



NEC Display Solutions, Ltd
Kokusai Building, 4-28, Mita 1-chome, Minato-ku, Tokyo 108-0073 Japan
9th November, 2018.
our ref. FBA18182

EMC test result of NEC Large Format Displays RPi bundles

To whom it may concern,

NEC Display Solutions, Ltd. is the manufacturer of the below listed large format displays which share a common electronics development platform: MultiSync® P654Q, MultiSync® V654Q, MultiSync® C651Q (**Common Platform Displays**).

These Common Platform Displays can optionally be equipped with computing intelligence. This requires the installation of the RPi Interface Board (DS1-IF10CE) and the RPi Compute Module 3 into the compute module slot of the respective Common Platform Display (**RPi Computing Intelligence**).

In case a Common Platform Display will be sold ex-factory with RPi Computing Intelligence, the specific model will carry the suffix RPi in its marketing name (e.g. MultiSync® P654Q-RPi).

Based on EMC test results, the Common Platform Display MultiSync® P654Q has the typical EMC performance within the permissible EMC testing requirements. The other models listed above have the same EMC performance or more below the limits. It was therefore considered as reference model for testing of the typical case EMC scenario of a Common Platform Display with integrated RPi Computing Intelligence.

Consequently, all other Common Platform Displays can be used in combination with RPi Computing Intelligence, without any negative effect on the Common Platform Display's EMC test results.

Kind regards,

Naohiko Shimazu
Senior Manager
Quality Management System Innovation Department
Quality Assurance Division

Enclosures: EMI measurement data with/without RPi board

(Attachment sheet) Measurement data for model, P654Q with Rpi and without Rpi.

Model Name: NEC_P654Q

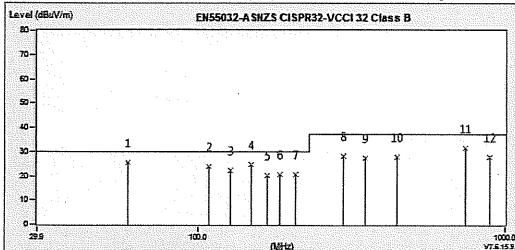


With RPi module, Vertical

香港南立德國際商品試驗有限公司集團分公司
Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

Brand / Model: NEC P654Q
Remark: RASPBERRY PI: 110V/60Hz, FULL SYSTEM
Tested by: Paul Chen

Location: OPEN SITE 4 Date: 2018/10/12 Time: 16:05:12 Approved by:
Temperature (C): 22.0 Humidity (%): 76 Polarity: Vertical



This data is for evaluation purposes only. It cannot be used for EMC approvals unless it contains the approved signature. If you have any questions regarding the test data, please contact with us or through mail: service.adl@tw.bureauveritas.com

No.	Frequency MHz	Factor dB/m	Reading dBuV	Emission dBuV/m	Limit dBuV/m	Margin dB	Tower / Table cm deg
1	58.85	-24.64	49.59	25.35	30.00	-4.65	100 321
2	108.28	-20.00	43.96	23.96	30.00	-6.04	100 122
3	127.59	-19.15	41.40	22.25	30.00	-7.75	100 294
4	148.72	-18.97	43.67	24.70	30.00	-5.30	100 259
5	168.08	-20.59	40.93	20.34	30.00	-9.66	100 280
6	184.24	-21.50	41.98	20.48	30.00	-9.52	100 0
7	208.00	-21.28	42.01	20.73	30.00	-9.27	100 117
8	298.94	-16.40	44.55	28.16	37.00	-8.84	100 310
9	350.14	-15.13	42.80	27.67	37.00	-9.33	100 298
10	445.48	-12.70	40.64	27.94	37.00	-9.06	100 298
11	742.52	-7.07	38.69	31.62	37.00	-5.38	284 158
12	891.05	-5.16	33.13	27.97	37.00	-9.03	226 25

ST4 ANT(E1-011374)-30M-10Hz-171_20181025 + ST4 CAB(GG-001004)-30M-10Hz-10M-181_20180326 + SSB PAD - ST4 AMP(E1-011386)-30M-10Hz-181_20180326

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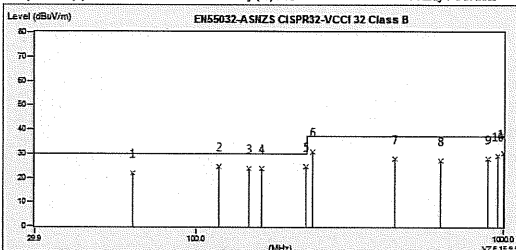


HDMI 4096*2160@60Hz,

香港南立德國際商品試驗有限公司集團分公司
Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

Brand / Model: NEC P654Q
Remark: FULL SYSTEM, HDMI 4096*2160 60Hz
Tested by: Paul Chen

Location: OPEN SITE 4 Date: 2018/10/02 Time: 10:53:45 Approved by:
Temperature (C): 27.0 Humidity (%): 65 Polarity: Vertical



This data is for evaluation purposes only. It cannot be used for EMC approvals unless it contains the approved signature. If you have any questions regarding the test data, please contact with us or through mail: service.adl@tw.bureauveritas.com

No.	Frequency MHz	Factor dB/m	Reading dBuV	Emission dBuV/m	Limit dBuV/m	Margin dB	Tower / Table cm deg
1	62.06	-25.04	46.83	21.79	30.00	-8.21	100 0
2	117.82	-19.50	44.33	24.83	30.00	-5.17	100 324
3	148.50	-18.87	42.97	24.00	30.00	-6.00	100 0
4	162.63	-20.03	44.04	24.01	30.00	-5.99	100 0
5	227.52	-20.06	44.55	24.49	30.00	-5.51	100 231
6	240.00	-18.62	49.31	30.69	37.00	-6.31	100 293
7	445.47	-12.70	40.63	27.93	37.00	-9.07	100 180
8	628.09	-8.78	35.83	27.05	37.00	-9.95	313 109
9	891.01	-5.16	33.04	27.88	37.00	-9.12	254 215
10	960.00	-3.46	32.51	29.05	37.00	-7.95	213 282
11	1000.00	-3.21	33.33	30.12	37.00	-6.88	205 132

ST4 ANT(E1-011374)-30M-10Hz-171_20181025 + ST4 CAB(GG-001004)-30M-10Hz-10M-181_20180326 + SSB PAD - ST4 AMP(E1-011386)-30M-10Hz-181_20180326

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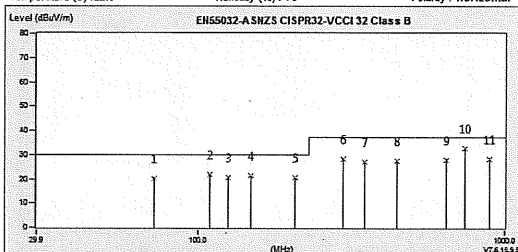


With RPi module, Horizontal

香港南立德國際商品試驗有限公司集團分公司
Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

Brand / Model: NEC P654Q
Remark: RASPBERRY PI: 110V/60Hz, FULL SYSTEM
Tested by: Paul Chen

Location: OPEN SITE 4 Date: 2018/10/12 Time: 16:31:17 Approved by:
Temperature (C): 22.0 Humidity (%): 76 Polarity: Horizontal



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No.	Frequency MHz	Factor dB/m	Reading dBuV	Emission dBuV/m	Limit dBuV/m	Margin dB	Tower / Table cm deg
1	71.95	-24.66	44.92	20.26	30.00	-9.74	400 280
2	109.02	-19.88	41.65	21.77	30.00	-8.23	400 303
3	125.17	-19.17	39.75	20.58	30.00	-9.42	400 113
4	148.51	-18.97	40.24	21.27	30.00	-8.73	400 185
5	208.32	-21.28	41.99	20.71	30.00	-9.29	400 295
6	297.12	-16.40	44.86	28.46	37.00	-8.54	382 295
7	350.14	-15.13	42.23	27.10	37.00	-9.90	318 171
8	445.51	-12.70	40.00	27.30	37.00	-9.70	194 115
9	642.79	-8.84	36.59	27.75	37.00	-9.25	138 141
10	742.52	-7.07	39.72	32.65	37.00	-4.35	100 169
11	891.01	-5.16	33.41	28.25	37.00	-8.75	100 19

ST4 ANT(E1-011374)-30M-10Hz-171_20181025 + ST4 CAB(GG-001004)-30M-10Hz-10M-181_20180326 + SSB PAD - ST4 AMP(E1-011386)-30M-10Hz-181_20180326

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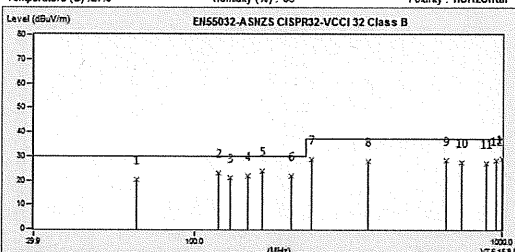


HDMI 4096*2160@60Hz,

香港南立德國際商品試驗有限公司集團分公司
Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

Brand / Model: NEC P654Q
Remark: FULL SYSTEM, HDMI 4096*2160 60Hz
Tested by: Paul Chen

Location: OPEN SITE 4 Date: 2018/10/02 Time: 11:21:47 Approved by:
Temperature (C): 27.0 Humidity (%): 65 Polarity: Horizontal



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No.	Frequency MHz	Factor dB/m	Reading dBuV	Emission dBuV/m	Limit dBuV/m	Margin dB	Tower / Table cm deg
1	64.51	-25.11	45.19	20.08	30.00	-9.92	400 135
2	118.99	-19.42	42.48	23.06	30.00	-6.94	400 290
3	130.28	-19.02	40.03	21.01	30.00	-8.99	400 84
4	148.69	-18.97	40.94	21.97	30.00	-8.03	400 0
5	165.49	-20.28	44.18	23.90	30.00	-6.10	400 120
6	206.32	-21.25	42.87	21.62	30.00	-8.38	400 265
7	240.00	-18.62	47.33	28.71	37.00	-8.29	390 252
8	367.46	-14.88	42.88	28.00	37.00	-8.88	315 258
9	660.11	-8.90	37.24	28.34	37.00	-8.66	134 155
10	742.50	-7.07	34.36	27.31	37.00	-9.69	100 236
11	890.99	-5.16	32.41	27.25	37.00	-9.75	100 92
12	959.98	-3.46	31.89	28.43	37.00	-8.57	100 72
13	999.98	-3.21	32.48	29.27	37.00	-7.73	100 79

ST4 ANT(E1-011374)-30M-10Hz-171_20181025 + ST4 CAB(GG-001004)-30M-10Hz-10M-181_20180326 + SSB PAD - ST4 AMP(E1-011386)-30M-10Hz-181_20180326

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