

Features

- Gain: 35dB Typical
- P1dB Output Power: 29dBm Typical
- Supply Voltage: +24V @ 700mA
- 50 Ohm Matched Input / Output


Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	20		30	30		40	40		47	GHz
Gain	30	43	52	30	35	45	28	33	45	dB
Gain Flatness		±8.0			±2.5			±2.0		dB
Gain Variation Over Temperature (-40°C~+85°C)		±3.0			±3.0			±3.0		dB
Input VSWR		1.6			1.8			1.8		:1
Output 1dB Compression Point (P1dB)	25	29		27	28		24	25		dBm
Saturated Output Power (Psat)	26.5	29		27	29		24	26		dBm
Supply Current (I _{dd}) @+24V		700	1200		700	1200		700	1200	mA
Fan Supply Current (I _{dd}) @+24V		400			400			400		mA
Power Added Efficiency		5			5			5		%
Isolation S12		-60			-55			-55		dB

Weight	Net	10.85 Max. ounces	Impedance	50ohms
	Including Heat Sink	58 Max. ounces		
Input / Output Connectors	2.4mm-Female (2.92mm female optional)		Material	Copper
Finish	Nickel Plated	Package Sealing	Epoxy Sealed (Standard)	
			Hermetically Sealed (Option with extra charge)	

SALUKI TECHNOLOGY INC.

Wide Band Power Amplifier 20GHz~47GHz

Absolute Maximum Ratings

Operating Voltage	+28V
RF Input Power (RFIN)	0dBm

Biassing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +24V biasing

Power OFF Procedure

Step 1	Turn off +24V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

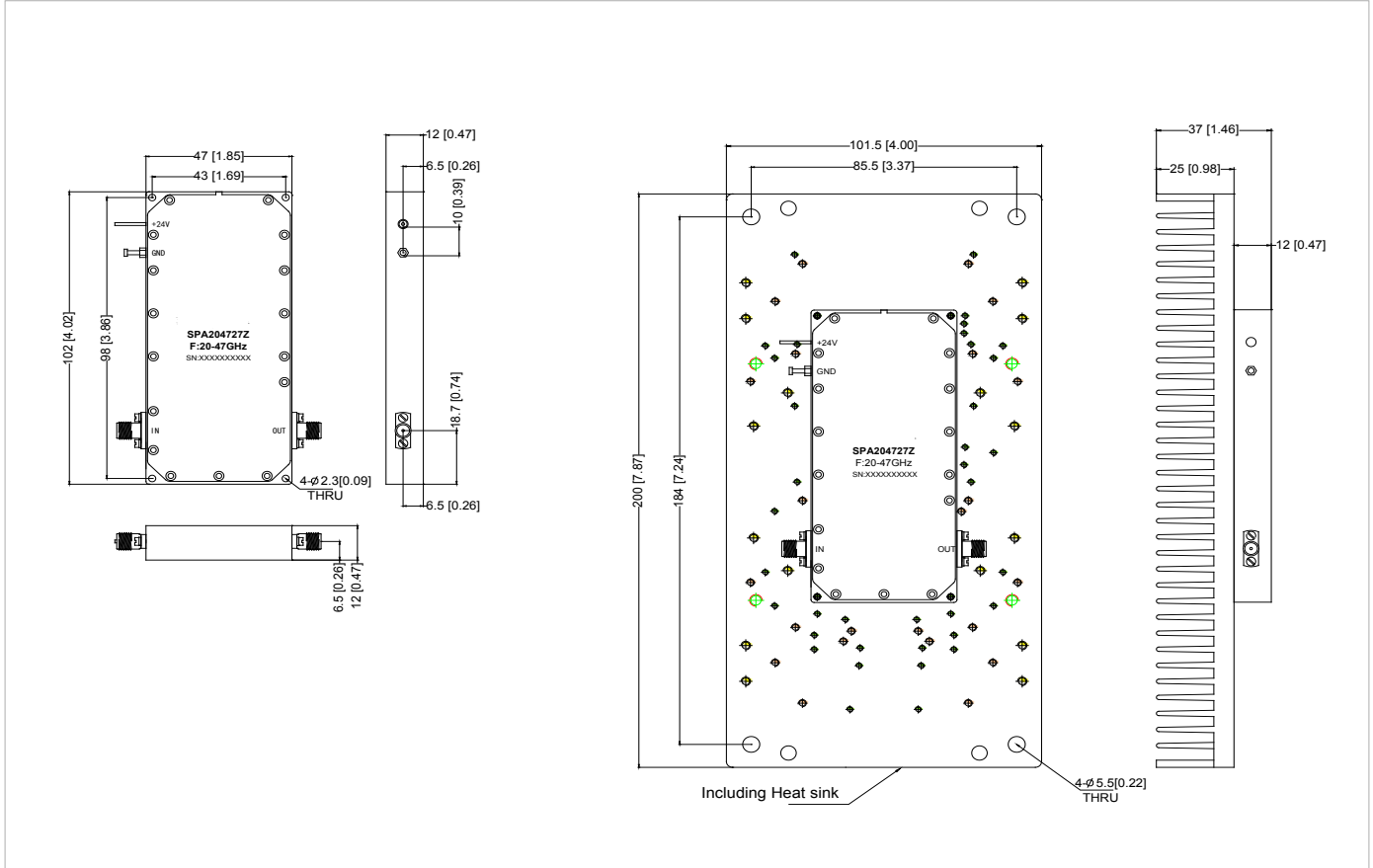
Environmental Specifications

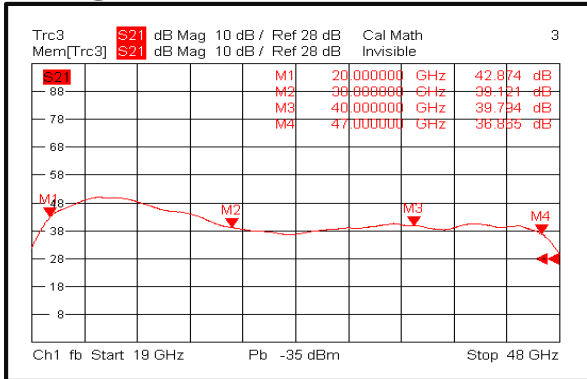
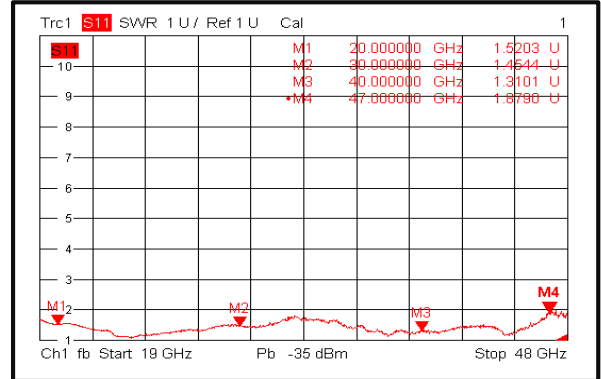
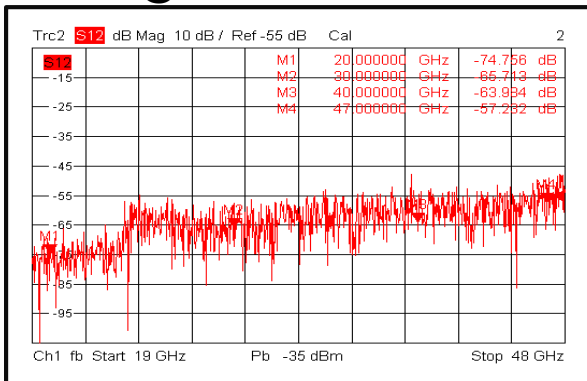
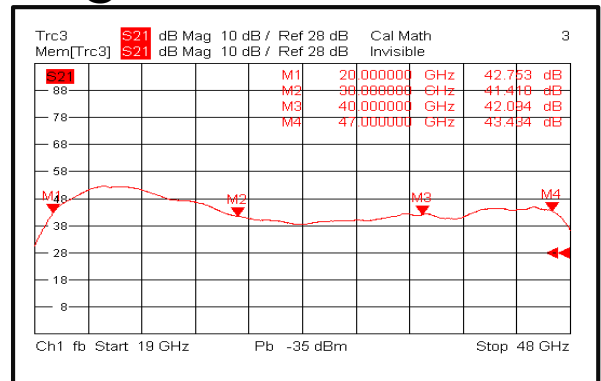
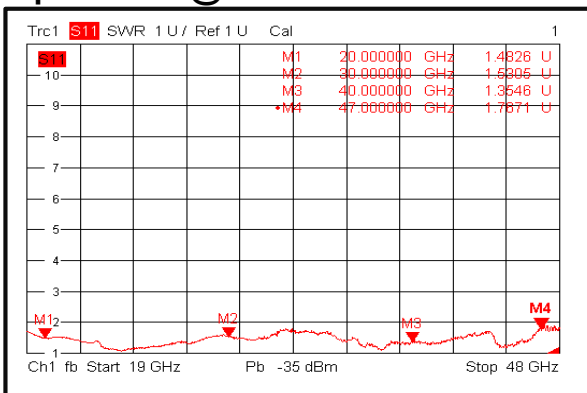
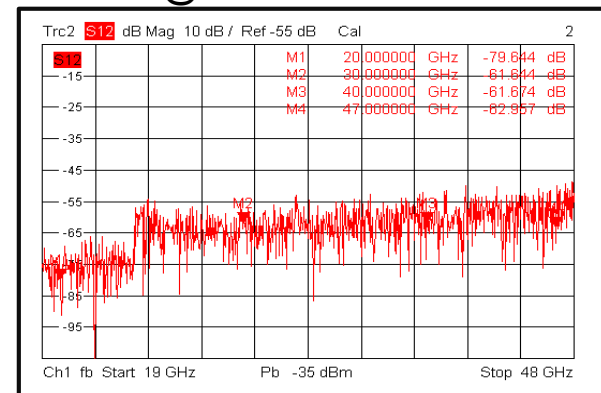
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions

Outline Drawing:

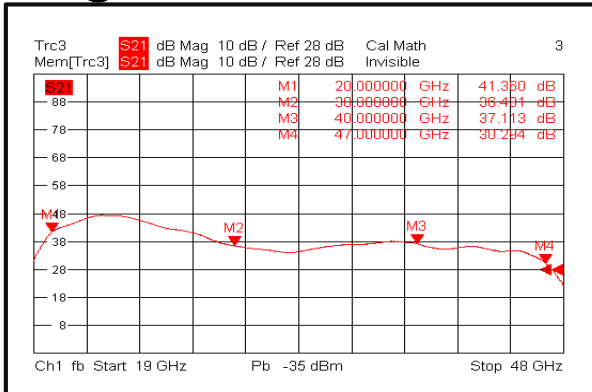
All Dimensions in mm (inches)
Housing Tolerances ±0.2(0.008)

Heat Sink required during operation(Sold Separately)

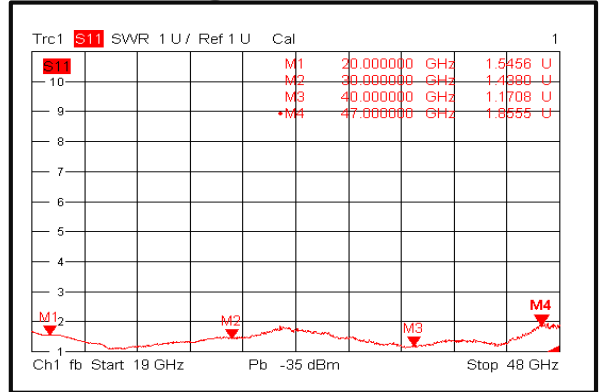


Gain@+25°C

Input VSWR@+25°C

Isolation@+25°C

Gain@-40°C

Input VSWR@-40°C

Isolation @-40°C


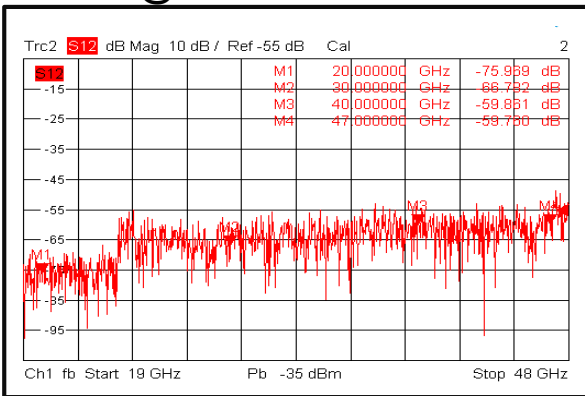
Gain@+85°C



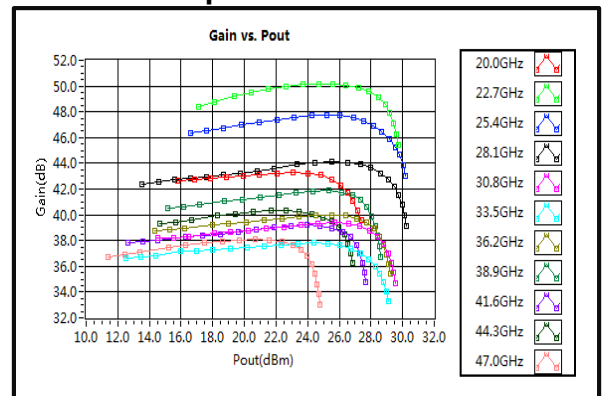
Input VSWR@+85°C



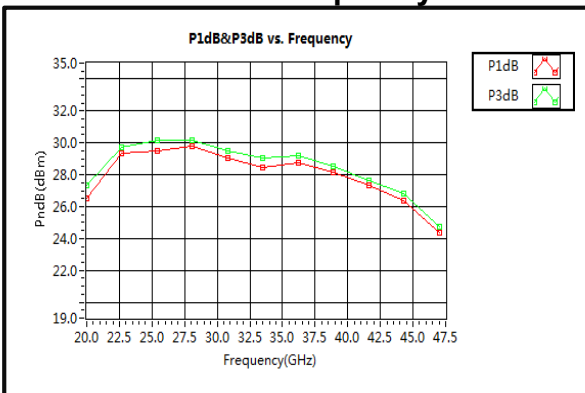
Isolation@+85°C



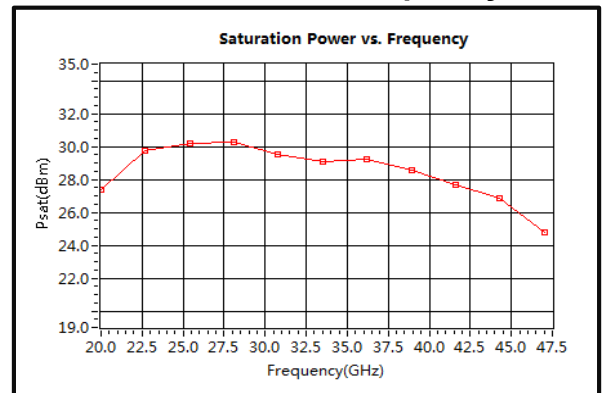
Gain vs. Output Power



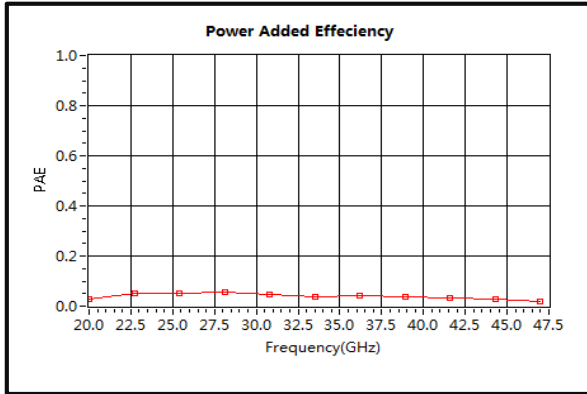
P1dB & P3dB vs. Frequency



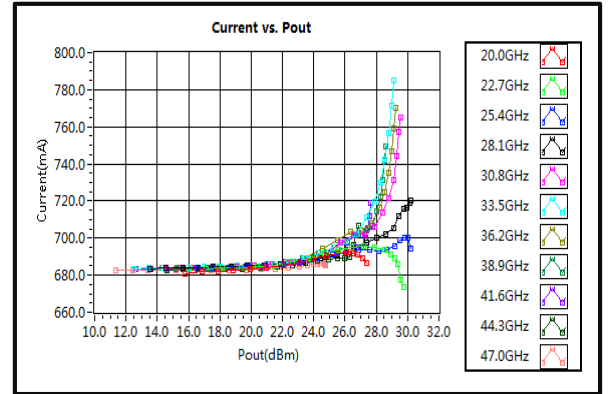
Saturation Power vs. Frequency



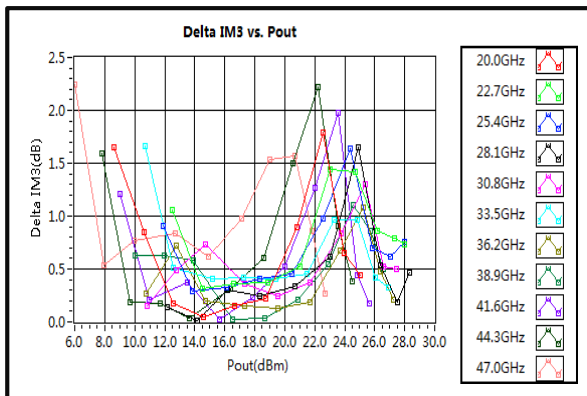
Power Added Efficiency



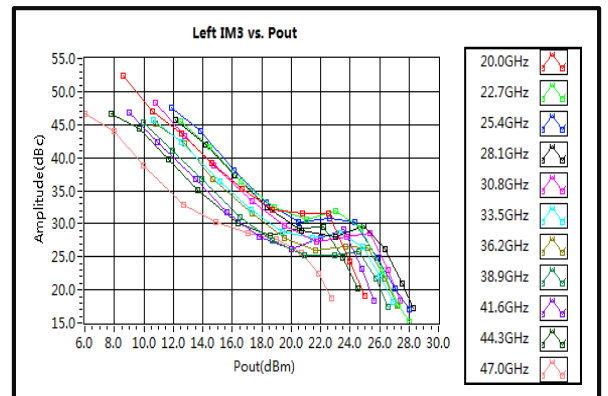
Current vs. Pout



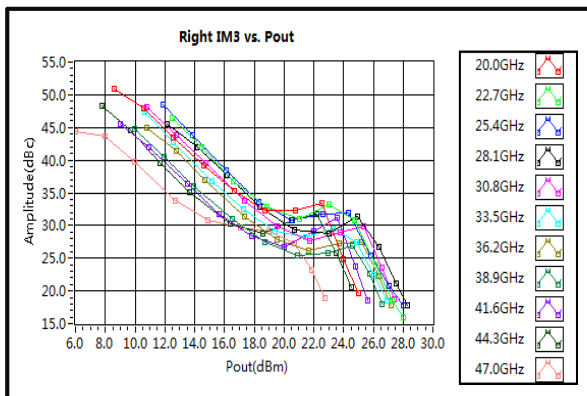
Delta IM3 vs. Pout



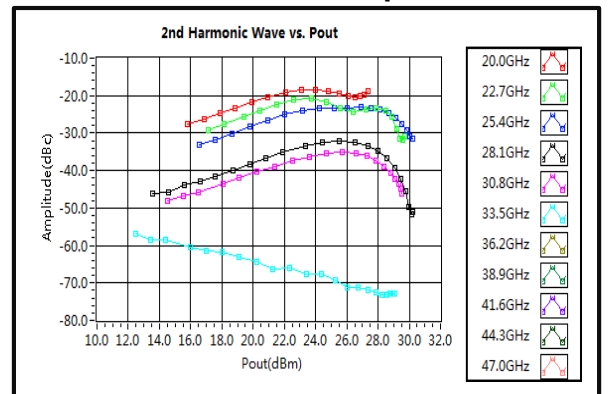
Left IM3 vs. Pout

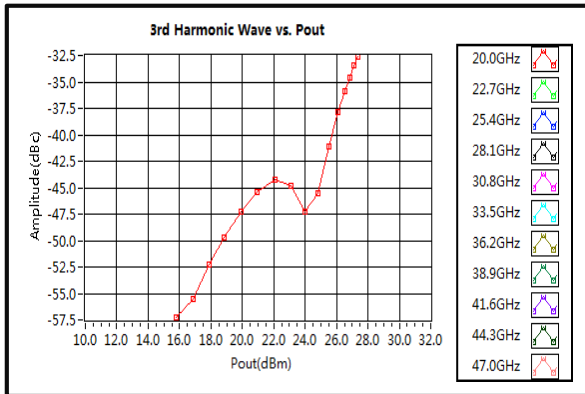


Right IM3 vs. Pout



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power


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