

Power Detector

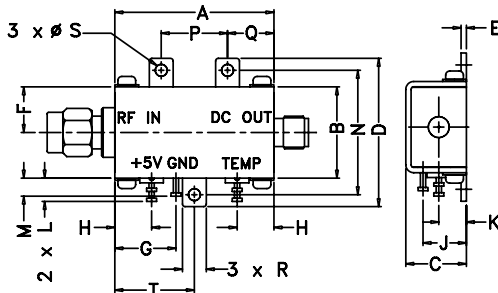
ZX47-60+

50Ω, - 60dBm to +5dBm, 10 - 8000 MHz

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
DC Power:	
Max. voltage	5.7V
Max. current	120mA
Internal Power Dissipation	0.73W
Input Power	+15dBm

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K
1.20	.69	.46	1.12	.04	.34	.46	.28	.33	.21
30.5	17.5	11.6	28.4	1.0	8.7	11.7	7.1	8.3	5.3

L	M	N	P	Q	R	S	T	wt.
.18	.14	.94	.50	.35	.18	.09	.60	grams
4.5	3.5	23.8	12.7	8.9	4.6	2.3	15.2	31.8

Features

- High Dynamic Range
- Wide Bandwidth
- Single Supply Voltage: +5V
- Stability Over Temperature
- Built-in Temperature Sensor
- Protected by US patent 6,790,049



CASE STYLE: HN1173

Applications

- RF/IF Power Measurements
- Low Cost Power Monitoring System
- RF Leakage Monitors
- Fast feedback Levelling Circuits
- RF Power Control
- Receiver RF/IF Gain Control
- RSSI measurements

Connectors	Model	Price	Qty.
SMA	ZX47-60-S+	\$89.95 ea.	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

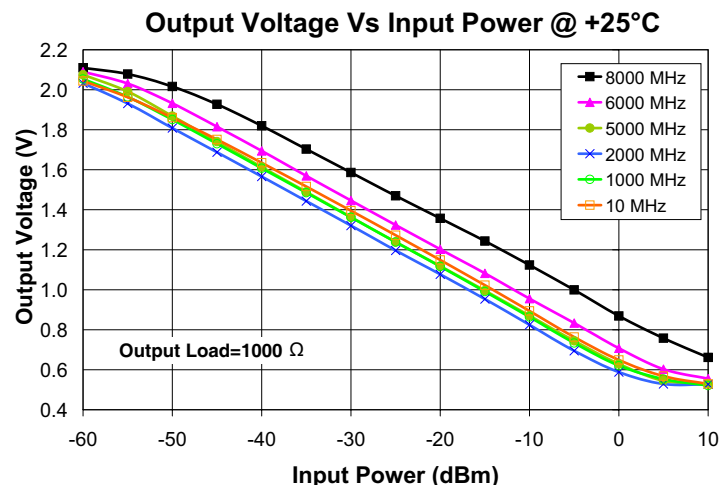
The +suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications (T_{AMB} = 25°C)

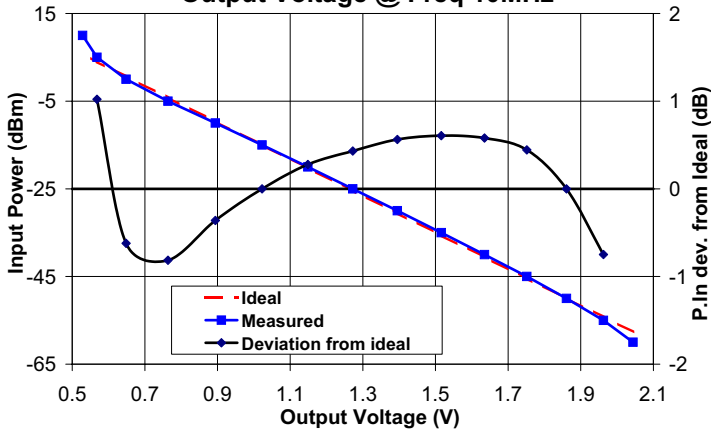
FREQ. (MHz)	DYNAMIC RANGE @ ± 1 dB ERROR (dBm) Typ.	OUTPUT VOLTAGE RANGE (V) Typ.	SLOPE (note 1) (mV/dB) Typ.	VSWR Typ.	PULSE RESPONSE TIME Rise (nsec) Fall (nsec) Typ.	TEMPERATURE SENSOR OUTPUT SLOPE (note 2) (mV/°C) Typ.	DC OPERATING POWER (note 3) Vcc (volts) Current (mA) Min. Typ. Max. Typ.			
Min.	Max.									
10	1000	-55 to 0		1.1						
1000	5000	-60 to -5		1.8						
5000	6000	-55 to +5	0.50 - 2.10	1.7	400	10	2.00	4.5	5.0	5.5
6000	8000	-50 to +5		1.4						100

Notes:

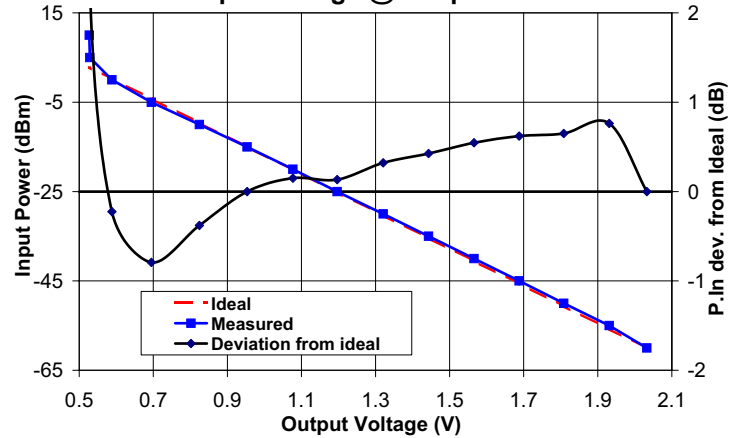
1. The negative slope indicates that Output Voltage decreases as Input Power increases. See "Output Voltage vs Input Power" graph below.
2. Temperature sensor output (TEMP pin on Outline Drawing) provides a DC Output Voltage which increases linearly with temperature rise. Recommended minimum load for this port is 2 kΩ.
3. Recommended minimum load at DC out port is 100 Ω. See maximum ratings for no damage.



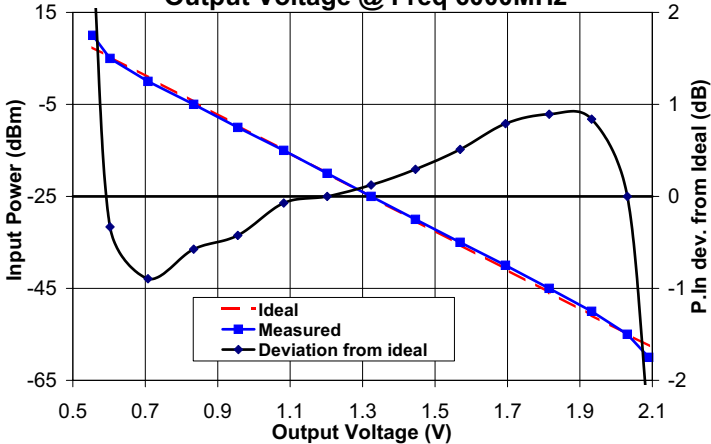
Power Input Deviation from Ideal Vs
Output Voltage @ Freq 10MHz



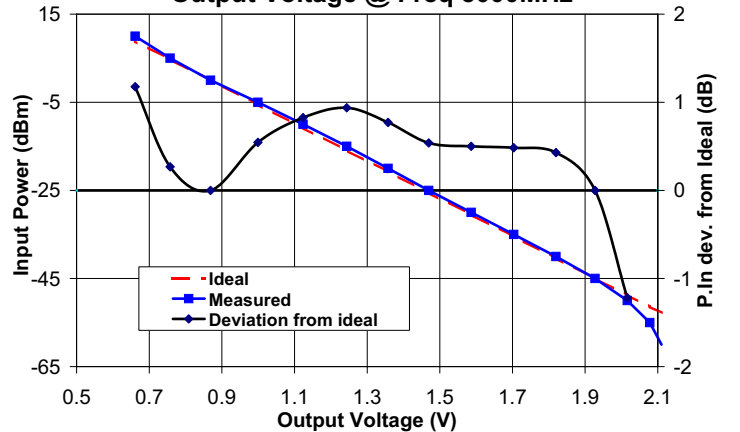
Power Input Deviation from Ideal Vs
Output Voltage @ Freq 2000MHz



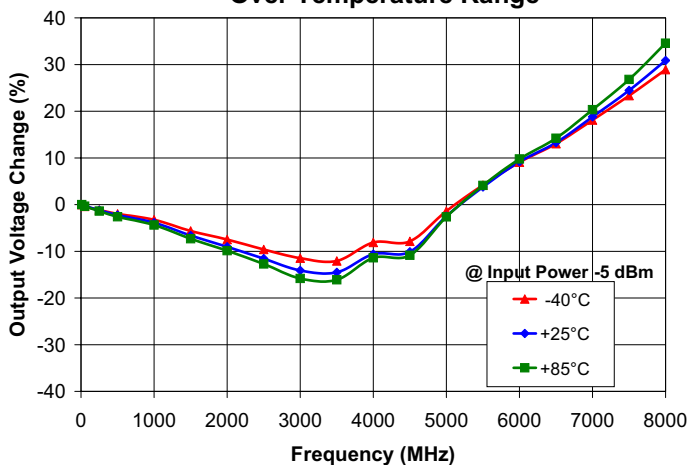
Power Input Deviation from Ideal Vs
Output Voltage @ Freq 6000MHz



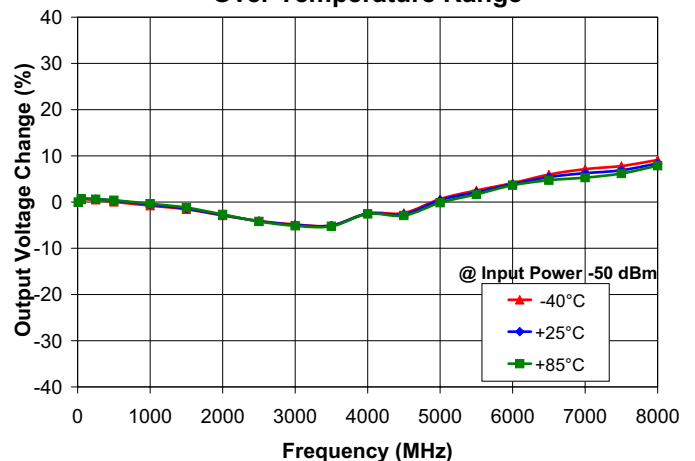
Power Input Deviation from Ideal Vs
Output Voltage @ Freq 8000MHz



Output Voltage Change Vs Freq
Over Temperature Range



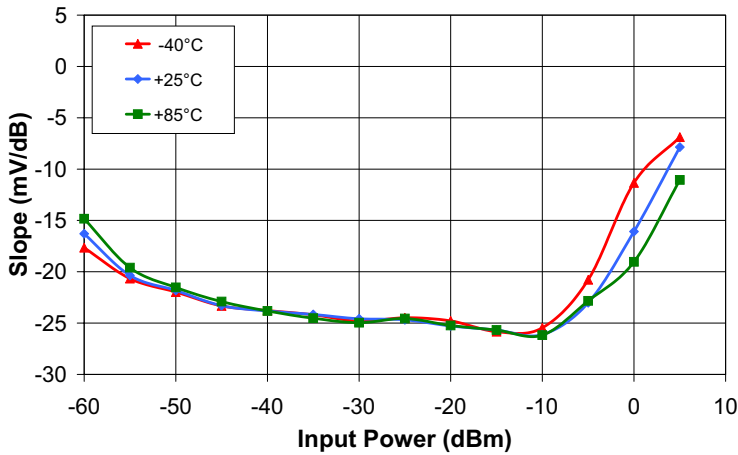
Output Voltage Change Vs Freq
Over Temperature Range



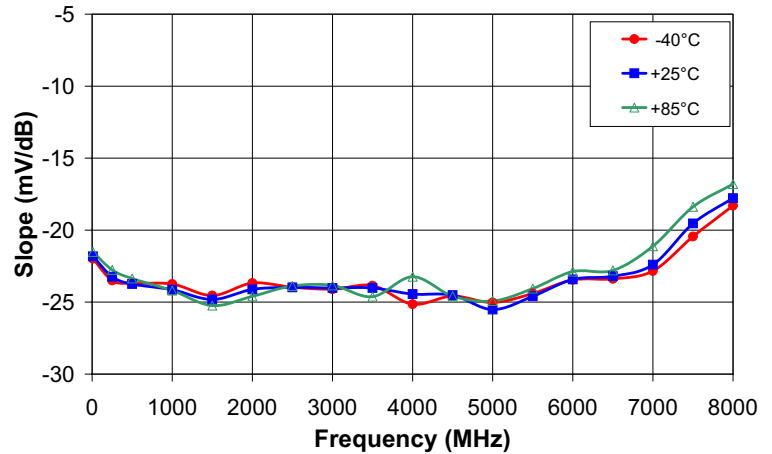
Performance Curves

ZX47-60+

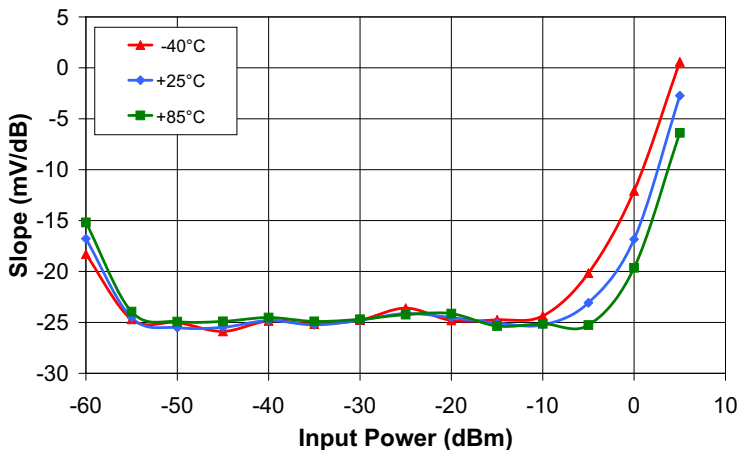
Slope Vs Input Power Over Temperature Range @ Freq 10MHz



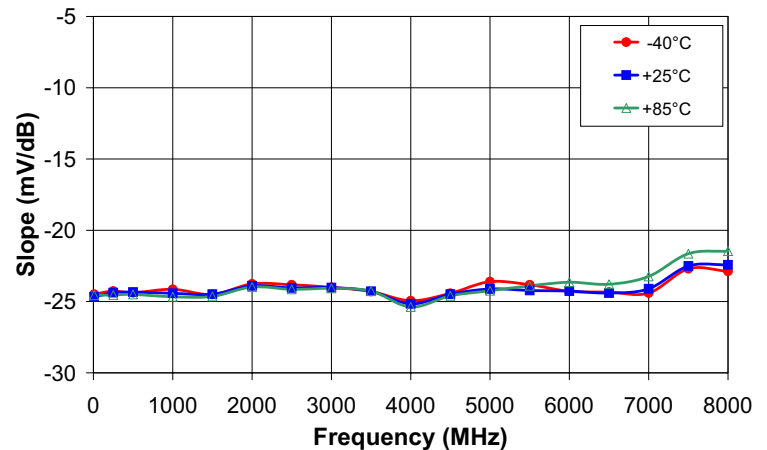
Slope Vs Freq Over Temperature Range @ Input Power -50dBm



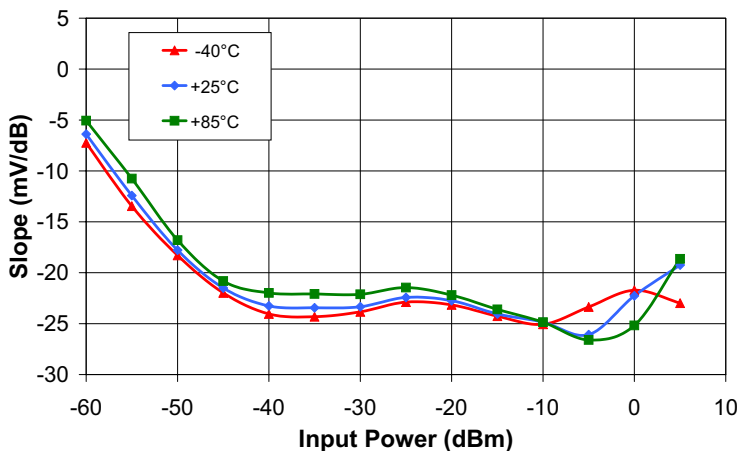
Slope Vs Input Power Over Temperature Range @ Freq 5000MHz



Slope Vs Freq Over Temperature Range @ Input Power -25dBm



Slope Vs Input Power Over Temperature Range @ Freq 8000MHz



Slope Vs Freq Over Temperature Range @ Input Power -5dBm

