

Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[Microchip Technology](#)
[MX575ABA150M000](#)

For any questions, you can email us directly:

sales@integrated-circuit.com



MX575ABA150M000

Ultra-low Jitter 150MHz LVPECL XO

ClockWorks™ FUSION

General Description

The MX575ABA150M000 is an ultra-low phase jitter XO with LVPECL output optimized for high line rate applications.

Applications

- SAS
- Storage

Features

- 150MHz LVPECL
- Typical phase noise:
- 98fs (Integration range: 1.875MHz-20MHz)
- ±50ppm total frequency stability
- -40°C to +85°C temperature range
- Industry standard 6-Pin 7mm x 5mm LGA package

Absolute Maximum Ratings

Supply Voltage (VIN).....+3.6V
 Lead Temperature (soldering, 10s).....260°C
 Storage Temperature (T_g).....125°C
 ESD Rating (HBM).....2kV

Operating Ratings

Supply Voltage (VIN).....+2.375V to +3.63V
 Ambient Temperature (TA).....-40°C to +85°C

Electrical Characteristics

VDD = 2.375 - 3.63V, TA = -40°C to +85°C, outputs terminated with 50 Ohms to VDD - 2V.¹

Symbol	Parameter	Condition	Min.	Typ.	Max.	Units
IDD	Supply Current				120	mA
F0	Center Frequency			150		MHz
	Frequency Stability	Note 2			±50	ppm
Øj	Phase Noise	Integration Range (12kHz to 20MHz) Integration Range (1.875MHz to 20MHz)		143 98		fsRMS
Tstart	Start-Up Time				20	ms
TR/TF	Rise/Fall time				300	ps
	Duty Cycle		45		55	%
VOH	Output High Voltage	LVPECL output levels	VDD - 1.35	VDD - 1.01	VDD - 0.8	V
VOL	Output Low Voltage	LVPECL output levels	VDD - 2.0	VDD - 1.78	VDD - 1.6	V
Vswing	Peak to Peak Output Voltage Swing		0.65	0.77	0.95	V

Notes:

1. Guaranteed after thermal equilibrium.
2. Inclusive of initial accuracy, temperature drift, aging, shock, vibration from -40°C to +85°C.

ClockWorks is a registered trademark of Micrel, Inc

Micrel Inc. • 2180 Fortune Drive • San Jose, CA 95131 • USA • tel +1 (408) 944-0800 • fax + 1 (408) 474-1000 • <http://www.micrel.com>

December 03, 2014
 MX575AB1-1489

Revision 1.0
tcghelp@micrel.com or (408) 955-1690

Micrel, Inc.

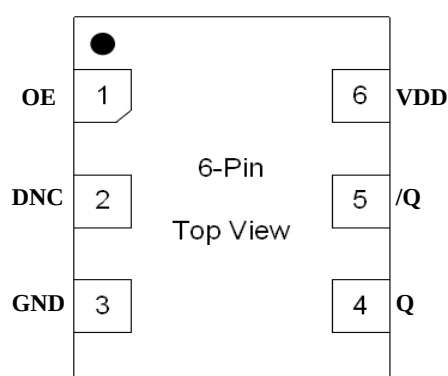
MX575ABA150M000

Ordering Information

Ordering Part Number	Marking Line 1	Marking Line 3	Shipping	Package
MX575ABA150M000	MX575AB	A150M000	Tube	6-Pin 7mm x 5mm LGA
MX575ABA150M000 TR	MX575AB	A150M000	Tape and Reel	6-Pin 7mm x 5mm LGA

Devices are Green and RoHS compliant. Sample material may have only a partial top mark.

Pin Configuration



Pin Description

Pin Number	Pin Name	Pin Type	Pin Level	Pin Function
1	OE	I, SE	LVC MOS	Output Enable, disables output to tri-state, 0 = Disabled, 1 = Enabled, 50k Ohms Pull-Up
2	DNC			Make no connection, leave floating.
3	GND	PWR		Power Supply Ground
4, 5	Q, /Q	O, Diff	LVPECL	Clock Output Frequency = 150MHz
6	VDD	PWR		Power Supply

Micrel, Inc.

MX575ABA150M000

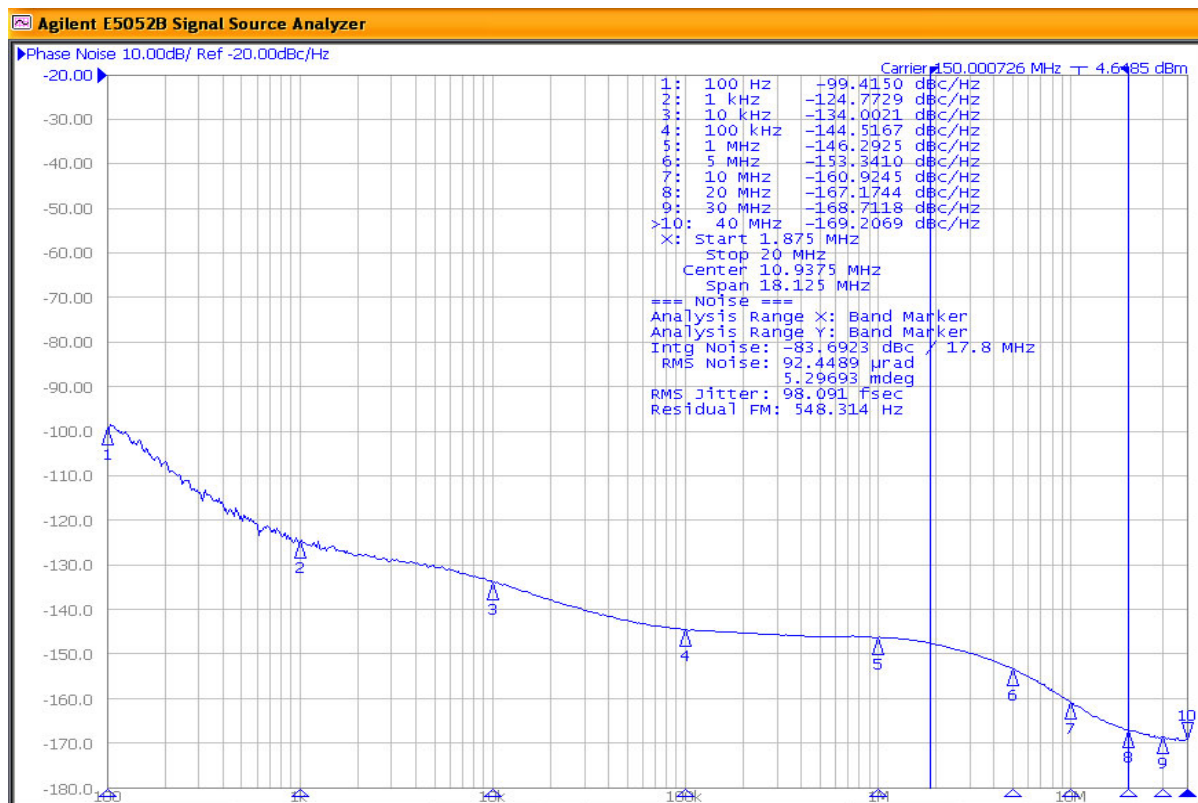


Figure 1. LVPECL Output 150MHz 1.875MHz-20MHz 98fs

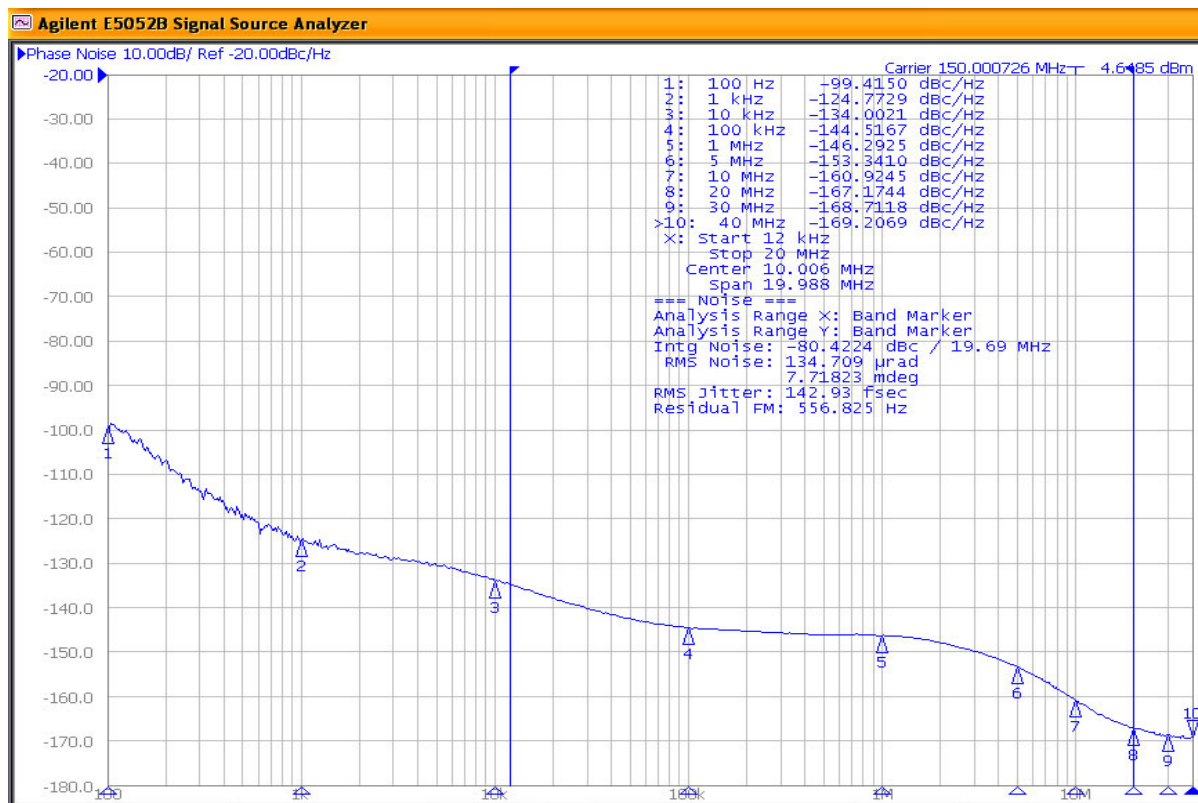
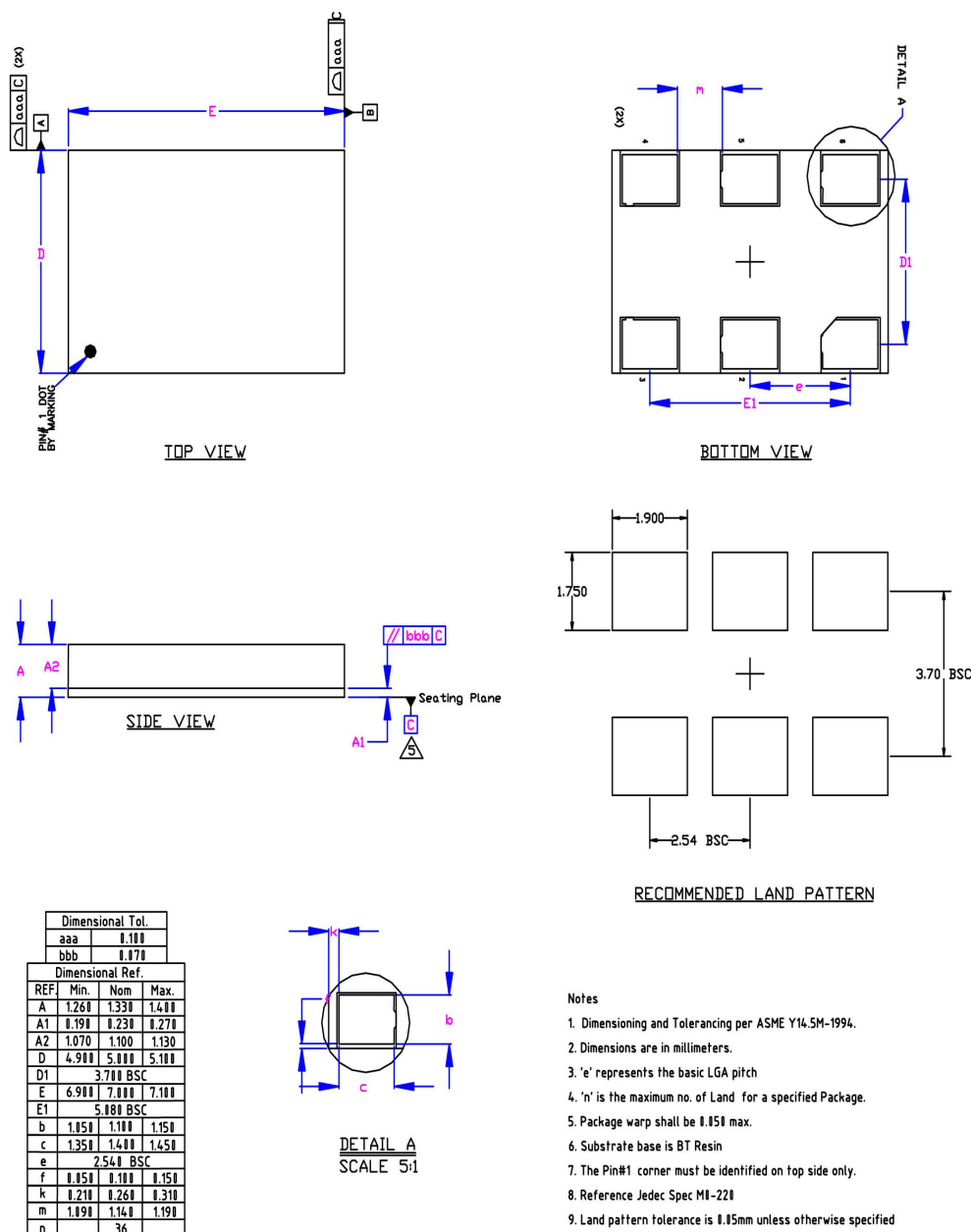


Figure 2. LVPECL Output 150MHz 12kHz-20MHz 143fs

Micrel, Inc.

MX575ABA150M000

Package Information and Recommended Land Pattern for 6-Pin LGA³



6-Pin LGA (7x5mm)

Note:

3. Package information is correct as of the publication date. For updates and most current information, go to www.micrel.com.

MICREL, INC. 2180 FORTUNE DRIVE SAN JOSE, CA 95131 USA

TEL +1 (408) 944-0800 FAX +1 (408) 474-1000 WEB <http://www.micrel.com>

Micrel makes no representations or warranties with respect to the accuracy or completeness of the information furnished in this data sheet. This information is not intended as a warranty and Micrel does not assume responsibility for its use. Micrel reserves the right to change circuitry, specifications and descriptions at any time without notice. No license, whether express, implied, arising by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Micrel's terms and conditions of sale for such products, Micrel assumes no liability whatsoever, and Micrel disclaims any express or implied warranty relating to the sale and/or use of Micrel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right.

© 2014 Micrel, Incorporated.