6 to 18 GHz TWTA Exciter

MODEL NW6418-28

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^{nd}	dBc		-25.0		1)

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Parameter	Unit	Min	Typ	Max	Remarks
Input / Output Return Loss	dB			-10.0	
Isolation between Output Ports	dB	-60.0			
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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Outline Drawing

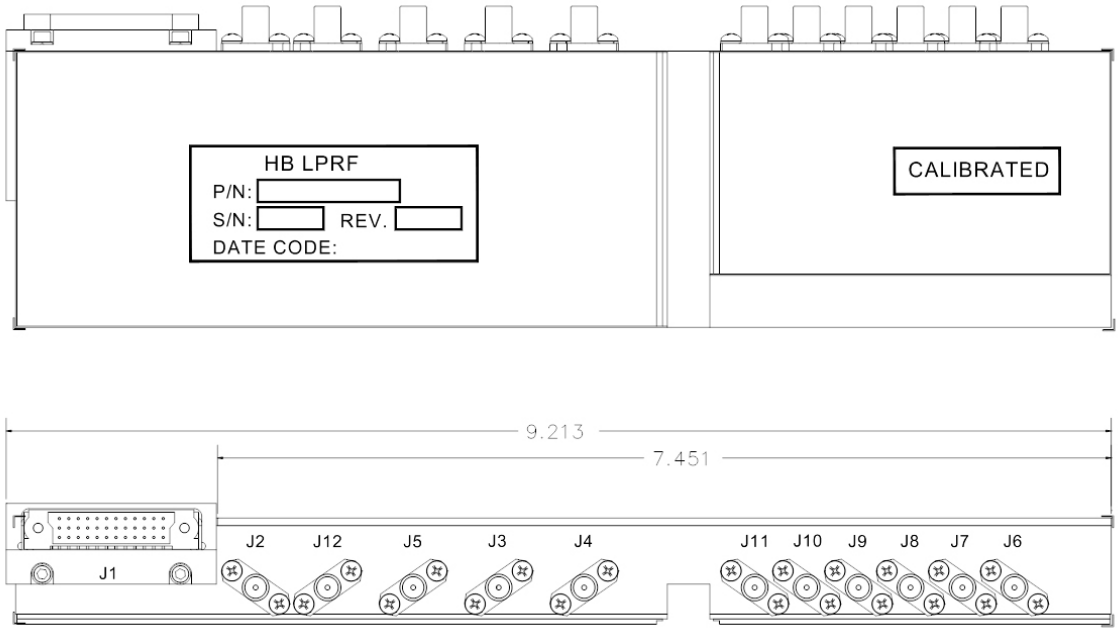

Fig 1: Outline Drawing of TWTA Exciter Module

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, or call at (+1) 416-252-5602.

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