

## Introduction:



**Fig 1: HDMI 2.1 Type C Test Fixture**

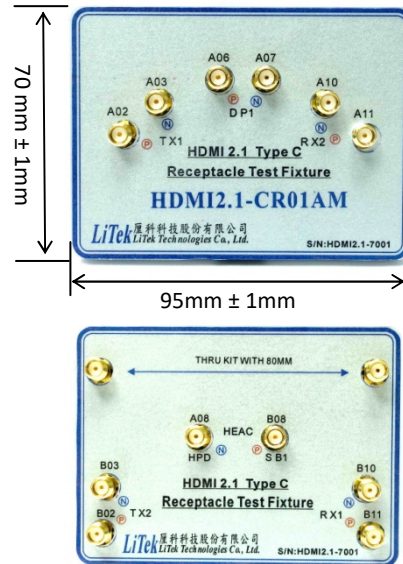
LiTek's HDMI2.1-CR01AM is a HDMI Type C receptacle test fixture used to measure HDMI cable with Type C plugs and HDMI source with HDMI Type C receptacle connector and connected with HDMI C type cable assembly. There are 6 pairs with SMA connectors in the Scope or Signal generator sides. The impedance in the test fixture is well designed between 95~105 ohms. The intra pair skew for all 6 pairs are designed less than 3ps.



**Fig 2: HDMI2.1-CR01AM plugged into Host Device after Type C to TypeC cable assembly**

## Physica Characteristic:

RF Connector: SMA X 14  
 HDMI Connector: Type C receptacle  
 Dimension: 70 X 95 mm<sup>2</sup>



**Fig 3: Dimension of HDMI2.1-CR01AM**

## Features and Performance:

Trace Impedance: 100 +/- 5 Ω  
 Skew: Less than 3ps.  
 Loss: Less than 3 dB @12GHz.

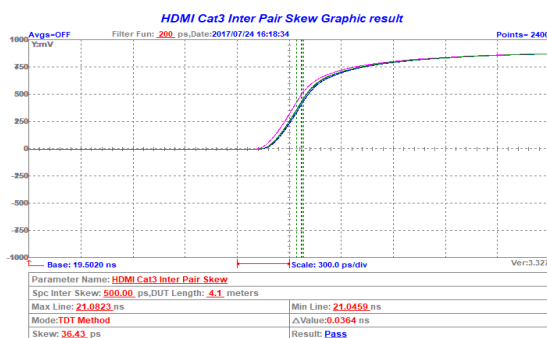
**Table1: HDMI Source Pin Assicment for USB Type-C connector**

| Pin | Rev Pin | Description                 | HDMI Function  | Pin | Rev Pin | Descritpion            | HDMI Function   |
|-----|---------|-----------------------------|----------------|-----|---------|------------------------|-----------------|
| A1  | B1      | Common Ground               | TMDS D1 Shield | B12 | A12     | Common Ground          | TMDS D2 Shield  |
| A2  | B2      | Switched with TMDS CLK-     | TMDS D1+       | B11 | A11     | Switched with TMDS D0- | TMDS D2+        |
| A3  | B3      | Switched with TMDS CLK+     | TMDS D1-       | B10 | A10     | Switched with TMDS D0+ | TMDS D2-        |
| A4  | B4      | VBUS (USB Type-C)           |                | B9  | A9      | VBUS (USB Type-C)      |                 |
| A5  | B5      | Intergrated on CC signaling | CEC SCL/SDA    | B8  | A8      | Switched with HD/HEAC- | Utility/HEAC+   |
| A6  | B6      | D+ (USB Type-C)             |                | B7  | A7      | D- (USB Type-C)        |                 |
| A7  | B7      | D- (USB Type-C)             |                | B6  | A6      | D+ (USB Type-C)        |                 |
| A8  | B8      | Switched with Utility/HEAC+ | HPD/HEAC-      | B5  | A5      | V conn (+5V Power)     | +5V Power       |
| A9  | B9      | VBUS (USB Type-C)           |                | B4  | A4      | VBUS (USB Type-C)      |                 |
| A10 | B10     | Switched with TMDS D2-      | TMDS D0+       | B3  | A3      | Switched with TMDS D1- | TMDS CLK+       |
| A11 | B11     | Switched with TMDS D2+      | TMDS D0-       | B2  | A2      | Switched with TMDS D1+ | TMDS CLK-       |
| A12 | B12     | Common Ground               | TMDS D0 Shield | B1  | A1      | Common Ground          | TMDS CLK Shield |

## Application:

- TV.
- Cable Assembly with C plug.
- HDMI Source devices.

## Test Report:



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