# Hi3516C V500/Hi3516D V300/Hi3516A V300 High-Speed Signal Test Guide

**Issue** 00B02

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## HiSilicon (Shanghai) Technologies Co., Ltd.

Address: New R&D Center, 49 Wuhe Road, Bantian,
Longgang District,
Shenzhen 518129 P. R. China

Website: http://www.hisilicon.com/en/

Email: support@hisilicon.com

# About This Document

## Related Versions

The following table lists the product versions related to this document.

| Product Name | Version |
| --- | --- |
| Hi3516C | V500 |
| Hi3516D | V300 |
| Hi3516A | V300 |

## Intended Audience

This document is intended for:

- Technical support personnel
- Software development engineers

## Change History

Changes between document issues are cumulative. Therefore, the latest document issue contains all changes made in previous issues.

### Issue 00B02 (2019-01-15)

This issue is the second draft release, which incorporates the following changes:

Sections 1.3 and 2.3 are modified.

### Issue 00B01 (2018-10-15)

This issue is the first draft release.

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# 1 Testing the USB 2.0 Host

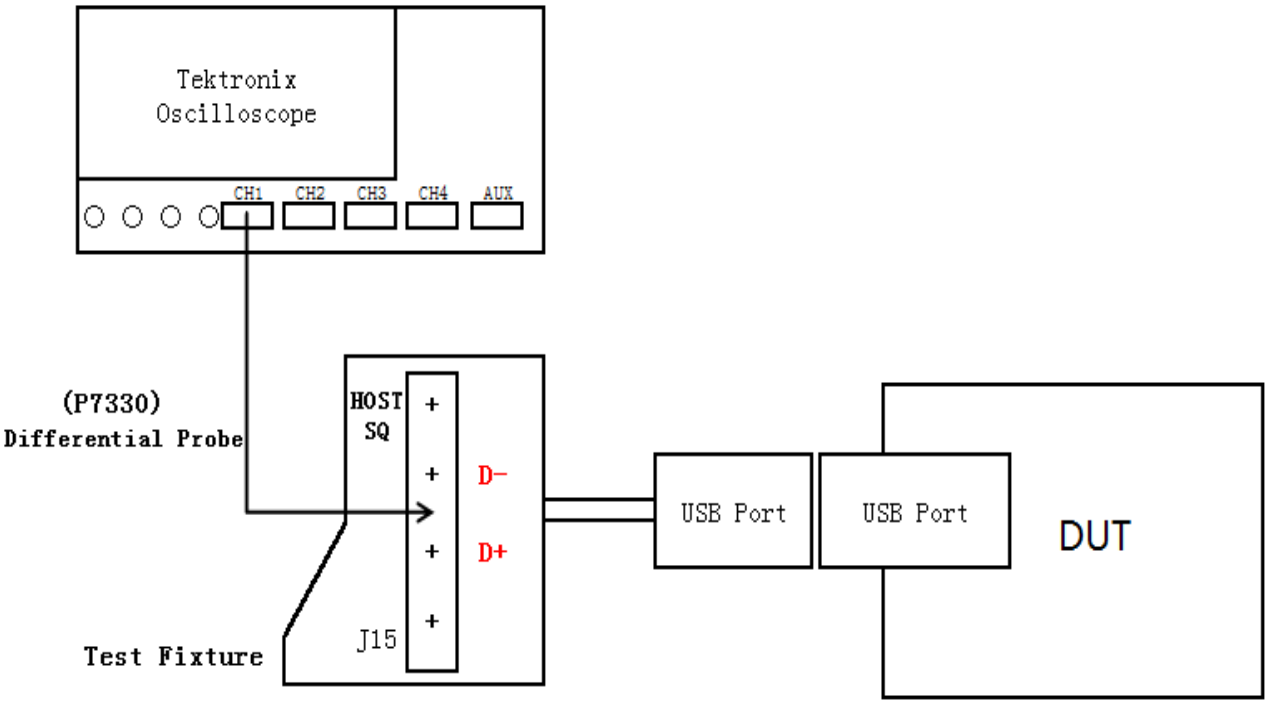
## 1.1 Test Tool

- Oscilloscope: Tektronix DSA72004C
- Differential probe: 3.5 GHz Tektronix (P7330 x 1)
- USB 2.0 test fixture

## 1.2 Test Networking

Figure 1-1 shows the test networking.

**Figure 1-1** Test networking

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NOTE

DUT is short for Device Under Test.

# 1.3 Test Register Configuration

//Test Packet

himm 0x100e0424 0x40000000

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# 2 Testing TX Signals from the 100 Mbit/s Network Port

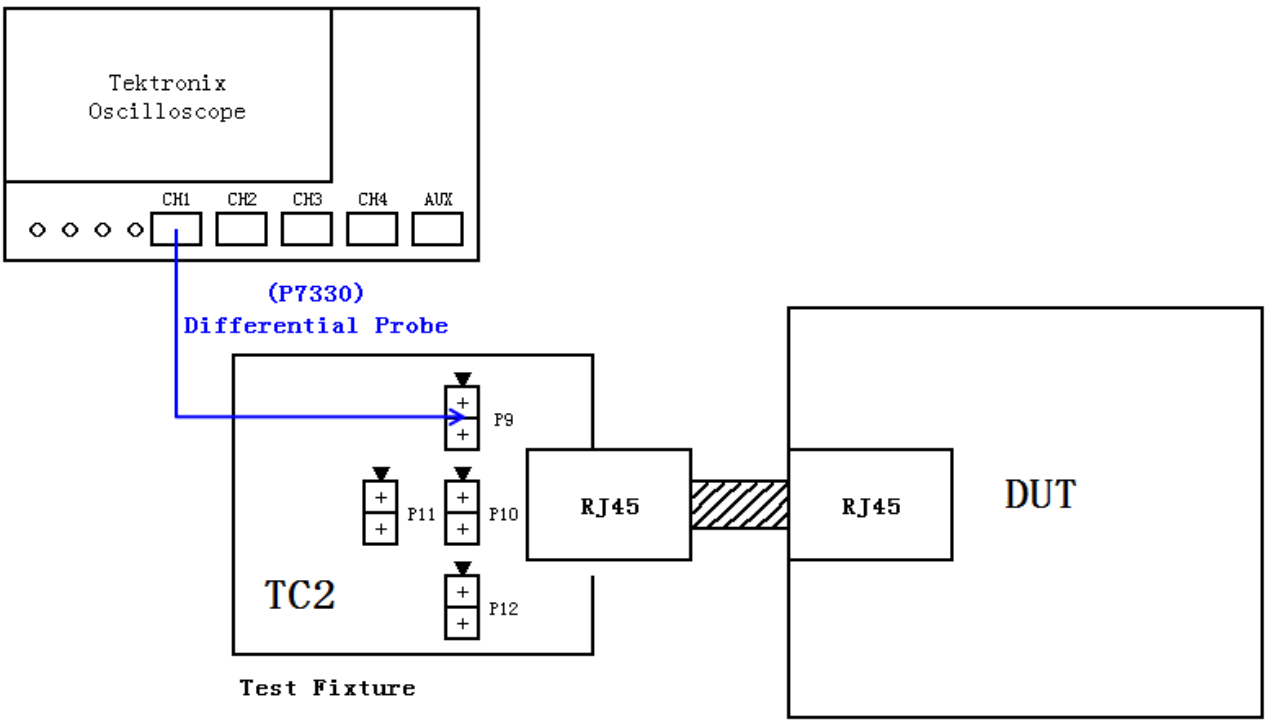
## 2.1 Test Tool

- Oscilloscope: Tektronix DSA72004C
- Differential probe: 3.5 GHz Tektronix (P7330 x 1)
- Fixture for testing the network port (TC2 module)

## 2.2 Test Networking

Figure 2-1 shows the test networking.

**Figure 2-1** Test networking

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NOTE

DUT is short for Device Under Test.

# 2.3 Test Register Configuration (RTL8201FI)

The PHY is forced to enter the megabit test mode. The configuration of related registers is provided by the PHY chip vendor.

**Figure 2-2** Initialization setting

***Initial setting ：***

Before all waveform (10/100M) measurement please set parameters as below:

Write Reg. 31 Data=0x0004

Write Reg. 16 Data=0x4077

Write Reg. 21 Data=0xC5A0

Write Reg. 31 Data=0x0000

Initialization:

himm 0x10011100 0x4211f;

himm 0x10011100 0x40772110;

himm 0x10011100 0xc5a02115;

himm 0x10011100 0x211f;

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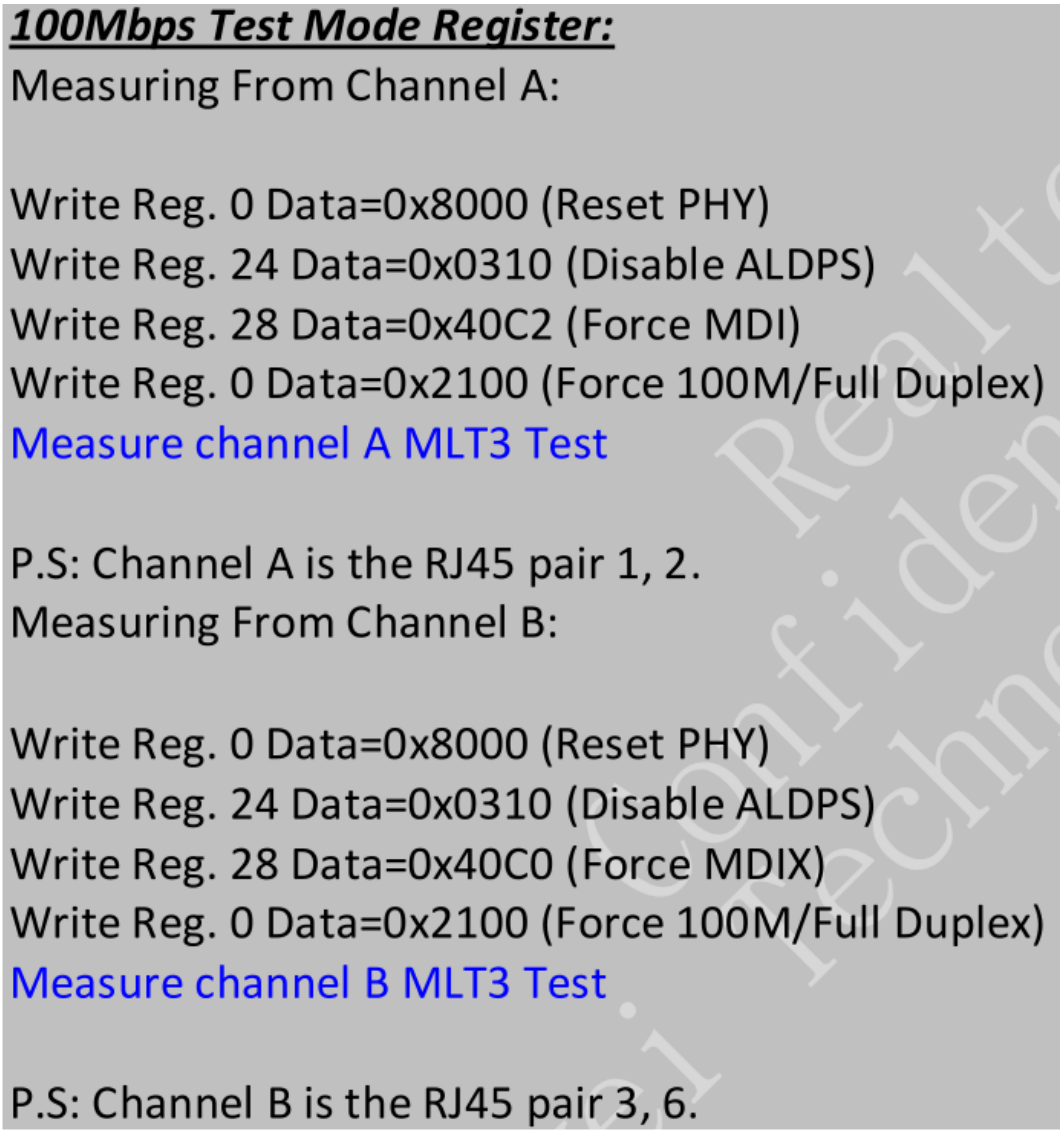
**Figure 2-3** Register configuration for the 100M-TX test of the network port




Configuration for testing: (Select channels as required)

//Channel A is the RJ45 pair 1, 2

himm 0x10011100 0x80002100;

himm 0x10011100 0x3102118;

himm 0x10011100 0x40c2211c;

himm 0x10011100 0x21002100;

//Channel B is the RJ45 pair 3, 6

himm 0x10011100 0x80002100;

himm 0x10011100 0x3102118;

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himm 0x10011100 0x40c0211c;

himm 0x10011100 0x21002100;

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