

ZFR-20000-XA

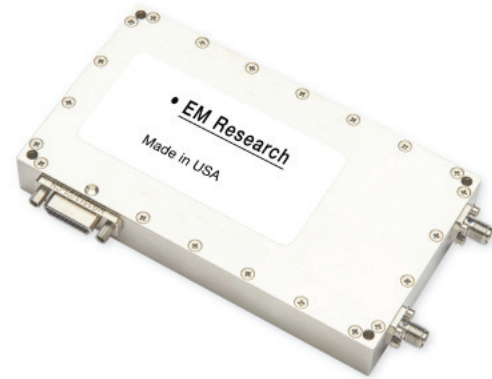
PRODUCT RELEASE

Broadband, High-Performance Synthesizer

4 to 20 GHz

FEATURES

- Broadband Design (4 to 20 GHz)
- Fast Switching (<100 μ Sec)
- Low Phase Noise (<-92 dBc/Hz @ 10 KHz, at 20 GHz)
- Low Spurs (<-60 dBc across entire range)
- Vibe Tolerant, Compact Package (4.5" x 2.5" x 0.6")



SPECIFICATIONS

Frequency.....	4000-20000 MHz
Step Size	10 MHz
Switching Speed.....	<100 μ Sec
External Reference.....	10 MHz
Power Output.....	+10 dBm \pm 3 dB
Harmonics	<-20 dBc
Spurs	<-65 dBc (4-10 GHz)
.....	<-60 dBc (10-20 GHz)
Supply.....	+5 V @ \leq 1500 mA
Temperature Range (Operating).....	-40°C to +85°C
Programming.....	Serial; Clock, Data, Enable
.....	(3.3V TTL Logic)
Connectors	21 Pin Micro-D (I/O),
.....	SMA (RF)
Package Size.....	4.5" x 2.5" x 0.6"

Phase Noise (dBc/Hz)	4-10 GHz	10-20 GHz
1 KHz Offset	<-89	<-88
10 KHz Offset	<-92	<-92
100 KHz Offset	<-89	<-89
1 MHz Offset.....	<-106	<-105

OPTIONS

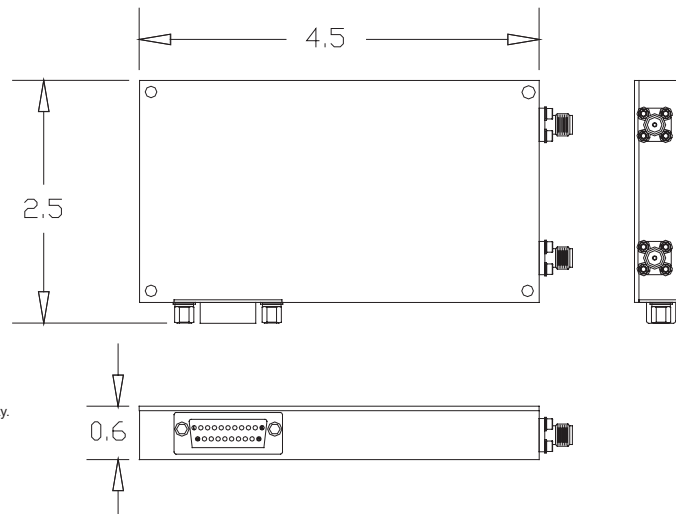
GPPO, SMA, K, or Pinned Connector Configurations Available
Configurable Designs Available

APPLICATION

Local Oscillator for Airborne Radar System

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. Includes removeable SMA connectors for drop-in, surface-mountability.
 2. Alternate connectors available: GPO, GPPO, K
 3. Demoboards and Reference Modules available.
 4. All dimensions are in inches unless otherwise specified.
 4. Diagrams and pictures shown are examples only.

ZFR-20000-XA_Product Release, 1.4.16

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PERFORMANCE PLOTS

Figure 1: Phase noise at 4 GHz at -40°C

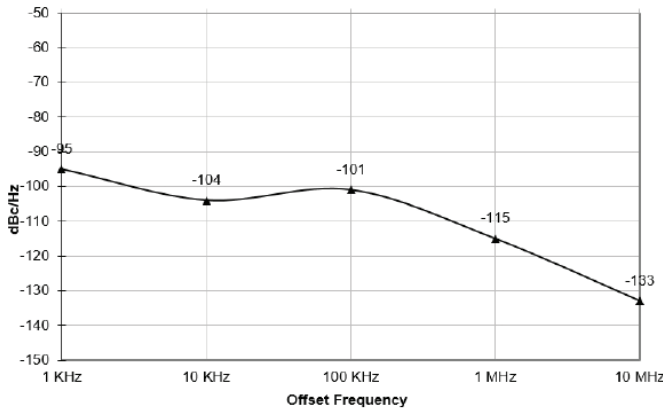


Figure 2: Phase noise at 4 GHz at +85°C

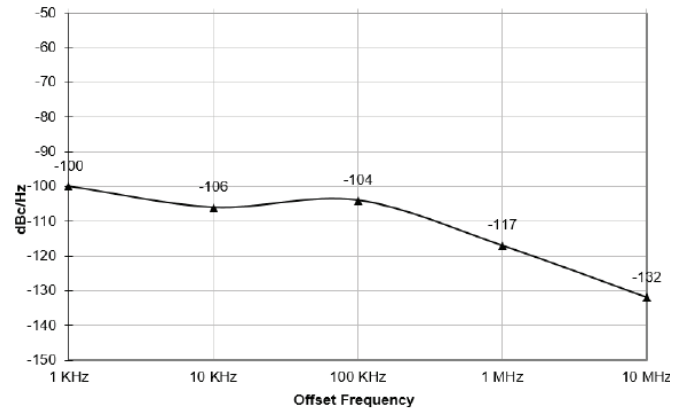


Figure 3: Phase noise at 10 GHz at -40°C

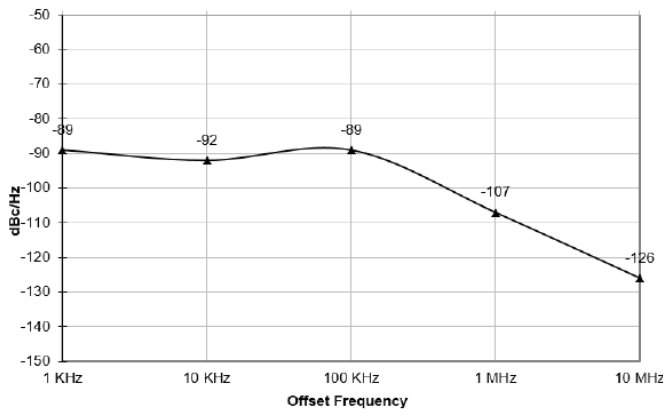


Figure 4: Phase noise at 10 GHz at +85°C

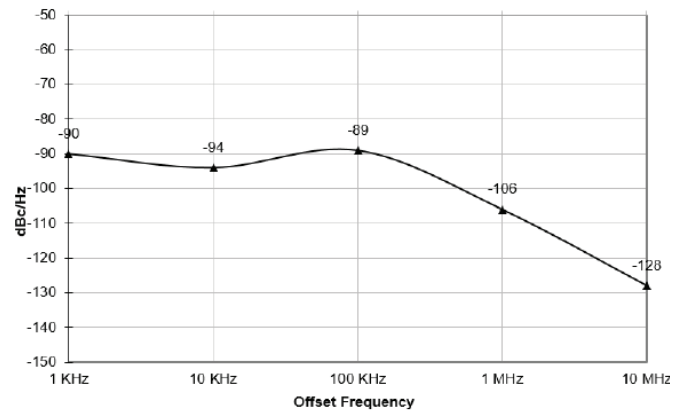


Figure 5: Phase noise at 20 GHz at -40°C

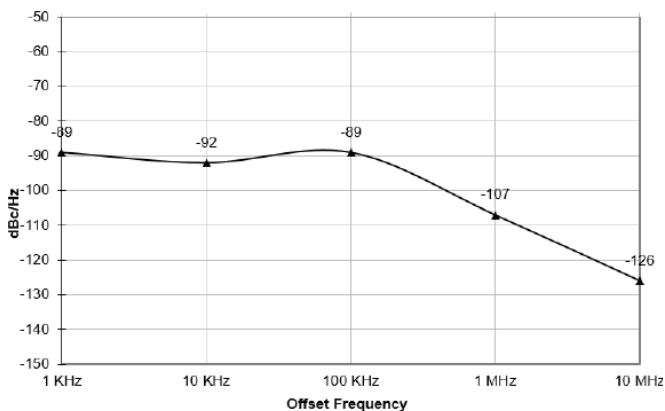


Figure 6: Phase noise at 20 GHz at +85°C

