

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  $\pm 0.5$  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

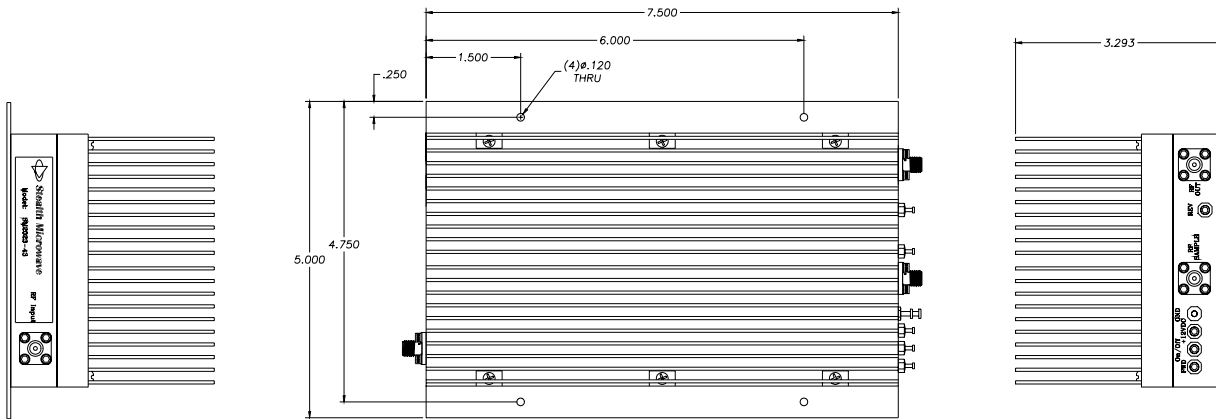
- Single Power Supply
- Over/Reverse Voltage Protection
- Thermal Protection with Auto Reset
- Temperature Compensation
- Integral Output Isolator

### 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 $\pm$ 1 dB
Gain Flatness over Full Band	$\pm .5$ dB
Gain Change over Temperature	$\pm .5$ 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	0°C to +55°C
Operating Humidity	95% Non-condensing
Operating Altitude	Up to 10,000 feet above Sea Level

**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 dB
GND	Ground Turret	---
REV	Reverse Power Detector	$\infty$ VSWR @ + 38 dBm $\approx$ + 2.5 Volts
FWD	Forward Power Detector	+ 38 dBm Output Power $\approx$ + 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.*