Agilent Technologies

Errata Notice

This document contains references to "Centellax." Please note that the test and measurement product portfolio once owned by Centellax, Inc. is now part of Agilent Technologies. For more information about these products and support, go to **www.agilent.com/find/bert-news**.

TG5P1A Quick Start Guide

Welcome to the Centellax TG5P1A 12.5Gb/s Remote TX Head Quick Start Guide. This guide will help you identify the contents of the shipping package, perform a quick functional check of the product, and guide you on where to find more information and support for the TG5P1A.

The TG5P1A is shipped in a protective box with all the accessories required for operation. The shipping box contains:

- TG5P1A Remote TX Head

- Accessory kit, which includes the following for each TG5P1A:
  - (Qty 2) SMA Cables
  - (Qty 1) 50Ω 18GHz 1W SMA Male Terminations

- TG5P1A Quick Start Guide (this document)

The TG5P1A is designed to be used with the PCB12500 Parallel Channel BERT. For more information on the operation and features of the TG5P1A please refer to the PCB12500 Users Guide on the product webpage http://www.centellax.com/products/testmeas/PCB12500.

Technical Support information: support@centellax.com

Centellax, Inc.
3843 Brickway Blvd.
Suite 100
Santa Rosa, CA 95403, USA

Unpacking

Carefully remove the TG5P1A from the case in an ESD-safe environment.

Important Notes

- Use ESD protection at all times when using the instrument
- Install the TG5P1A on a flat surface away from heat sources
- Use a 8 lbf-in (90 N-cm) torque wrench when attaching connectors

Installation

1 Plug the AC power cord into the PCB12500, rear panel power socket.

2 Plug the other end of the AC power cord into a suitable wall socket. (100-240V AC, 50/60Hz).

3 Connect the PCB12500 to a clock source and high speed sampling scope as shown in Figure 1.

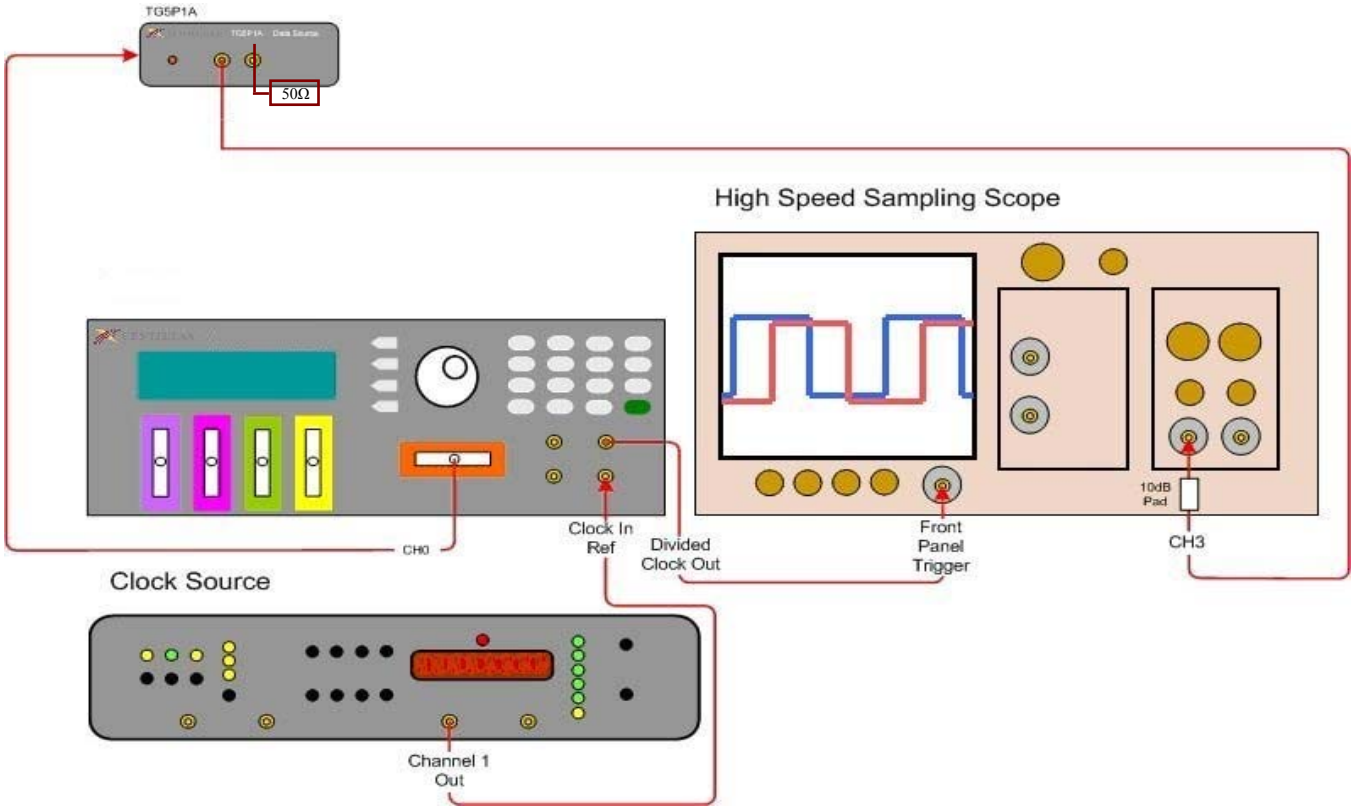

Figure 1. Installation setup

4 Connect the TG5P1A to the reference channel (Ch. 0).

5 Set up the clock source as follows: Frequency 10GHz, Output Level 0dBm

6 Set up the high speed sampling scope as follows: (Note: Agilent 86100C Infiniium DCA used in this example, other high speed scope setup option names may differ.)

Eye/Mask mode		
Trigger Level		0V
Timbase Scale		50ps/div
Channel 3 Setup	Attenuation	10dB
	Scale	200mV/div
	Offset	0V

7 On the keypad, press the number **0** to view the STAT (Status) menu settings for channel 0:

Pat Out:	OFF
Pat:	2^7-1
DatAmp:	+1.000 V
DatOf:	+0.000 V
DatTrm:	+0.000 V
DeEm:	00.0 dB
Xover:	050%
PatInv:	OFF
Dly:	+00000.000
Clk Output:	OFF
ClkAmp:	900 mV
ClkOf:	+0.000 V
ClkTrm:	+0.000 V

8 Position the arrow next to the **Pat Out** label on the PCB12500 Controller then press the softkey corresponding to the **EDIT** label.

9 Select **On** then press the softkey corresponding to the **EXIT** label to accept the change. This will turn on the data output. The channel ID LED of the TG5P1A should come on.

10 Position the arrow next to the **Clk Output** label on the PCB12500 Controller then press the softkey corresponding to the **EDIT** label.

11 Select **On** then press the softkey corresponding to the **EXIT** label to accept the change. This will turn on the clock output.

12 Verify that the waveform is similar to the one shown in Figure 2.

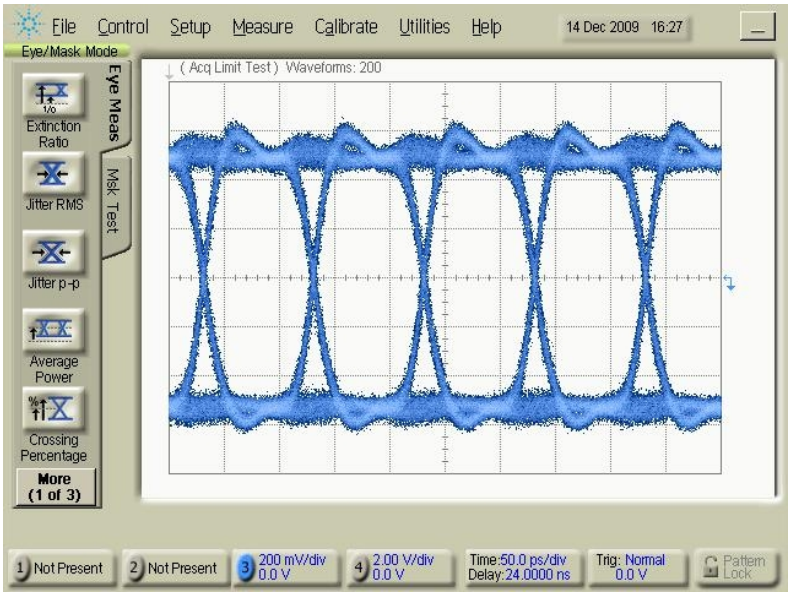

Figure 2. Installation setup waveform