

Introduction:



LiTek's HDMI1.4 test fixture set could be used to measure Type A and Type C cables. Other type connectors are option here. By using TpNA for HDMI, we can measure the high frequency parameters soon.

From HDMI CTS1.4, we can directly measure TEST ID 5-3 TMDs Data Eye Diagram. We can also select other high frequency parameters as followings:

TEST ID 5-4→Intra-Pair Skew ;

TEST ID 5-5→Inter-Pair Skew ;

TEST ID 5-6→Far End Crosstalk ;

TEST ID 5-7→Attenuation and Phase ;

TEST ID 5-8→Differential Impedance ;

TEST ID 5-15→Utility Line Impedance ◦

Above list parameters can be used to replace TEST ID5-3. Other TEST Items are not considered here.

The fixture set can be used to test the list parameters in factory. For similar eye diagram testing, the signal generator should be available.

Standard HDMI1.4 test fixture set:

Item	Name	Q'ty	Remark
1	HDMI-AR01A	2	HDMI A rec fixture
2	HDMI-CR01A	1	HDMI C rec fixture
3	HDMI-CK01A	1	HDMI cal kit
4	50-CM Coaxial	4	
5	30-CM Coaxial	4	
6	50 Ohms Load	16	
7	TpNA for HDMI	1	

HDMI1.4 set Application:

→HDMI cable testing ;

→HDMI device testing ;

→HDMI connectors testing ◦

Equipments: (TpNA supported)

Agilent :

ENA→ E5071C, 4 Port ;

TDR→ 86100C & 2X 54754A ;

PPG→ N4903A

Tektronix :

TDR→ TDS8200 & 2X 80E04 ;

PPG→ DTG5334A ;

Anritsu :

PPG→ MP1800 or MP1810 ;

Advantest :

NA→ R3767CG, 4 Port ◦

Option Products :

Eye Diagram :

TpNA for Eye software :

Active Eye Diagram :

HDMI-AR02AM → HDMI receptacle A test fixture for Active cable ;

HDMI-AP02AM → HDMI plug A test fixture for Active cable ;

HDMI Plug Test Fixture :

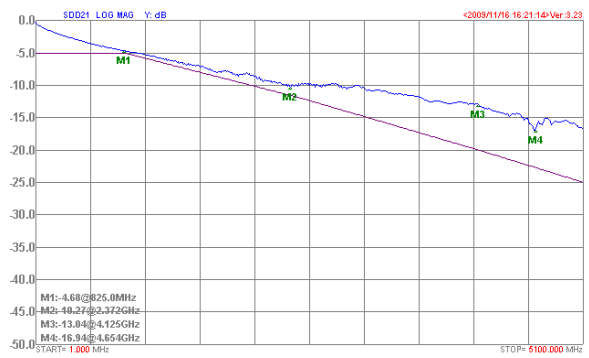
HAD-13 : HDMI Type A Plug test fixture for compliance eye testing ;

HDMI-CA01A : HDMI Type C plug test fixture for compliance eye testing ;

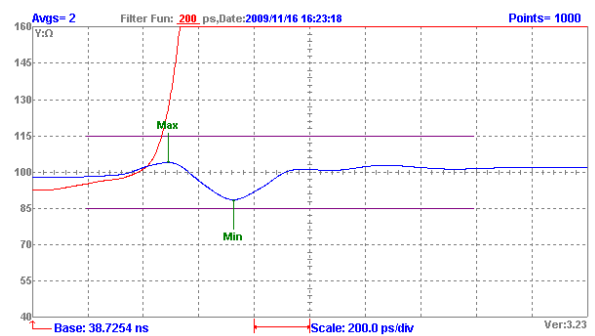
HDMI other type test fixture :

HDMI-DR01A : HDMI receptacle D test fixture for cable ;

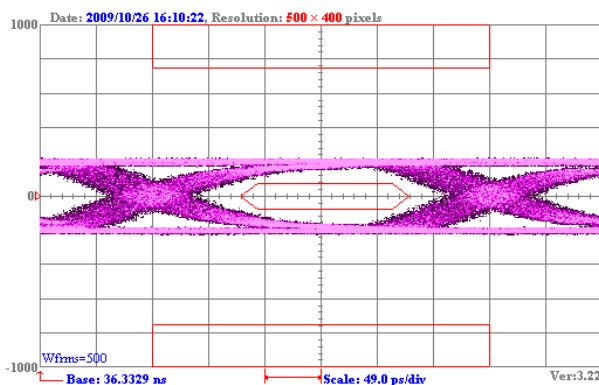
HDMI-DP01A : HDMI plug D test fixture for compliance eye testing ◦



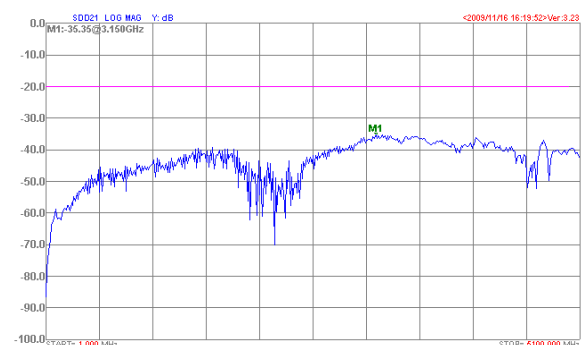
HDMI 1.4 Insertion Loss



HDMI 1.4 Transition Area Impedance



HDMI 3.4G eye with jitter



HDMI 1.4 FEXT

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