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# 高通多媒体技术期刊 20160127

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Qualcomm Technologies, Inc.

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# Revision History

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Revision	Date	Description
A	Jan. 2016	Initial release

**Note:** There is no Rev. I, O, Q, S, X, or Z per Mil. standards.

# 内容

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- Display
  - 使用QDCM自动生成报告的功能

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# Display

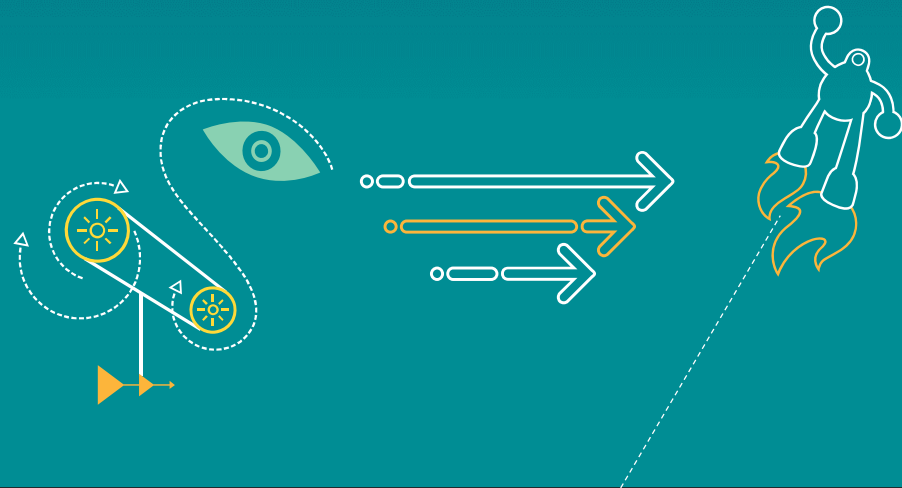
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# 使用QDCM自动生成报告功能

- QDCM从v4.3版本开始，有了自动生成报告的功能。
- 主要有2部分作用：
  - 1) 对屏幕原生的表现的分析
  - 2) 做完色域映射之后，对映射结果的分析
- 使用前提：
  - QDCM v4.3(及以上版本)的正确安装
  - 同时能够连上并使用测量仪器(PR655/CA-310/CA-210)




# 使用QDCM生成报告的步骤 (1)





- 具体步骤如下：

- 1) 打开QDCM的安装目录，找到ReferenceRGB\_XYZ.txt文件  
默认安装路径为：

*C:\Program Files (x86)\Qualcomm\QDCM\Default\_Color\_Sets\LCD1*

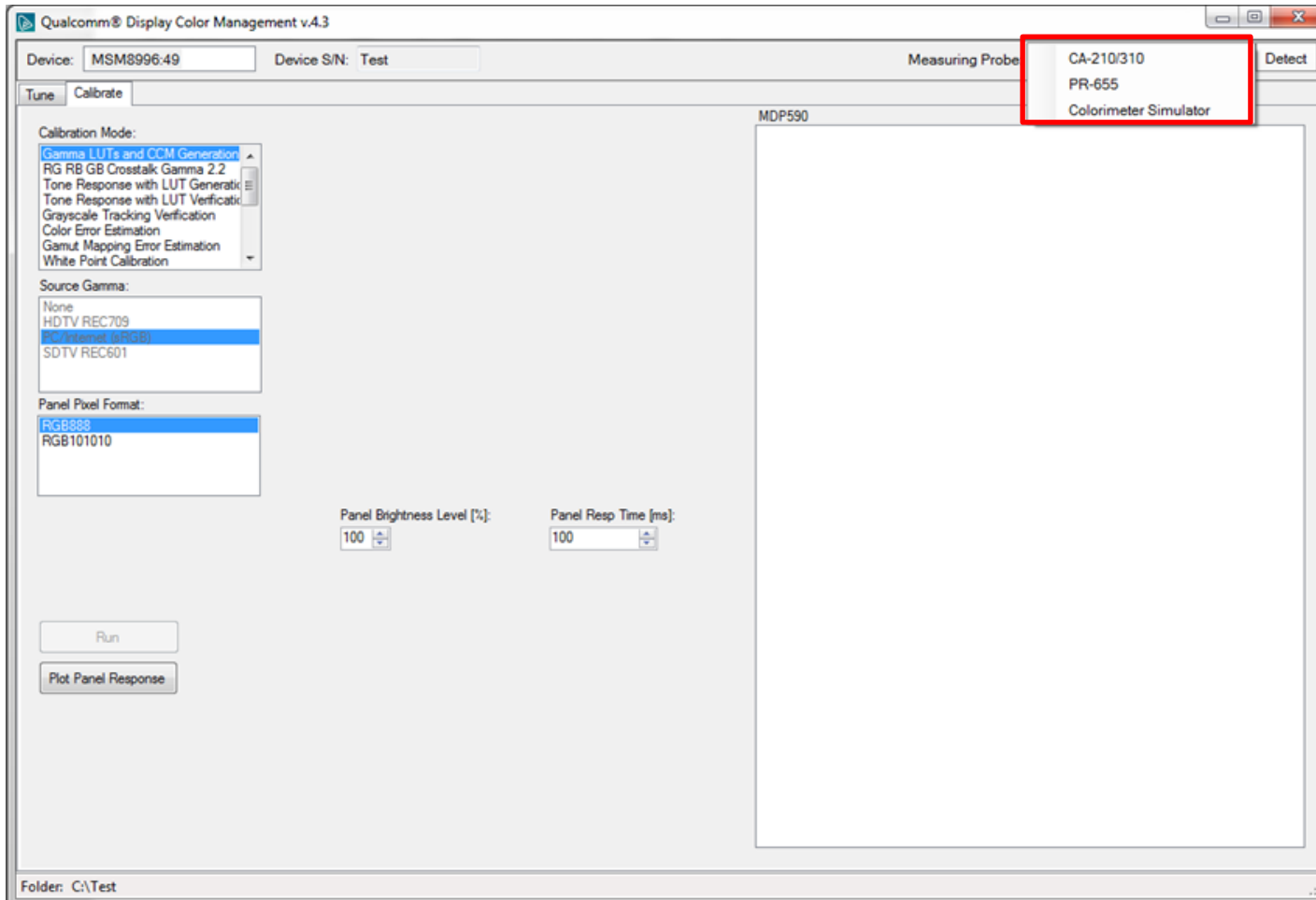
Name	Date modified	Type	Size
 ReferenceRGB_XYZ	1/11/2016 10:46 AM	Text Document	2 KB

- 2) 将文件拷贝到工程目录下

zhizhouc03 (C:) > Test				
Print Burn New folder				
Name	Date modified	Type	Size	
 DEVICE_SN	1/22/2016 8:33 PM	Text Document	1 KB	
 MDP_HW_VER	1/22/2016 8:33 PM	Text Document	1 KB	
 ReferenceRGB_XYZ	1/11/2016 10:46 AM	Text Document	2 KB	
 WhitePointLut.encrypted	1/22/2016 9:26 PM	ENCRYPTED File	2 KB	

# 使用QDCM生成报告的步骤 (2)

- 具体步骤如下：
  - 3) QDCM切到“Calibrate”界面
  - 4) “Measuring Probe”中选中测量设备

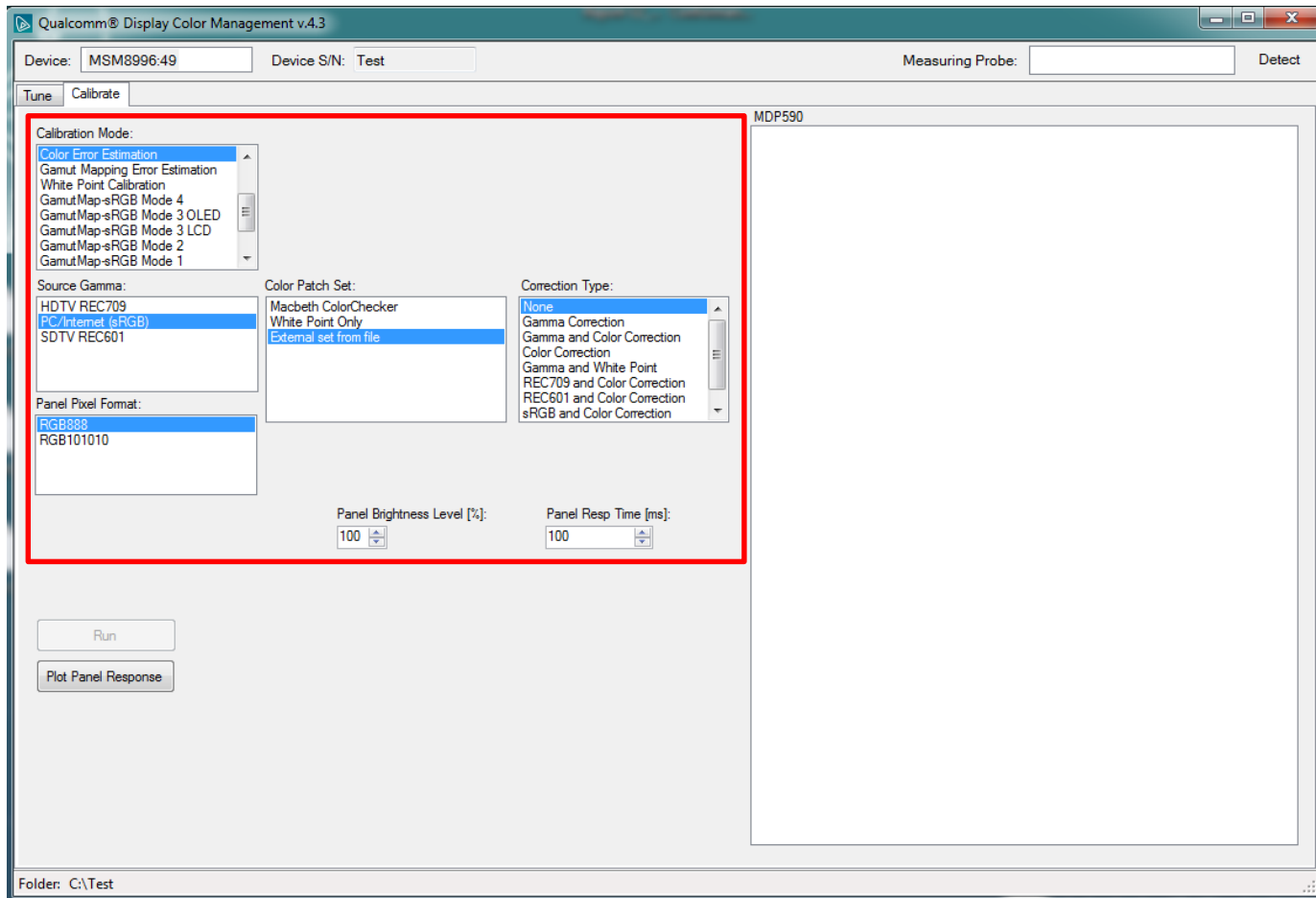




# 使用QDCM生成报告的步骤 (3)

- 具体步骤如下：

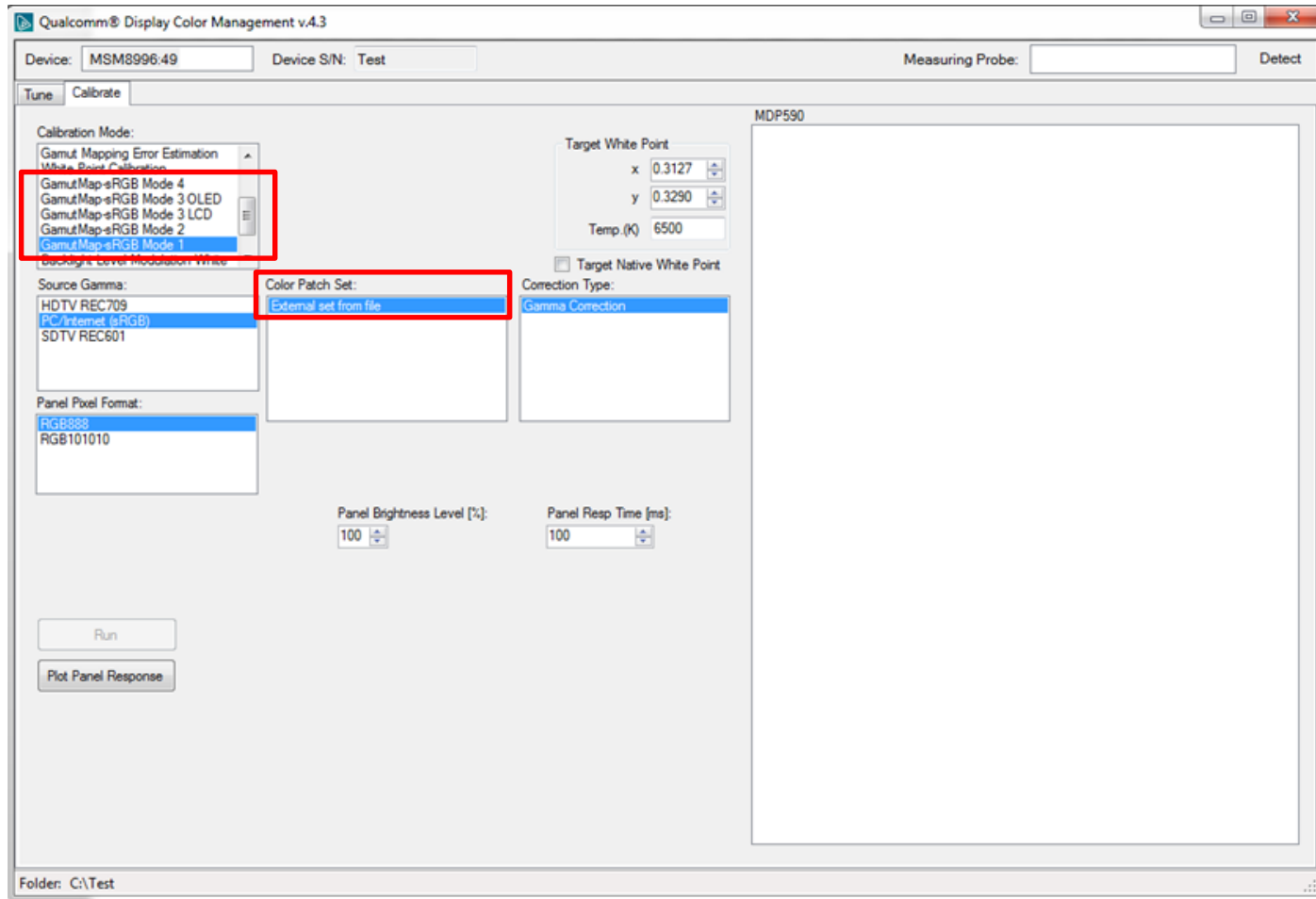
- 5) “Calibration Mode” 选中 “Color Error Estimation”
- 6) 具体设置如下图，最后点击“Run” 开始测量屏的原生表现的数据。



## 使用QDCM生成报告的步骤 (4)

- 具体步骤如下：

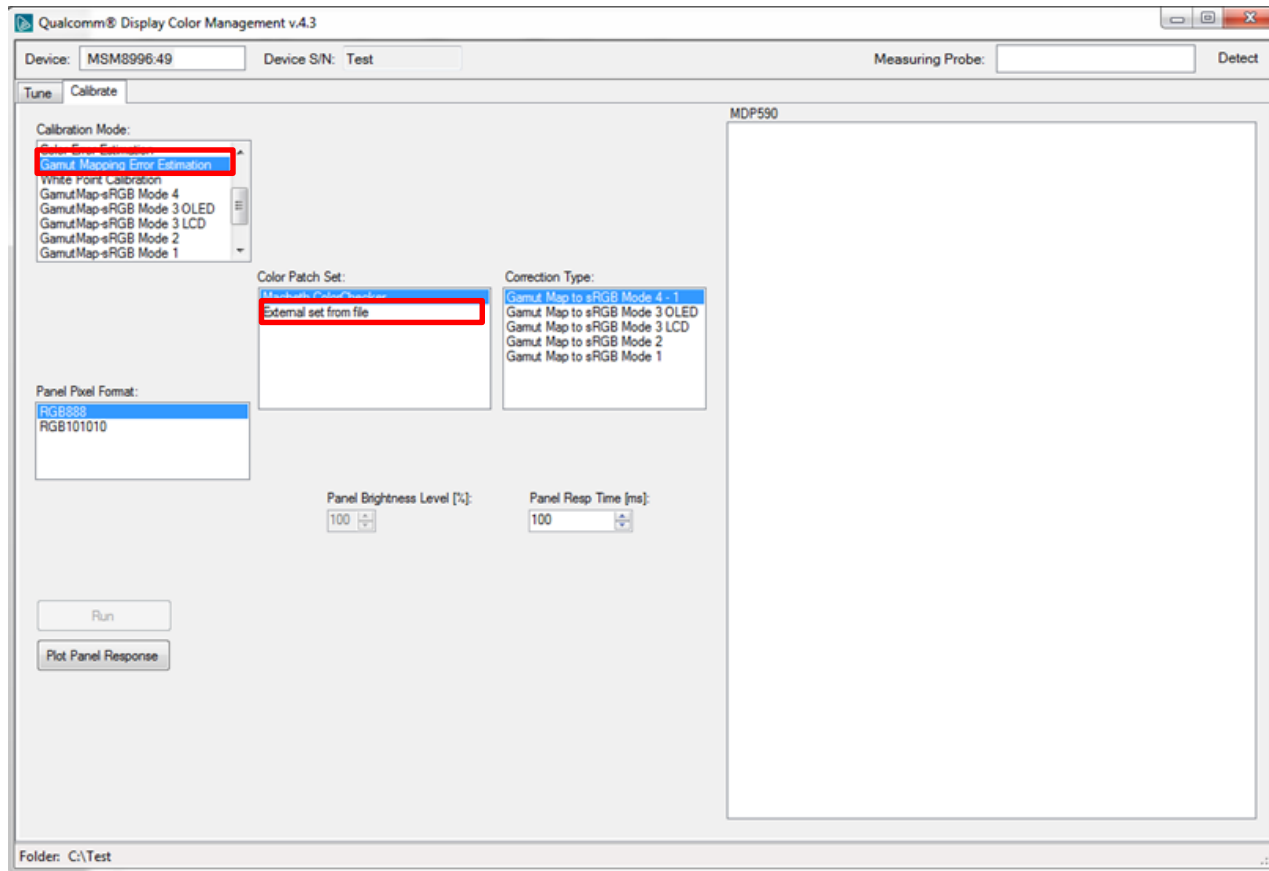
- 7) 色域映射可以选做，“Calibration Mode”选中对应的“GamutMap-sRGB Mode x”
- 8) “Color Patch Set”选中“External set from file”，其他设置依照具体要求，点“Run”



# 使用QDCM生成报告的步骤 (5)

- 具体步骤如下：

- 9) “Calibration Mode” 选中 对应的“Gamut Mapping Error Estimation”
- 10) “Color Patch Set”选中“External set from file”
- 11) “Correction Type”根据选做的色域映射选对应的，点“Run”

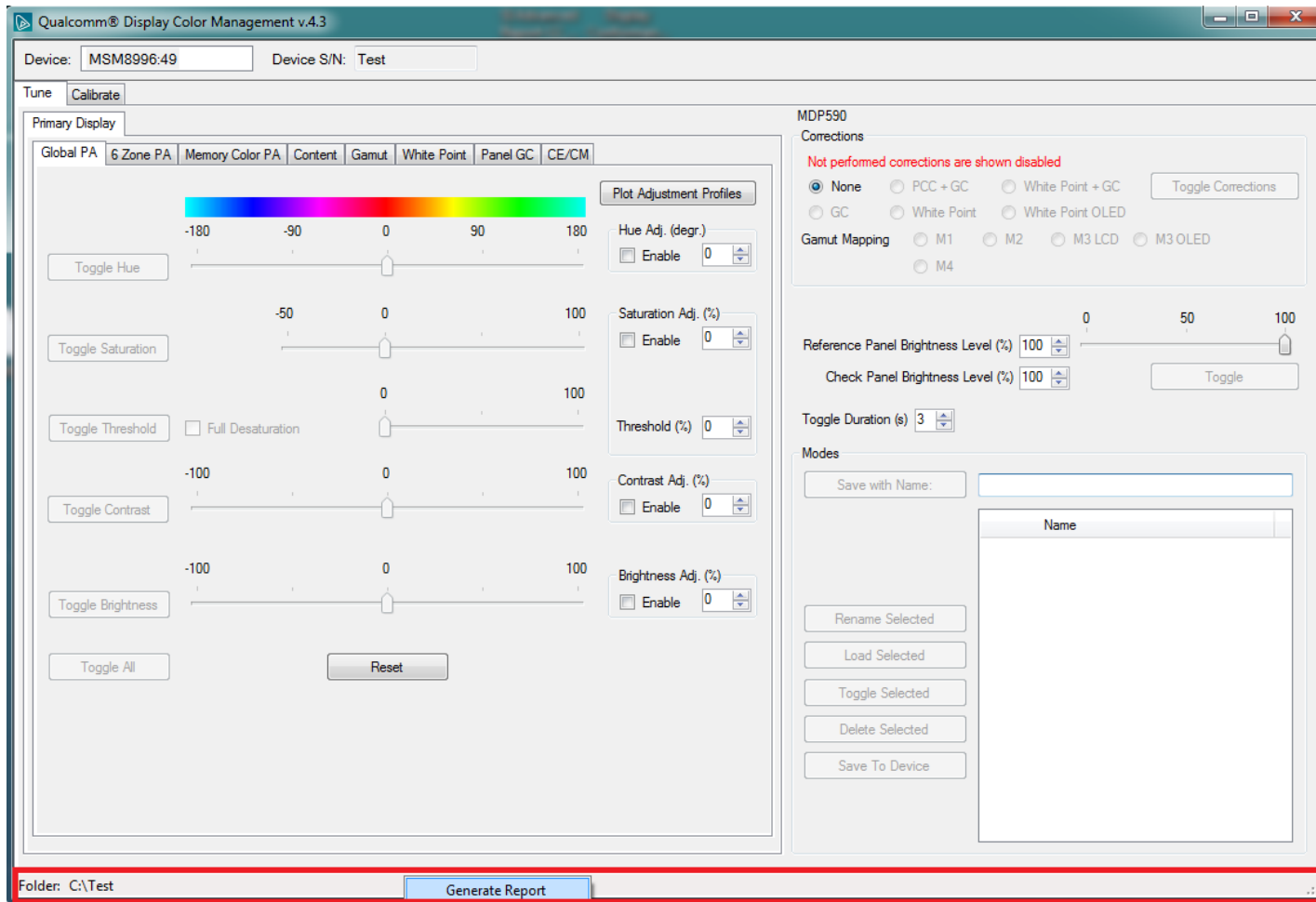


# 使用QDCM生成报告的步骤 (6)

- 具体步骤如下：

12) 在QDCM界面的最下面的部分(红框所圈)，鼠标右击会出现“Generate Report”

13) 点击“Generate Report”按钮



## 使用QDCM生成报告的步骤 (7)

- 具体步骤如下：

14) 报告会在工程目录下生成。名字 “Report\_ (时间戳).html”

Name	Date modified	Type	Size
ColourCorrection	1/19/2016 2:52 PM	File folder	
GammaValidation	1/19/2016 2:43 PM	File folder	
InvalidCorrectionData	1/19/2016 2:27 PM	File folder	
Modes	1/19/2016 2:56 PM	File folder	
ToneResponse	1/19/2016 2:43 PM	File folder	
WhitePointCalibration	1/19/2016 2:48 PM	File folder	
WhitePointCalibration_OLED	1/19/2016 2:43 PM	File folder	
Color_Error_Estimation.html	1/19/2016 2:55 PM	HTML Document	3 KB
DEVICE_SN.txt	1/19/2016 2:26 PM	Text Document	1 KB
GamutMap-sRGB_Mode_4_Option_1.enc...	1/19/2016 2:46 PM	ENCRYPTED File	2 KB
MDP_HW_VER.txt	1/19/2016 2:26 PM	Text Document	1 KB
ReferenceRGB_XYZ.txt	12/21/2015 8:10 AM	Text Document	2 KB
Report_20160119-150322.html	1/19/2016 3:03 PM	HTML Document	21 KB
White_Point_Calibration.html	1/19/2016 2:48 PM	HTML Document	2 KB
WhitePointLut.encrypted	1/19/2016 3:03 PM	ENCRYPTED File	2 KB

# 使用QDCM生成报告的内容 (1)

- 打开“Report\_ (时间戳).html”报告：
  - 包含色域映射的参数设置

sRGB Gamut Map Mode Generation

Mode	Mode 1	Mode 2	Mode 3(LCD)	Mode 3(OLED)	Mode 4
Total Cycle Time	N/A	N/A	N/A	N/A	N/A
Created On	N/A	N/A	N/A	N/A	2016-01-19@14:43:18
Panel Pixel Format	N/A	N/A	N/A	N/A	RGB888
Backlight Level	N/A	N/A	N/A	N/A	100
Source Gamma	N/A	N/A	N/A	N/A	PC/Internet (sRGB)
Color Measuring Probe	N/A	N/A	N/A	N/A	PR-655 (COM56)
Native White Point CCT and (x, y)	N/A	N/A	N/A	N/A	8700K (0.2817, 0.3180)
Target White Point CCT and (x, y)	N/A	N/A	N/A	N/A	6750K (0.3089, 0.3249)
Color Patch Set	N/A	N/A	N/A	N/A	External set from file
Number of Colors Used for Gamma LUT Generation	N/A	N/A	N/A	N/A	N/A
Number of Colors Used for PCC Generation	N/A	N/A	N/A	N/A	31

( 示例中，色域映射只做了Mode4，所以只有Mode4有设置参数 )

# 使用QDCM生成报告的内容 (2)

- 打开“Report\_ (时间戳).html”报告：
  - 包含对屏原生的基本参数的测量
  - 包含做完色域映射之后的基本参数的测量

sRGB Gamut Map Color Error Estimation

Mode	Native	Mode 1	Mode 2	Mode 3(LCD)	Mode 3(OLED)	Mode 4
Total Cycle Time	N/A	N/A	N/A	N/A	N/A	N/A
Created On	2016-01-19@14:52:33	N/A	N/A	N/A	N/A	2016-01-19@14:49:25
Panel Pixel Format	RGB888	N/A	N/A	N/A	N/A	RGB888
Backlight Level	100	N/A	N/A	N/A	N/A	100
Source Gamma	PC/Internet (sRGB)	N/A	N/A	N/A	N/A	PC/Internet (sRGB)
Color Measuring Probe	PR-655 (COM56)	N/A	N/A	N/A	N/A	PR-655 (COM56)
Measured White Point CCT and (x, y)	8700K (0.2817, 0.3176)	N/A	N/A	N/A	N/A	8700K (0.2816, 0.3177)
White Point Luminance (L)	677.1	N/A	N/A	N/A	N/A	676.6
Target White Point CCT and (x, y)	6500K (0.3127, 0.3290)	N/A	N/A	N/A	N/A	6750K (0.3089, 0.3249)
Color Patch Set	External set from file	N/A	N/A	N/A	N/A	External set from file
Number of Colors Used	31	N/A	N/A	N/A	N/A	31
Color Error (Average)	5.77667	N/A	N/A	N/A	N/A	5.02064
Color Error (Min)	1.93679	N/A	N/A	N/A	N/A	0.167157
Color Error(Max)	13.6898	N/A	N/A	N/A	N/A	13.2351

( 示例中，只做了native和Mode4的Calibration，所以在报告中只有Native和Mode4有测量结果 )

## 使用QDCM生成报告的内容 (3)

- 打开“Report\_ (时间戳).html”报告：
  - 包含对屏原生的色域分析
  - 做完色域映射之后的色域分析

Color Gamut

	Red Primary (x, y)	Green Primary (x, y)	Blue Primary (x, y)	Color Gamut (%) Relative To NTSC	Area
NTSC RGB	(0.67, 0.33)	(0.21, 0.71)	(0.14, 0.08)	100	0.158
sRGB(HDTV)	(0.64, 0.33)	(0.3, 0.6)	(0.15, 0.06)	70.8	0.112
Native	(0.6734, 0.3156)	(0.2460, 0.6286)	(0.1500, 0.0516)	87.5	0.138
Mode 1	N/A	N/A	N/A	N/A	N/A
Mode 2	N/A	N/A	N/A	N/A	N/A
Mode 3(LCD)	N/A	N/A	N/A	N/A	N/A
Mode 3(OLED)	N/A	N/A	N/A	N/A	N/A
Mode 4	(0.6180, 0.3241)	(0.3059, 0.5858)	(0.1555, 0.0587)	64.5	0.102

( 示例中，只做了native和Mode4的Calibration，所以在报告中只有Native和Mode4有色域分析 )



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# Questions?

<https://support.cdmatech.com>