

KING DESIGN INDUSTRIAL CO., LTD.

4F, NO. 3, Lane 270, Pei Shen Road Sec. 3,
Shen Keng Dist., New Taipei City, 222, Taiwan, R.O.C
TEL: 886-2-2662-5100 FAX: 886-2-2662-3094

VIBRATION TEST LABORATORY

<http://www.kdi.tw>
<http://www.vibration.com.tw>
E-mail: service@kdi.tw

TESTING / INSPECTION REPORT

REPORT NO : VT-150911-1

COMPANY : EverFocus Electronics Corp.
ADDRESS : 12F, No.79, Sec. 1, Shin-Tai Wu Rd., Hsi-Chih
Taipei, Taiwan
TEL : 886-2-2698-2334
FAX : 886-2-2698-2380
SPECIMEN : Mobile Camera
DATE OF RECEIVED : 2015/08/26
DATE OF TESTED : 2015/08/27

TEST / INSPECTION ITEMS : Vibration & Shock Test

REMARKS :

- The laboratory is accredited by ISO/IEC 17025 General Requirements for the Competence of Calibration and Testing Laboratory.
- The results only apply to the device under test.
- This report is 17 pages, and no part of it may be abstracted or reproduced.

Test Engineer :

Peter Peng.

Approval Signatory

David Lee

Laboratory Head :

Hsin Zai Chang

金頓科

KING DESIGN INDUSTRIAL CO., LTD.

4F, NO. 3, Lane 270, Pei Shen Road Sec. 3,

Shen Keng Dist., New Taipei City, 222, Taiwan, R.O.C

TEL: 886-2-2662-5100 FAX: 886-2-2662-3094

VIBRATION TEST LABORATORY<http://www.kdi.tw><http://www.vibration.com.tw>E-mail: service@kdi.tw

TESTING / INSPECTION REPORT

TESTING EQUIPMENT :

Vibration Tester : KING DESIGN KD-9363EM-600F2K-50N120,
S/N : KDS11054783

Controller : VCS-913⁺, S/N : 1312416

Control Accelerometer : Wilcoxon Research WR-777, S/N : 4208

Calibration Date : 2014/11/25

Recommended Recal Date : 2015/11/24

TEST ENVIRONMENT :

Temperature : 25°C (25±10°C)

Relative Humidity : 65% RH (50±25% RH)

SPECIMEN :

Model : EMW930

EMWxxxx (xxxx: 0~9, +, -, A~Z, a~z)

Quantity : 2 pieces

KING DESIGN INDUSTRIAL CO., LTD.

4F, NO. 3, Lane 270, Pei Shen Road Sec. 3,
Shen Keng Dist., New Taipei City, 222, Taiwan, R.O.C
TEL: 886-2-2662-5100 FAX: 886-2-2662-3094

VIBRATION TEST LABORATORY

<http://www.kdi.tw>
<http://www.vibration.com.tw>
E-mail: service@kdi.tw

TESTING / INSPECTION REPORT

TEST SPECIFICATION(1) :

Reference to EN50155/(EN)IEC 61373 , Category 1 , Class B**Shock test (Operating)**

Wave Form : Half sine wave
Acceleration : 30 m/s² (for Vertical and Transverse)
: 50 m/s² (for Longitudinal)
Duration Time : 30 mS
No. of Shock : 3 times (Each Axis)
Shock Direction : $\pm$ Vertical, $\pm$ Transverse, $\pm$ Longitudinal

TEST SPECIFICATION(2) :

Reference to EN50155/(EN)IEC 61373 , Category 1 , Class B**Random vibration test (Operating)**

Frequency : 5 Hz to 150 Hz
Acceleration : 1.00 m/s² rms (for Vertical)
: 0.45 m/s² rms (for Transverse)
: 0.70 m/s² rms (for Longitudinal)
P.S.D : 0.0298 (m/s²)²/Hz (5 Hz to 20Hz for Vertical)
: 0.0060 (m/s²)²/Hz (5 Hz to 20Hz for Transverse)
: 0.0144 (m/s²)²/Hz (5 Hz to 20Hz for Longitudinal)
-6dB/oct (20 Hz to 150 Hz)
Test Axis : Vertical, Transverse, Longitudinal
Test Time : 10 mins (Each Axis)
Total Test Time : 30 mins

TEST RESULT :

Describe	PASS	FAIL	Non-Judgment
Function judgment	√	—	—
Appearance check	√	—	—

KING DESIGN INDUSTRIAL CO., LTD.

4F, NO. 3, Lane 270, Pei Shen Road Sec. 3,

Shen Keng Dist., New Taipei City, 222, Taiwan, R.O.C

TEL: 886-2-2662-5100 FAX: 886-2-2662-3094

VIBRATION TEST LABORATORY

<http://www.kdi.tw>

<http://www.vibration.com.tw>

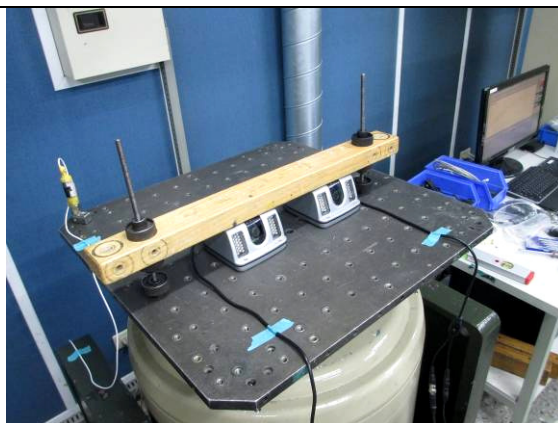
E-mail: service@kdi.tw

TESTING / INSPECTION REPORT

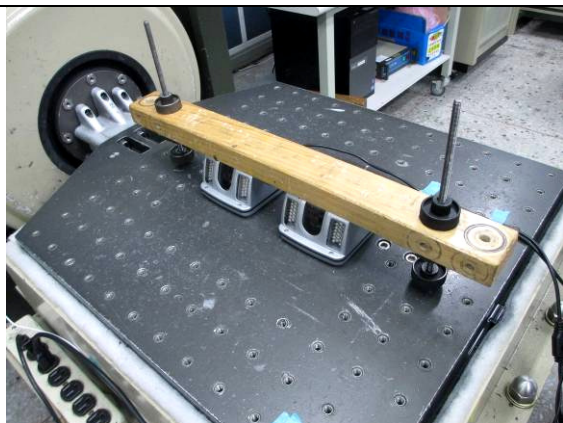
Shock testing photos (Operating)



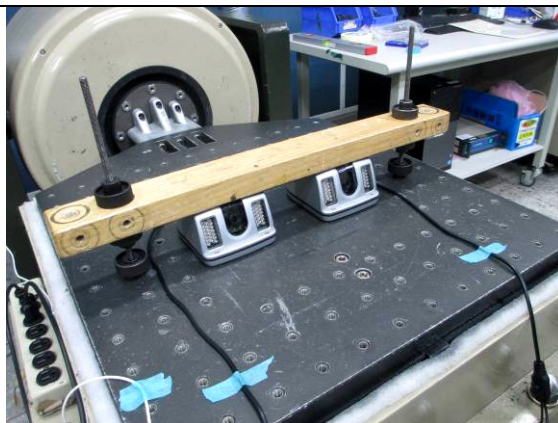
±Vertical



±Transverse



±Longitudinal



KING DESIGN INDUSTRIAL CO., LTD.

4F, NO. 3, Lane 270, Pei Shen Road Sec. 3,

Shen Keng Dist., New Taipei City, 222, Taiwan, R.O.C

TEL: 886-2-2662-5100 FAX: 886-2-2662-3094

VIBRATION TEST LABORATORY

<http://www.kdi.tw>

<http://www.vibration.com.tw>

E-mail: service@kdi.tw

TESTING / INSPECTION REPORT

Testing photos

After test



After test



KING DESIGN INDUSTRIAL CO., LTD.

4F, NO. 3, Lane 270, Pei Shen Road Sec. 3,

Shen Keng Dist., New Taipei City, 222, Taiwan, R.O.C

TEL: 886-2-2662-5100 FAX: 886-2-2662-3094

VIBRATION TEST LABORATORY

<http://www.kdi.tw>

<http://www.vibration.com.tw>

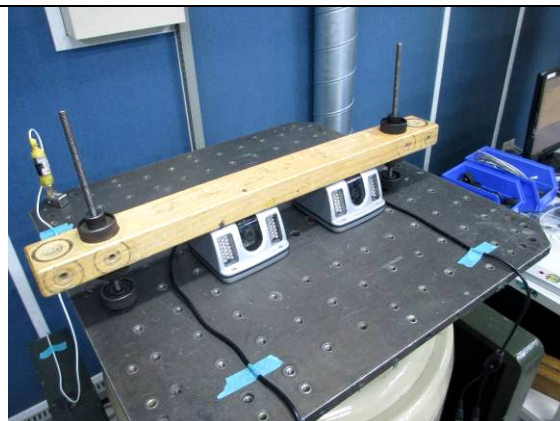
E-mail: service@kdi.tw

TESTING / INSPECTION REPORT

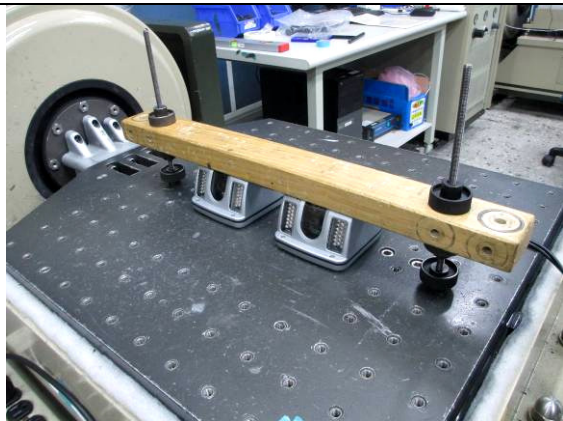
Vibration testing photos (Operating)



Vertical



Transverse



Longitudinal



KING DESIGN INDUSTRIAL CO., LTD.

4F, NO. 3, Lane 270, Pei Shen Road Sec. 3,

Shen Keng Dist., New Taipei City, 222, Taiwan, R.O.C

TEL: 886-2-2662-5100 FAX: 886-2-2662-3094

VIBRATION TEST LABORATORY

<http://www.kdi.tw>

<http://www.vibration.com.tw>

E-mail: service@kdi.tw

TESTING / INSPECTION REPORT

Testing photos

After test



After test



KING DESIGN INDUSTRIAL CO., LTD.

4F, NO. 3, Lane 270, Pei Shen Road Sec. 3,

Shen Keng Dist., New Taipei City, 222, Taiwan, R.O.C

TEL: 886-2-2662-5100 FAX: 886-2-2662-3094

VIBRATION TEST LABORATORY<http://www.kdi.tw><http://www.vibration.com.tw>

E-mail: service@kdi.tw

Attachment

聲明書

慧友電子股份有限公司聲明，Mobile Camera EMW930 與 EMWxxxx (xxxx: 0~9, +, -, A~Z, a~z) 共用一個機構外殼。

特此聲明

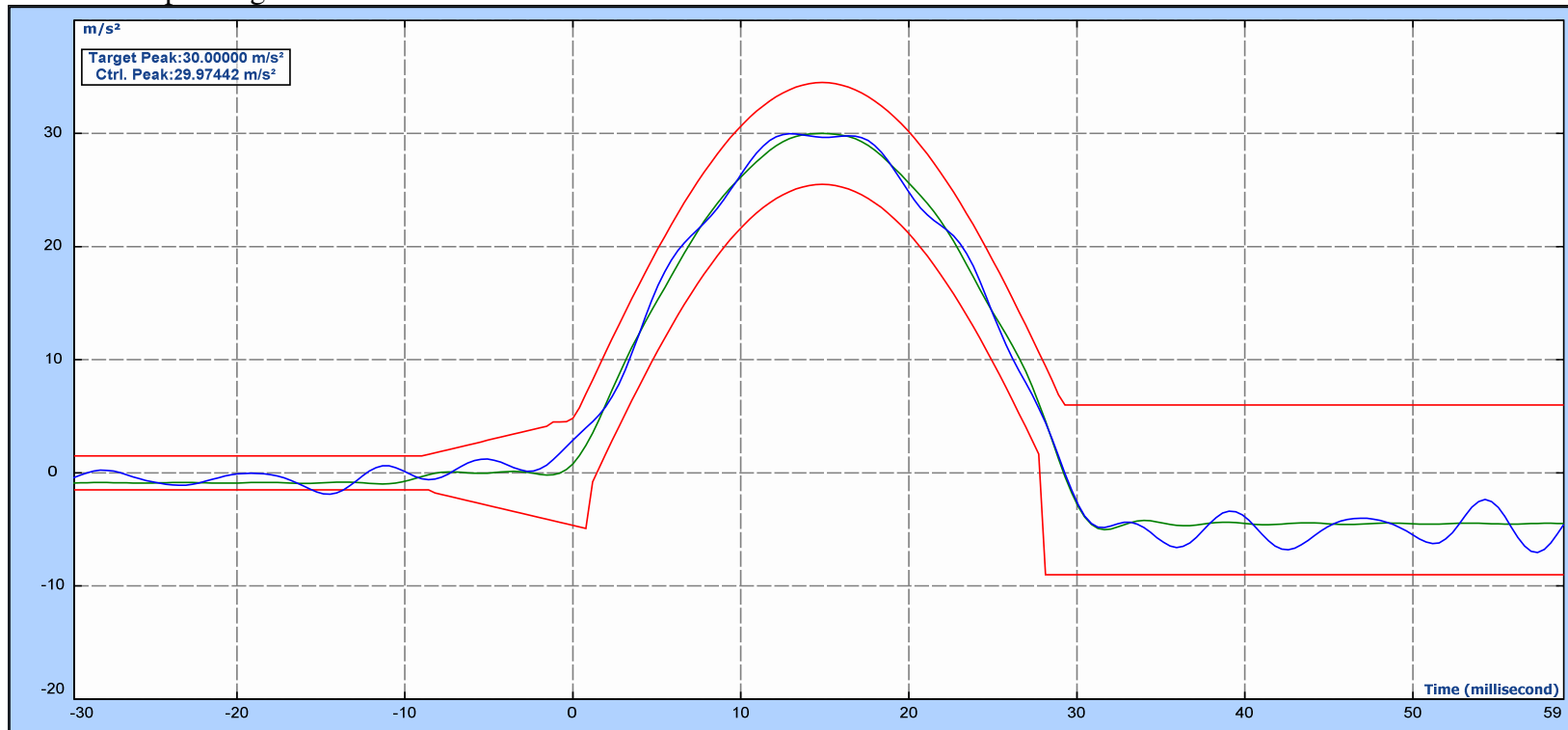
立書人

慧友電子股份有限公司

董事長 黃佳銘



+Vertical - operating



Level: 100.00 %

Velocity Pk: 0.309 m/s

 Control RMS: 3.258 m/s²

Full Level Elapsed: 3.0

Drive Pk: 0.795V

 Control Pk: 29.97 m/s²

Remaining: 0.0

Pulse width: 30.00 ms

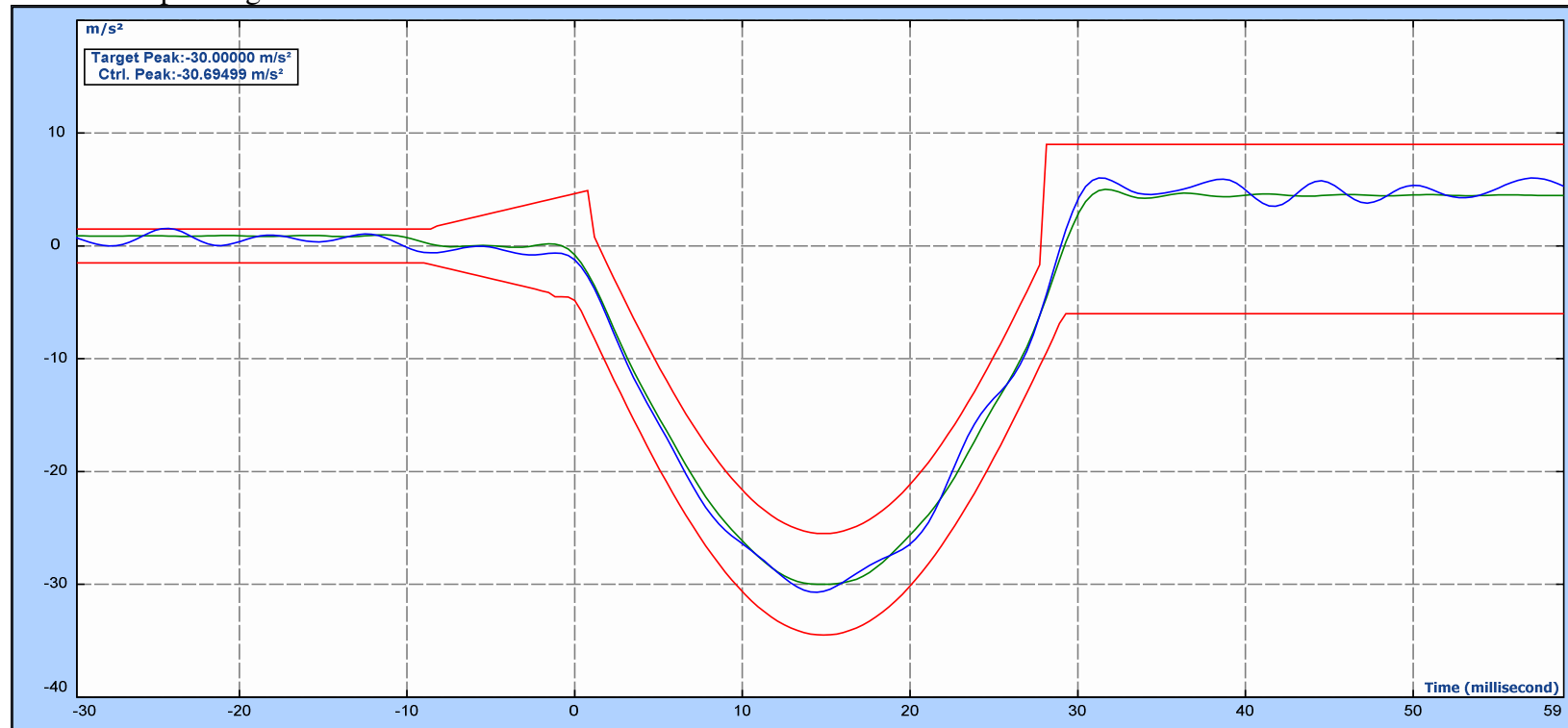
Est. Disp. : 21.62 mm Pk-Pk

 Target Pk: 30.00 m/s²

Total Elapsed: 18.0

Measured Pulse width: 36.58368(ms)

-Vertical - operating



Level: -100.00 %

Velocity Pk: 0.314 m/s

Control RMS: 3.282 m/s²

Full Level Elapsed: 3.0

Drive Pk: -8.3e-1V

Control Pk: -30.69 m/s²

Remaining: 0.0

Pulse width: 30.00 ms

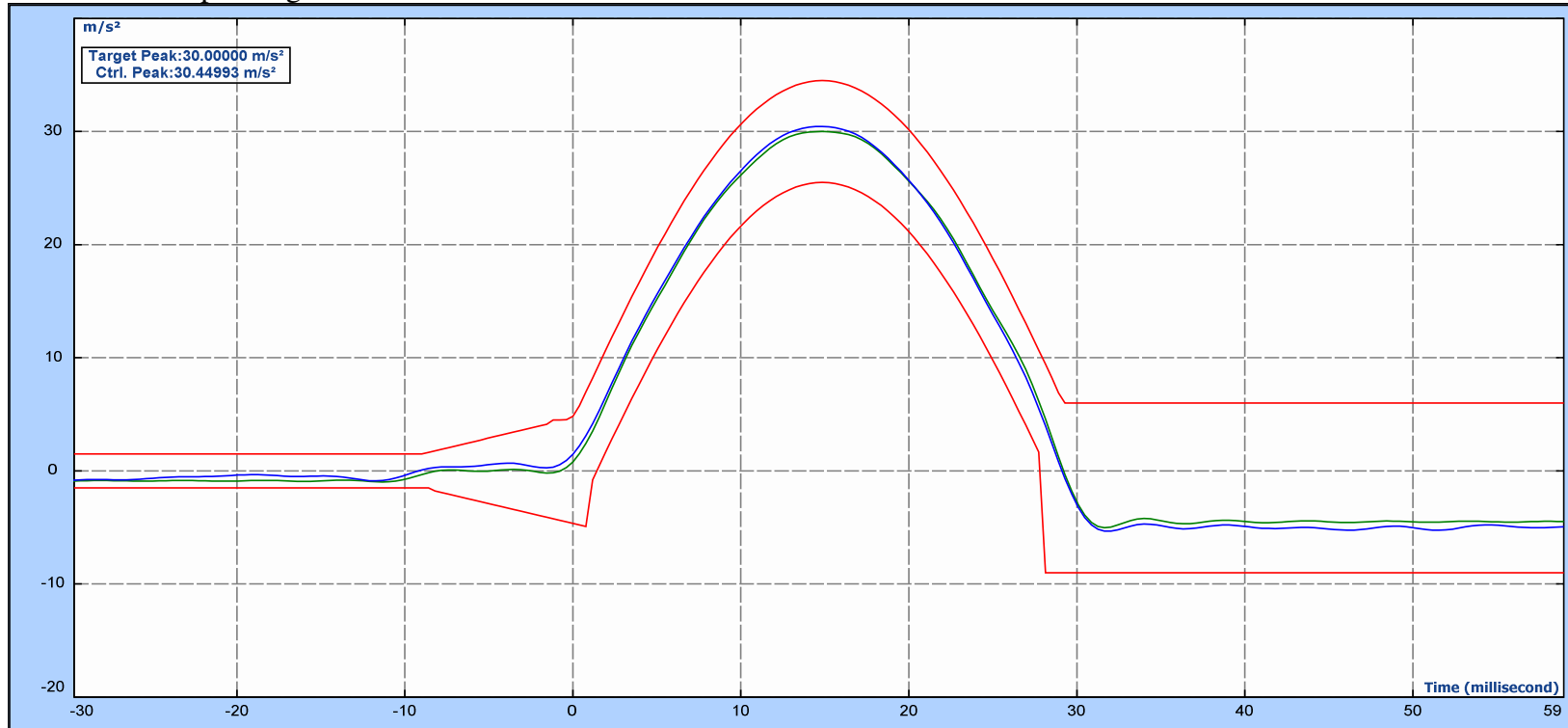
Est. Disp. : 21.30 mm Pk-Pk

Target Pk: -30.00 m/s²

Total Elapsed: 17.0

Measured Pulse width: 39.20303(ms)

+Transverse - operating



Level: 100.00 %

Velocity Pk: 0.311 m/s

 Control RMS: 3.264 m/s²

Full Level Elapsed: 3.0

Drive Pk: 0.792V

 Control Pk: 30.45 m/s²

Remaining: 0.0

Pulse width: 30.00 ms

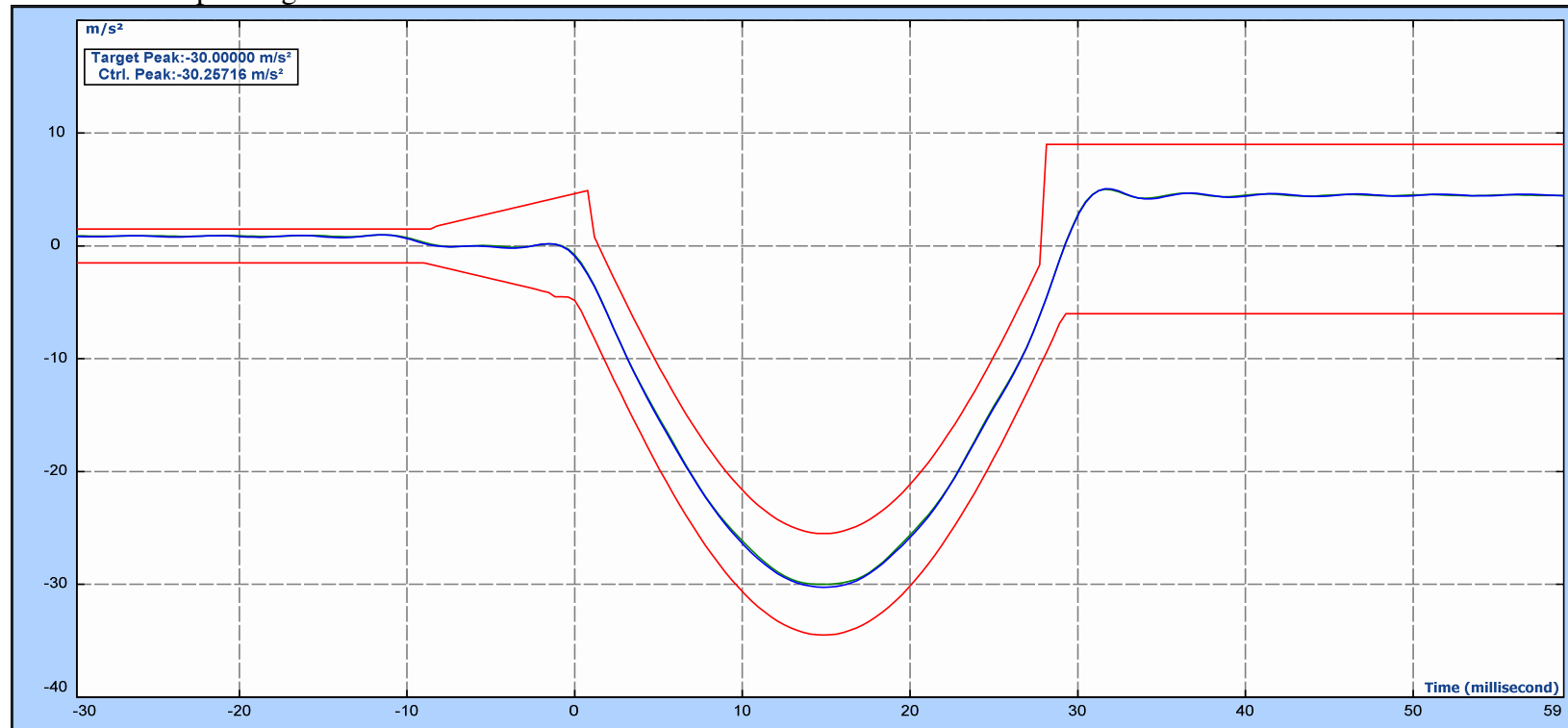
Est. Disp. : 21.48 mm Pk-Pk

 Target Pk: 30.00 m/s²

Total Elapsed: 18.0

Measured Pulse width: 38.30556(ms)

-Transverse - operating



Level: -100.00 %

Velocity Pk: 0.296 m/s

Control RMS: 3.217 m/s²

Full Level Elapsed: 3.0

Drive Pk: -2.9e-1V

Control Pk: -30.26 m/s²

Remaining: 0.0

Pulse width: 30.00 ms

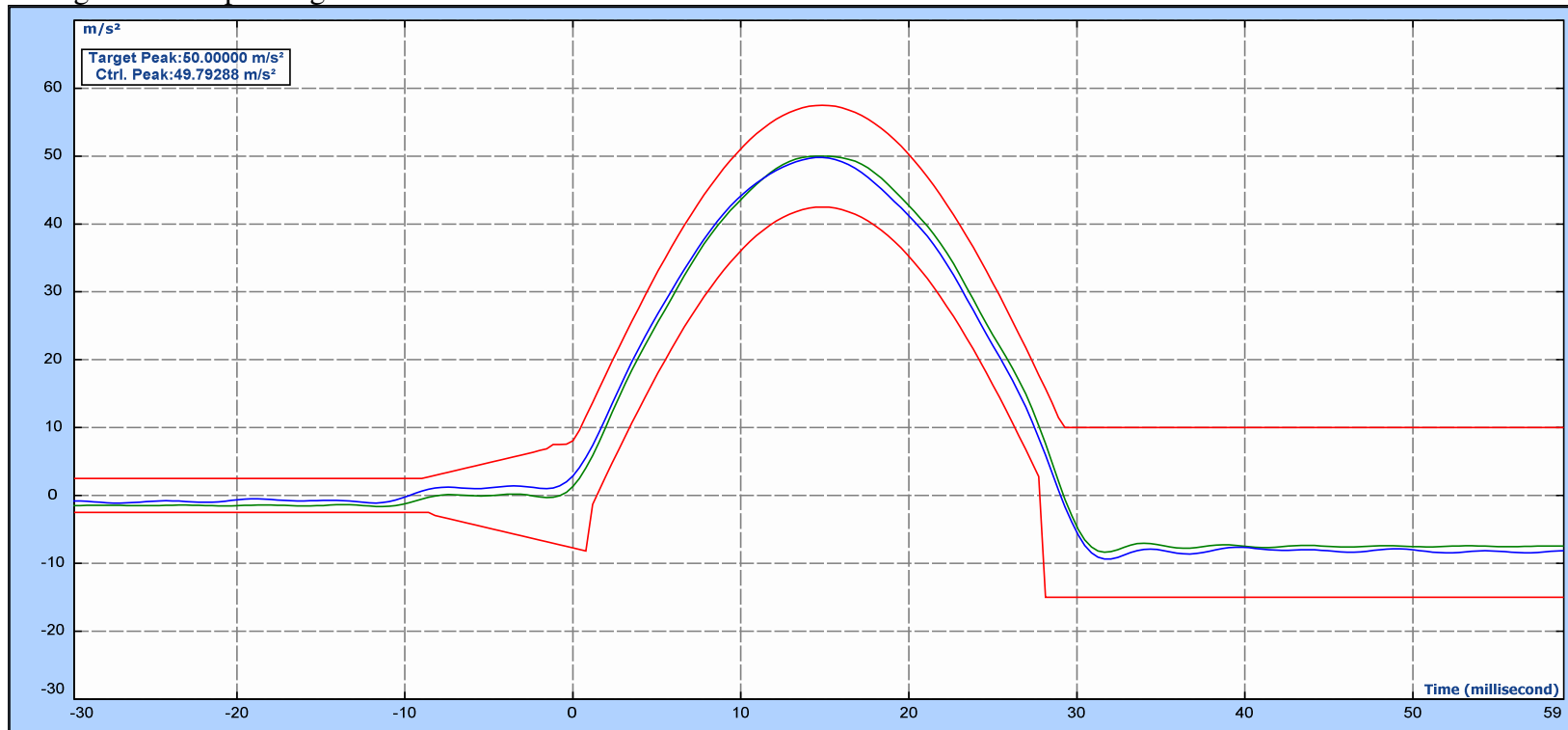
Est. Disp. : 20.82 mm Pk-Pk

Target Pk: -30.00 m/s²

Total Elapsed: 18.0

Measured Pulse width: 30.05877(ms)

+Longitudinal - operating



Level: 100.00 %

Velocity Pk: 0.516 m/s

 Control RMS: 5.351 m/s²

Full Level Elapsed: 3.0

Drive Pk: 1.454V

 Control Pk: 49.79 m/s²

Remaining: 0.0

Pulse width: 30.00 ms

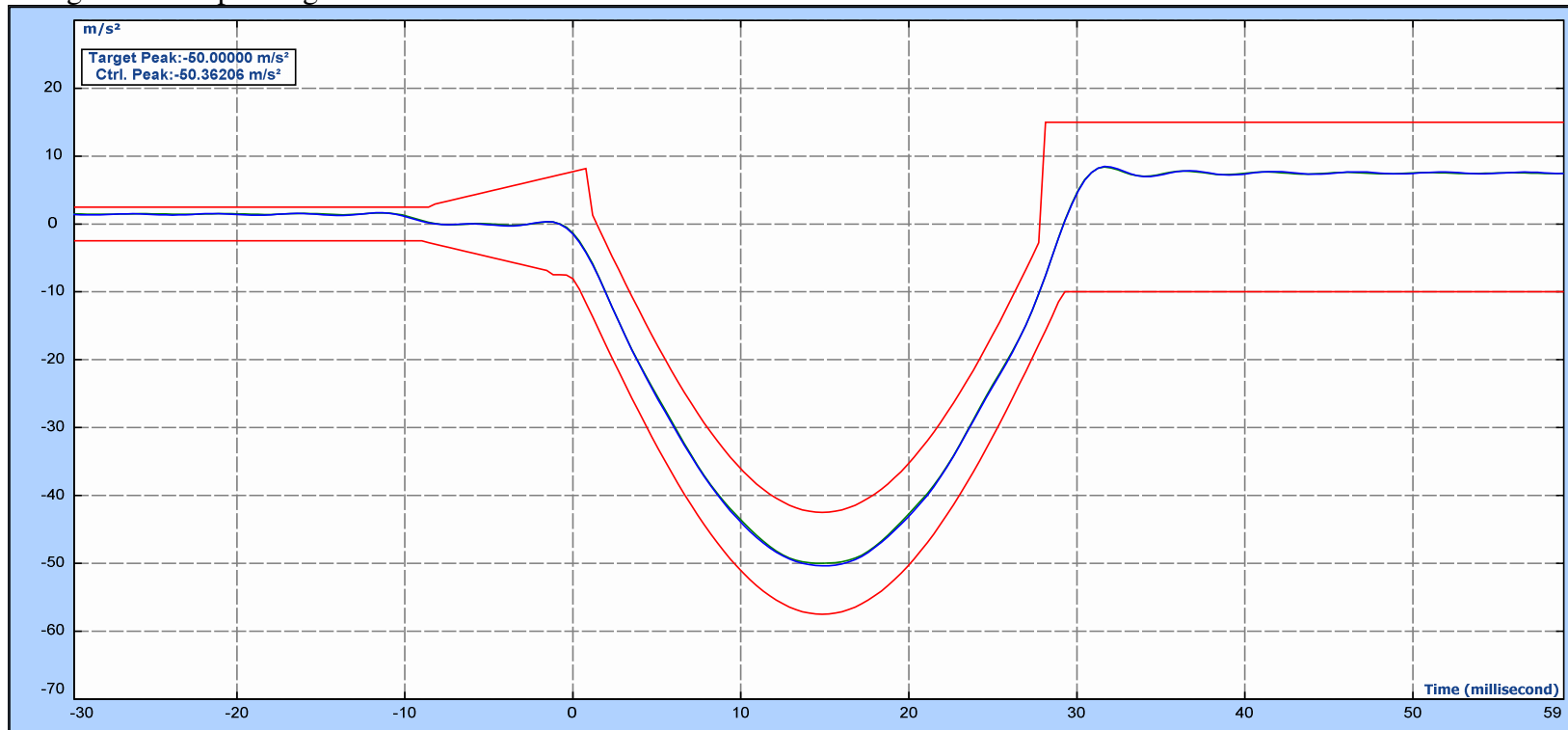
Est. Disp. : 35.33 mm Pk-Pk

 Target Pk: 50.00 m/s²

Total Elapsed: 18.0

Measured Pulse width: 38.75976(ms)

-Longitudinal - operating



Level: -100.00 %

Velocity Pk: 0.492 m/s

Control RMS: 5.359 m/s²

Full Level Elapsed: 3.0

Drive Pk: -4.9e-1V

Control Pk: -50.36 m/s²

Remaining: 0.0

Pulse width: 30.00 ms

Est. Disp. : 35.01 mm Pk-Pk

Target Pk: -50.00 m/s²

Total Elapsed: 18.0

Measured Pulse width: 30.03132(ms)

Vertical - operating



Level: 100.00 %

Velocity Pk: 0.039 m/s

Remaining: 00:00:00

Drive Pk: 0.098V

Control RMS: 1.023 m/s²

Total Elapsed: 00:21:32

Est. Disp. : 1.820 mm Pk-Pk

Target RMS: 1.003 m/s²

Full Level Elapsed: 00:20:00

Transverse - operating



Level: 100.00 %

Velocity Pk: 0.017 m/s

Remaining: 00:00:00

Drive Pk: 0.070V

 Control RMS: 0.462 m/s²

Total Elapsed: 00:22:06

Est. Disp. : 0.810 mm Pk-Pk

 Target RMS: 0.450 m/s²

Full Level Elapsed: 00:20:00

Longitudinal - operating



Level: 100.00 %

Velocity Pk: 0.027 m/s

Remaining: 00:00:00

Drive Pk: 0.103V

 Control RMS: 0.715 m/s²

Total Elapsed: 00:21:46

Est. Disp. : 1.227 mm Pk-Pk

 Target RMS: 0.700 m/s²

Full Level Elapsed: 00:20:00

-END-