

# NW6418-28

6 – 18GHz (CW)

Broadband TWTA Exciter

## General Description

The NW6418-28 is an example for NANOWAVE's very broadband and highly linear solid-state power amplifier modules used as TWTA Exciter.

The module offers 3 highly linear driver outputs, 2 of these are amplitude and phase matched. Each is equipped with high precision step attenuators.



Fig. 1: Photo of TWTA Exciter module

- Built-in 3-bit Step Attenuator
- Built-in 60 dB Isolation Switch
- Built-in 180 deg switchable Phase Shifter
- Built-in multi temperature compensated Wideband Power Detectors
- Built-in Octal 8-bit DAC
- Built-in SP3T Switch for High-Speed Signal Routing

## Electrical Parameters

Parameter	Unit	Min	Typ	Max	Remarks
Frequency Range	GHz	6.4		18.0	
Output Power	dBm	+29.0			@ P1dB
Output Power Ripple	dB			± 0.5	Over any 1 GHz band
Gain	dB	40.0			
Gain Flatness	dB			± 1.25	peak-to-peak @ 3 ports
Gain Linearity	dB			0.5	
Noise Figure	dB			4.5	
Harmonics Level	2 <sup>nd</sup> dBc		-25.0		1)
Input / Output Return Loss	dB			-10.0	
Isolation between Output Ports	dB	-60.0			

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Parameter	Unit	Min	Typ	Max	Remarks
Supply Voltage	V		+9/+7/-12		
Supply Current	A			4.1/1.5/0.5	

**Notes:**

- 1) DACs set to minimum attenuation level

## Mechanical and Environmental Parameters

Parameter	Unit	Min	Typ	Max	Remarks
Operating Temperature Range	°C	-25.0		+75.0	
RF Input and Output Connectors			SMA-f		
Size					
length:	inch		9.23		
width:	inch		2.5		
height:	inch		0.9		

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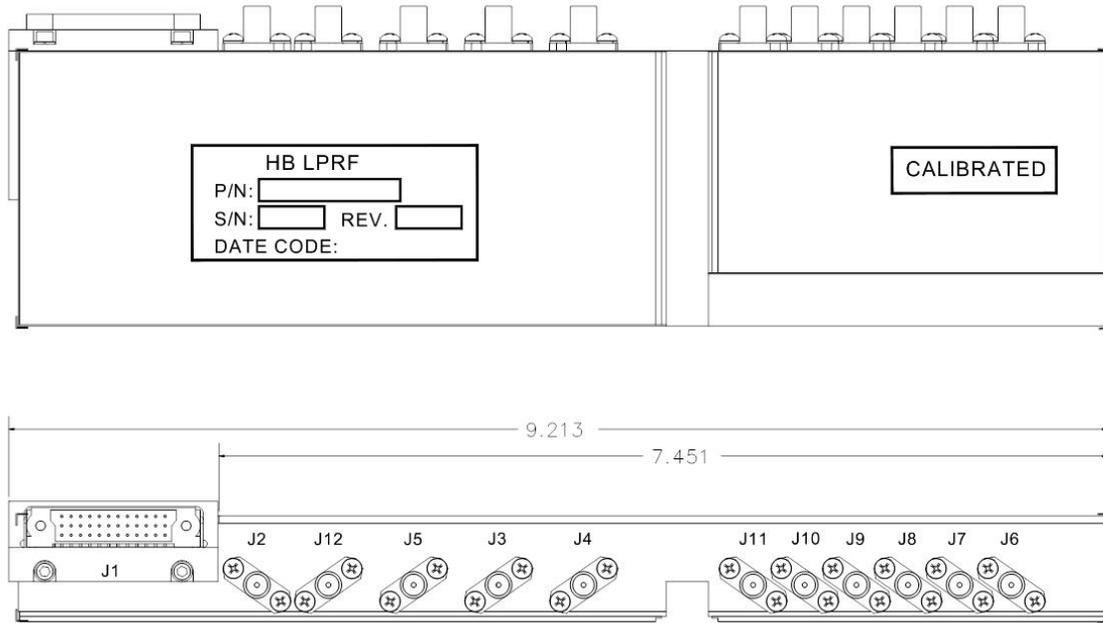
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## Outline Drawing



**Fig 2: Outline Drawing of TWTA Exciter Module**

## Additional features:

- All Plating and Panting materials are RoHS compliant.
- Marking: the unit is marked with manufacturer part no., date code, and Serial Number

All specifications are subject to change without notice.

For further information please contact NANOWAVE Technologies Inc. at [sales@nanowavetech.com](mailto:sales@nanowavetech.com), or call at (+1) 416-252-5602.

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