

# HFS-12000-XA

PRODUCT RELEASE

Broadband, Surface-Mount Synthesizer

7000 to 12000 MHz

## FEATURES

- Broadband, Surface-Mount Design (7 to 12 GHz)
- Low Phase Noise (<-90 dBc/Hz @ 100 KHz)
- Fast Switching (<750  $\mu$ Sec, Band-Edge to Band-Edge)



## SPECIFICATIONS

Frequency.....	7000-12000 MHz	Phase Noise (dBc/Hz)	7000 MHz	12000 MHz
Step Size .....	1 MHz or 10 MHz	1 KHz Offset .....	<-90	<-85
Switching Speed.....	<750 $\mu$ Sec, BE-to-BE	10 KHz Offset .....	<-95	<-90
External Reference.....	100 MHz, +3 dBm $\pm$ 3dB	100 KHz Offset .....	<-95	<-90
Power Output.....	+10 dBm $\pm$ 2 dB, 50 $\Omega$	1 MHz Offset.....	<-105	<-105
Harmonics .....	<-17 dBc			
Spurs .....	<-60 dBc			
Supply.....	+5 V / +12V			
Current.....	$\leq$ 200 mA			
Temperature Range (Operating).....	-30°C to +70°C			
	-40°C to +85°C (Optional)			
Programming .....	3-Wire, Serial			
Package Size.....	1.25" x 1" x 0.24"			

## OPTIONS

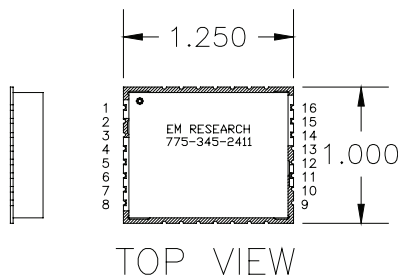
Designed for Vibe and Shock  
Configurable Designs Available

## APPLICATION

Down-Converter LO for RADAR Digital Signal Processor

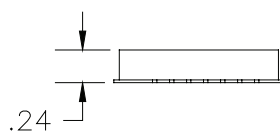
Note: All specifications are typical unless otherwise specified and subject to change without notice. Not all performance parameters are available in combination with certain specifications. E.G. Not all power output levels are available at all frequency ranges.

## PACKAGE OUTLINE



Notes:

1. Tape-and-Reel available for high volume quantities.
2. Demo Boards and Reference Modules available.
3. All dimensions are in inches unless otherwise specified.
4. Diagrams and pictures shown are examples only.



HFS-12000-XA\_Product Release, 6.10.16

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## PERFORMANCE PLOTS

Figure 1: Phase noise at 7000 MHz

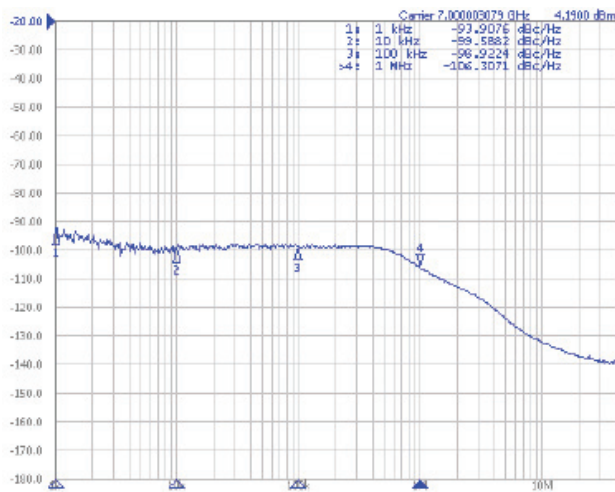


Figure 2: Phase noise at 12000 MHz

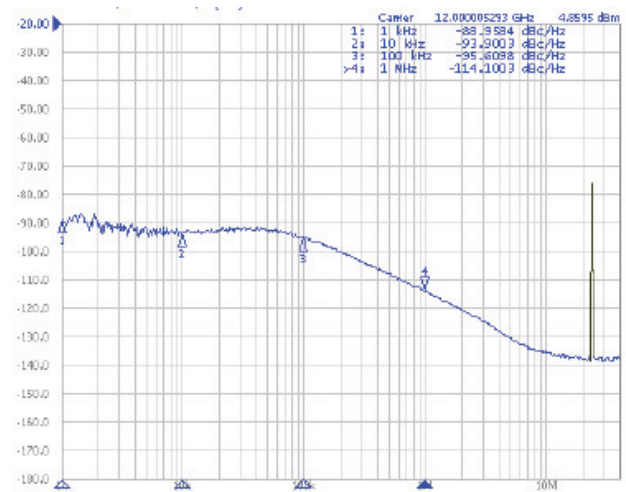


Figure 3: Switching speed, 7000 to 12000 MHz

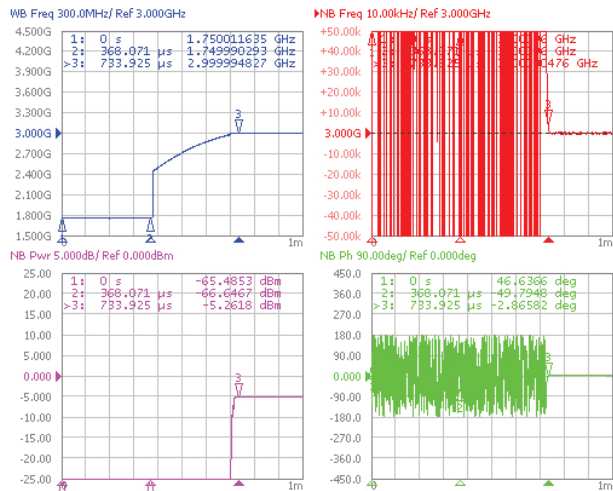


Figure 4: Switching speed, 12000 to 7000 MHz

