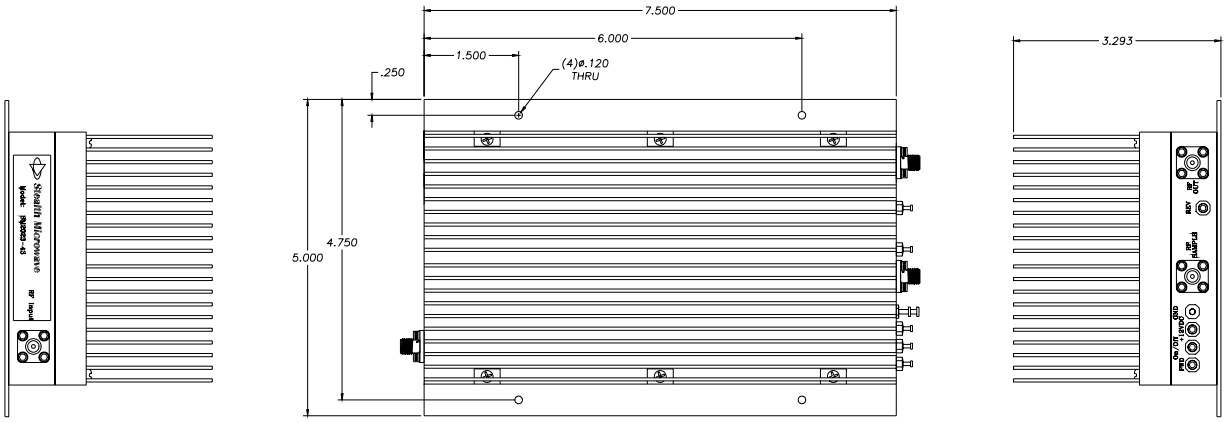
DIMENSIONS IN INCHES



Pin	Description	Values
RF Input	Input Connector (SMA Female)	-13 dBm, typical
RF OUT	Output Connector (SMA Female)	+ 41 dBm @ P1dB
RF SAMPLE	Sample RF Port (SMA Female)	30 dBr
GND	Ground Turret	---
REV	Reverse Power Detector	∞ VSWR @ + 38 dBm ≈ + 2.5 Volts
FWD	Forward Power Detector	+ 38 dBm Output Power ≈ + 2.5 Volts
+12VDC	DC Input Voltage	+ 12 Volts @ 4.5 Amps (typ.)
On/Off	TTL Logic On/Off	0 Volts = Off, + 5 Volts = On

Specifications subject to change without notice.

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