

## ACTiSYS Corporation

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# "IrDA-Official" IrSimple™ and IrSimpleShot™ Test Suite ACT-IR9305(2nd-Generation) Vs. ACT-IR9005(1st-G) Comparison

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(2011/5/27Rev;2006/10/9v1)

No.	Feature Description	ACT-IR9305 (2nd-Generation Tester)	ACT-IR9005 (1st-Generation Tester)
1	<b>Uni-mode Primary Test Cases (Timing Resolution)</b>	Can receive successfully, Min. Packet interval time of 100 micro-second!	Can not receive consistently, Min. Packet interval time of less than 1 milli-second
2	<b>Uni-mode Secondary Test Cases</b>	Can maintain Minimum Packet interval time as per Spec.	Can not exactly maintain Minimum Packet interval time
3	<b>Long Distance Extension (LDE) Test Cases (Primary &amp; Secondary)</b>	Fully Implemented	Not Implemented
4	<b>IrSimple Test Cases (TTL 271 in IrSimple Test Spec.), "Can Not Be Automatically and Accurately Tested"</b>	"0" (All 271 Test Cases are OK! No timing resolution hardware limitation, known to ACT-IR9005)	"124" (62 for LDE, and 62 for Uni-mode that need "Manual" means to test)
5	<b>Maximum Data Frame Size Allowed</b>	32 Kbytes (IrSimple spec.)	2 Kbytes (IrDA Classic spec.)
6	<b>Baud Rates Supported</b>	SIR, FIR and VFIR	SIR, MIR and FIR
7	<b>Test File Size Supported</b>	Up to 20 Mbytes	Limited to 25 Kbytes
8	<b>Configurable Negotiation Parameters</b>	Allowed, Flexible! Very useful in protocol debugging!	Not Allowed
9	<b>Timing Resolution Control</b>	Better Control over Timing Parameters	Less Control over Timing Parameters
10	<b>Customized Test File Selection</b>	Allowed	Not Allowed
11	<b>Facility to Record Raw Binary Data</b>	Allowed	Not Allowed
12	<b>Frame Timing Information</b>	Can display Frame-wise timing details	Can not display Frame-wise timing information
13	<b>Diagnostic Database</b>	Expanded & Improved over ACT-IR9005 implementation	Implemented
14	<b>Select Multiple Test Cases at A Time, when Set Up Test Style</b>	Fully Flexible, in Test Sub-group, Group, or all 271 Test Cases	Only allowed within a Test Sub-group



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## **IrSimple™ Protocol Debug and Test Suite, ACT-IR9305**

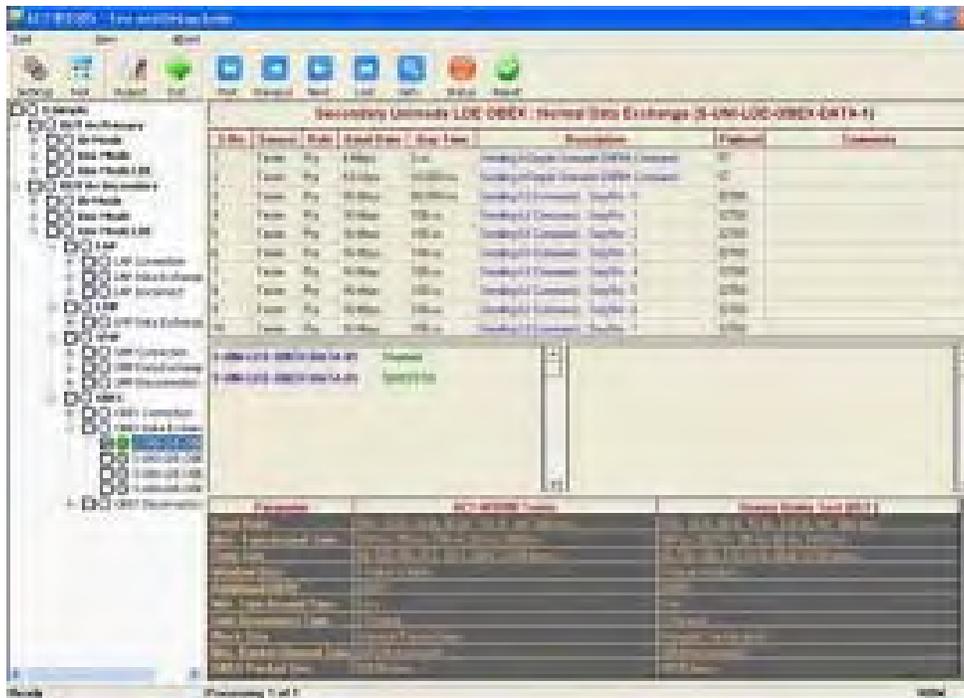
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- 2nd-Generation IrSimple™ Protocol Debug and Test Suite, ACT-IR9305 (consists of ACT-IR930xD+ACT-IR9305SW), after 1st-Generation Test Suite, ACT-IR9005.
- Supports **VFIR**, FIR and SIR through USB 2.0 port and Windows software.
- Implemented all IrSimple™ Uni-mode, Bi-mode and **LDE** (Long Distance Extension), Primary and Secondary Test Cases.
- More flexibility and much finer **timing resolution** (1.085 µsec for SIR, 1 µsec for FIR/VFIR), to catch all frames, even if min. packet interval is 100 µsec or less. ACT-IR9005 was 1 msec.
- The only tester implemented All **271** IrSimple Test Cases, in the new IrSimple Test Spec-v1.10.
- User can configure **multiple** Negotiation Parameters as per their requirement.
- Customized File selection for DUT-as-Secondary Test Cases (supports **Text, JPG, MPEG**, etc.)
- The only Tester that supports up to **32KB** frame size.
- Facilitates testing and debugging of IrSimple LAP™, LMP™, SMP™ and OBEX™ Layers.
- Facility to record raw binary data, and it can be reviewed using ACTiSYS Probe Software (ACT-IR92xx).
- Promotes inter-operability of IrDA®-IrSimple Primary and Secondary devices.
- Test software and Debugger intelligence can be easily upgraded and expanded.
- Friendly and comprehensive multi-window GUI for easy viewing and operation.
- Support larger file size (Tested up to 20MB).
- Facilitates to test & debug several Test Cases of one Test Group by selecting SW once.
- Detailed information regarding test progress, test results and violations are displayed in different color, in separate windows, for each Test Case.
- Debugger module describes the reason for Test Failure in every IrSimple Test Case.
- User can customize Test Cases based on their IrSimple Primary/Secondary device features.
- User can run IR9305SW easily without knowing IrDA-IrSimple Test Specification in detail.
- Automatically generates Official IrSimple Test Report, per approved Test Report Templates. Also generates Summary Report, Frame History Report and Timing Reports.

- ACT-IR9305 software supports Windows2000, XP, Vista and Windows7.
- Speeds up the IrDA<sup>®</sup> IrSimple<sup>™</sup> Qualification of your IrSimple products.
- ACT-IR930xD is powered by USB port. Same ACT-IR930xD is used for all other ACTiSYS IrDA-IrSimple Protocol Test Suites, as below:  
ACT-IR9306SW (IrDA Protocol Primary and Secondary Debug and Test Suite).  
ACT-IR9307SW (IrDA OBEX Primary and Secondary Debug and Test Suite).
- You can easily buy one model and upgrade to other models by buying software only.
- You can easily run different IrDA Protocol Test Suites, by switching among Test Programs.
- Select (check mark) Test Cases, which after tested, change color (Green=Pass, Red=Fail).
- Select 'Report' option in Toolbar, which will allow to view the Test Result in HTML View.

**Sample Screen Shots**

Fig.1: Expandable tree of all 271 Test Cases. Check mark one or group of Test Cases to test.



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Fig.2: Multiple IrDA®-IrSimple™ negotiation parameters can be configured.

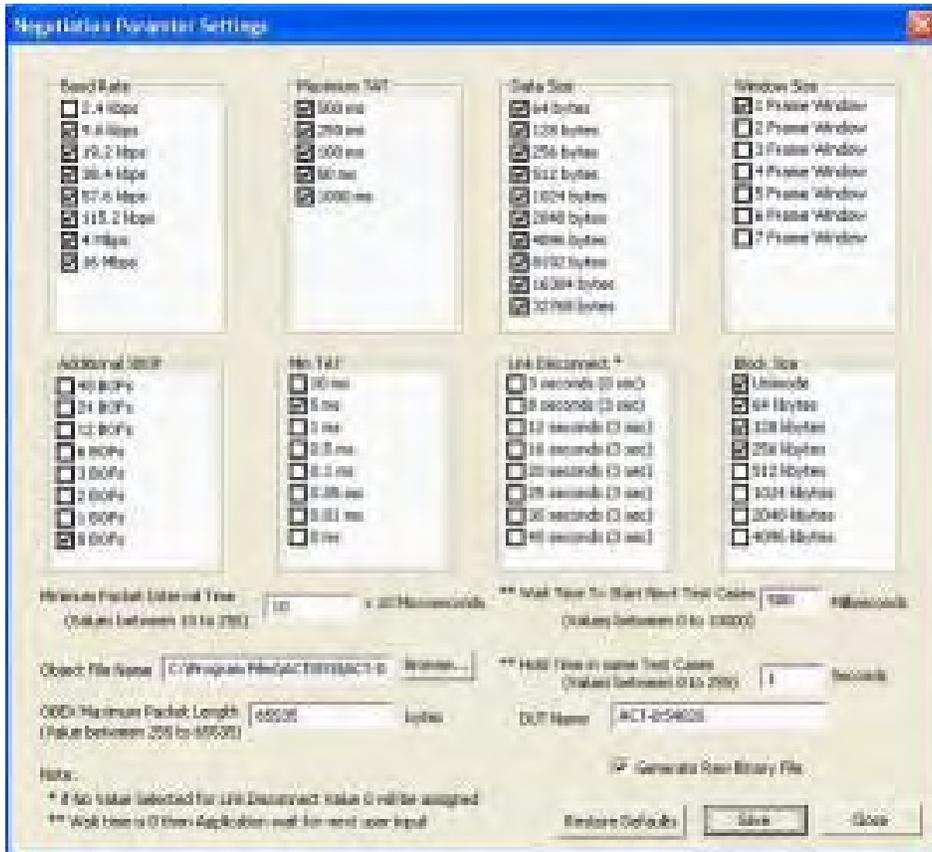


Fig.3: Automatically generates Test Report as per Official IrSimple™ Test Report Template after completion of testing.

Pass/Fail/Not Exec	Layer/Type and Test ID	Test Description	Dependencies
Pass	Discover	Test P-B-IrP-0001-0001-1 Discover Response for DUT with IrSimple (S1)	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-2 Max Retry Count of the IRMP for DUT with IrSimple (S2)	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-3 The IR Response to the SADR for the DUT with IrSimple (S3)	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-4 Discover Response for the DUT with IrSimple + SDA	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-5 Timing of the IR Presequence for the DUT with IrSimple + SDA	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-6 Max Retry Count of the IRMP for the DUT with IrSimple + SDA	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-7 The IR Response to the IR Command for the DUT with IrSimple + SDA	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-8 The IR Response to the IR Command with PC for the DUT with IrSimple + SDA	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-9 The IR Response to the SDRMP for the DUT with IrSimple + SDA	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-10 The IR Response to the IR-End for the DUT with IrSimple + SDA	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-11 The DM Response to the IR-Cmd for the DUT with IrSimple + SDA	Primary (Ir-mode)
Pass	Connect	Test P-B-IrP-0001-0001-12 Serial Connection	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-13 IR-Cable connection (Preag)	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-14 PC-cable connection (Preag)	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-15 Hand-Rate (Preag)	Primary (Ir-mode)
Pass		Test P-B-IrP-0001-0001-16 Speed-File (Preag)	Primary (Ir-mode)

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