chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

Series: GNSS Active combo

PART NUMBER: W3238



Features:

- Frequency:
  - L1: 1560-1610MHz
  - L5: 1175.5-1177.5MHz
- Polarization: RHCP
- LNA Gain: 38dB
- Voltage: 3.3-5.5Vdc
- Cable: 100mm with U.FL compatible connector
- Size: 25 x 25 x 12mm

Applications:

- GPS, Glonass, Galileo, Beidou, IRNSS
- Multiband satellite navigation receivers
- L1 and L5 band devices

All dimensions are in mm / inches

Preliminary

RoHS COMPLIANT

Issue: 2014P

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

For more information:

Pulse Worldwide Headquarters
15255 Innovation Drive #100
San Diego, CA 92128
USA
Tel:1-858-674-8100

Pulse/Larsen Antennas
18110 SE 34th St Bldg 2 Suite 250
Vancouver, WA 98683
USA
Tel: 1-360-944-7551

Europe Headquarters
Pulse GmbH & Do, KG
Zeppelinstrasse 15
Herrenberg, Germany
Tel: 49 7032 7806 0

Pulse (Suzhou) Wireless Products Co, Inc.
99 Huo Ju Road(#29 Bldg,4th Phase
Suzhou New District
Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

Series: GNSS Active combo

PART NUMBER: W3238

ELECTRICAL SPECIFICATIONS

Antenna Type	Patch
Frequency	L1:1560-1610 MHz L5:1175.5-1177.5 MHz
Nominal Impedance	50 Ω
Return Loss	L1<-4dB / L5<-6dB
Radiation Pattern	Omni
Gain(typical)	L1:1 / L5:1.3 dBic
Efficiency	L1:30% / L5:50%
Polarization	RHCP
LNA Gain	38± 3 dB
Operating Voltage	3.3 ~ 5.5 Vdc
Current consumption	< 15 mA
Noise figure	< 1.5 dB
Out of band rejection	L5: 800MHz >50 dB 1300MHz >50 dB L1: 1200MHz >50 dB 1800MHz >50 dB

Preliminary

RoHS COMPLIANT

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

Series: GNSS Active combo

PART NUMBER: W3238

MECHANICAL SPECIFICATIONS

Overall Length	25 x 25 x 12max mm
Weight	20g
Connector type	I-PEX Connector 20278
Cable type	1.13mm, Black
Cable length	100mm

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30 ~ +85° C
Storage Temperature	-40 ~ +90° C
RoHS Compliant	Yes

chanhvinh.com

Preliminary

RoHS COMPLIANT

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

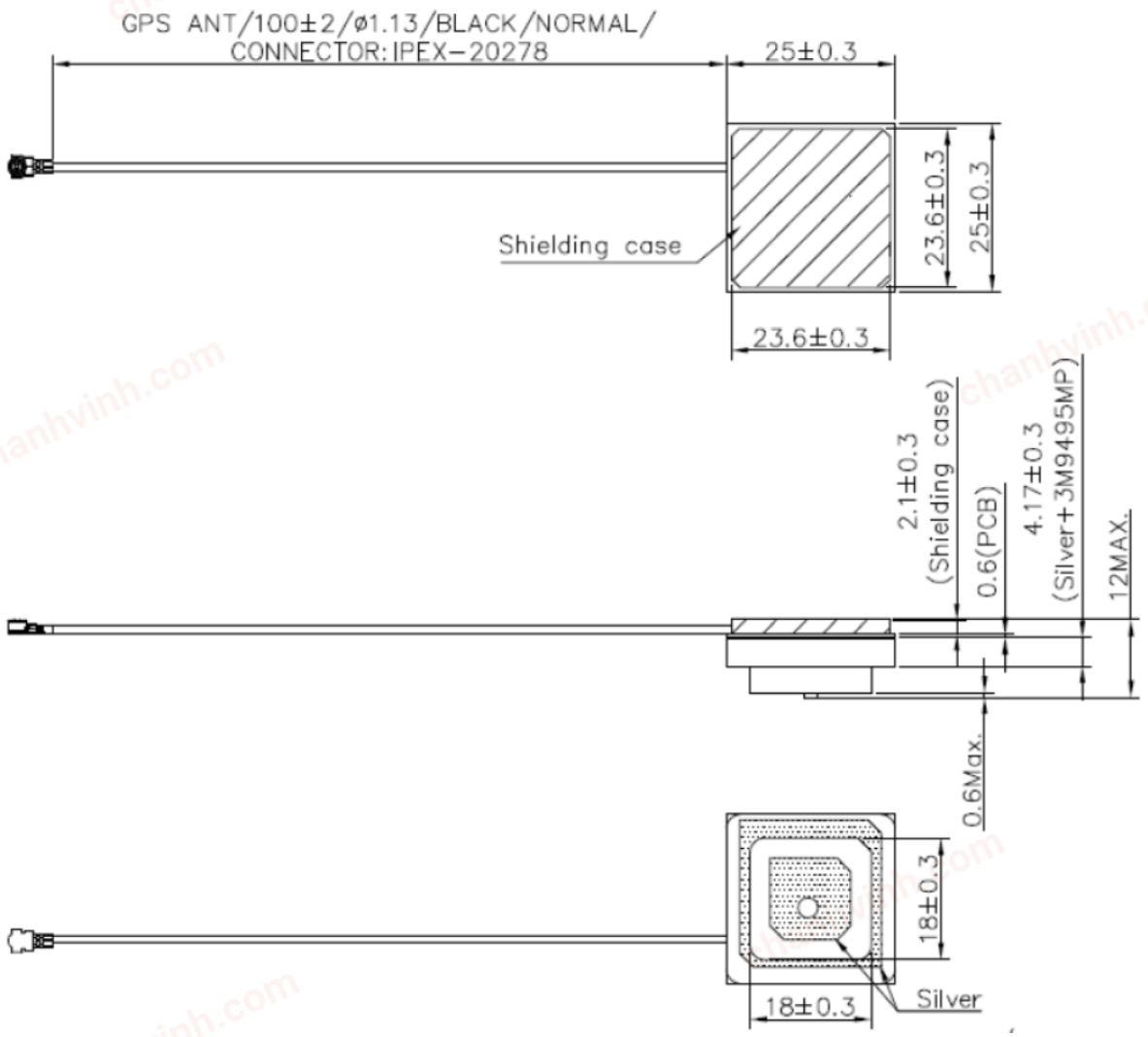
TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

Series: GNSS Active combo

PART NUMBER: W3238

MECHANICAL DRAWING



Unit : mm

Preliminary

RoHS COMPLIANT

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

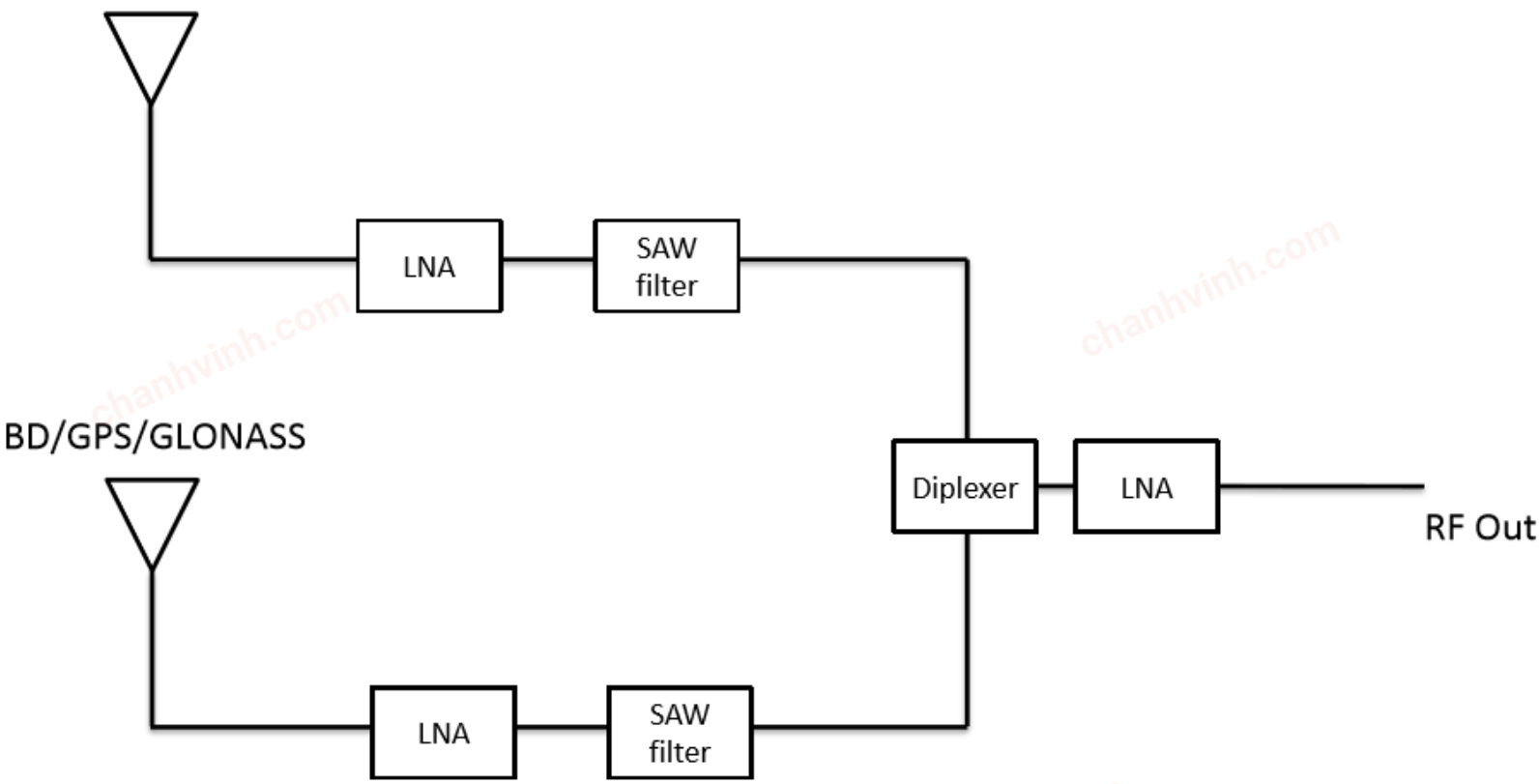
TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

Series: GNSS Active combo

PART NUMBER: W3238

LNA/Filter line-up



Preliminary

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

RoHS COMPLIANT

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

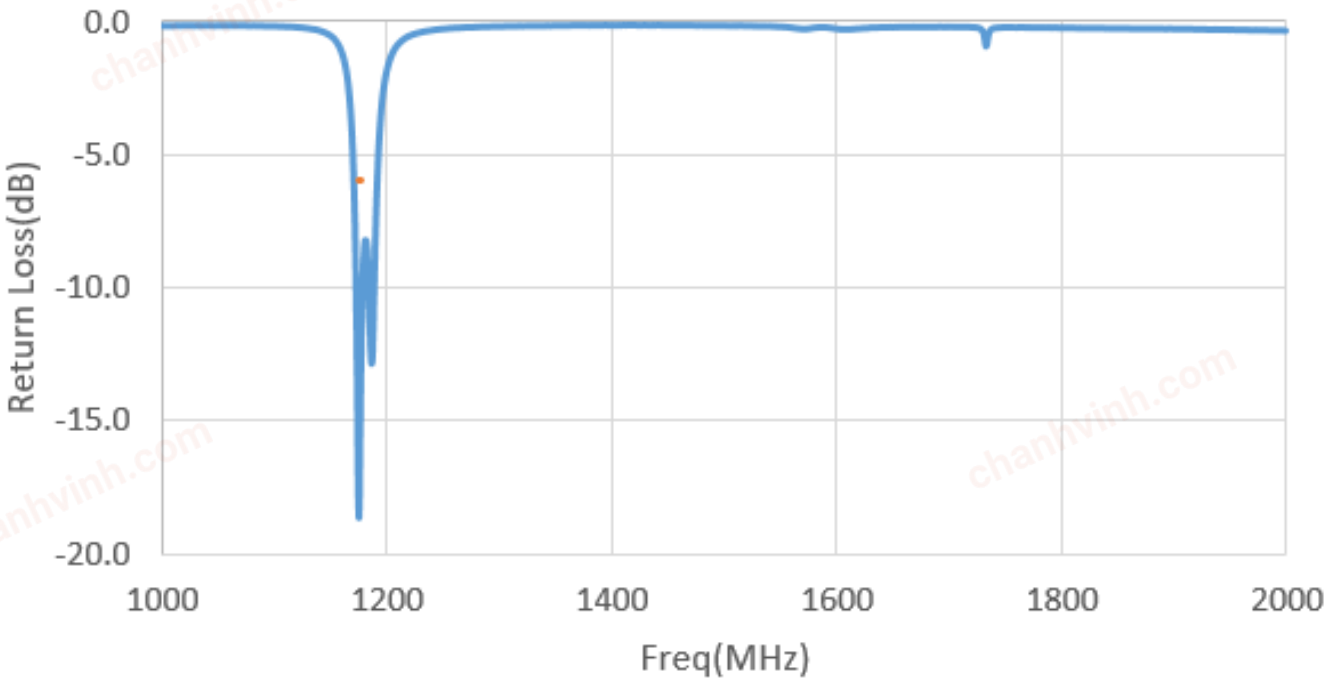
Series: GNSS Active combo

PART NUMBER: W3238

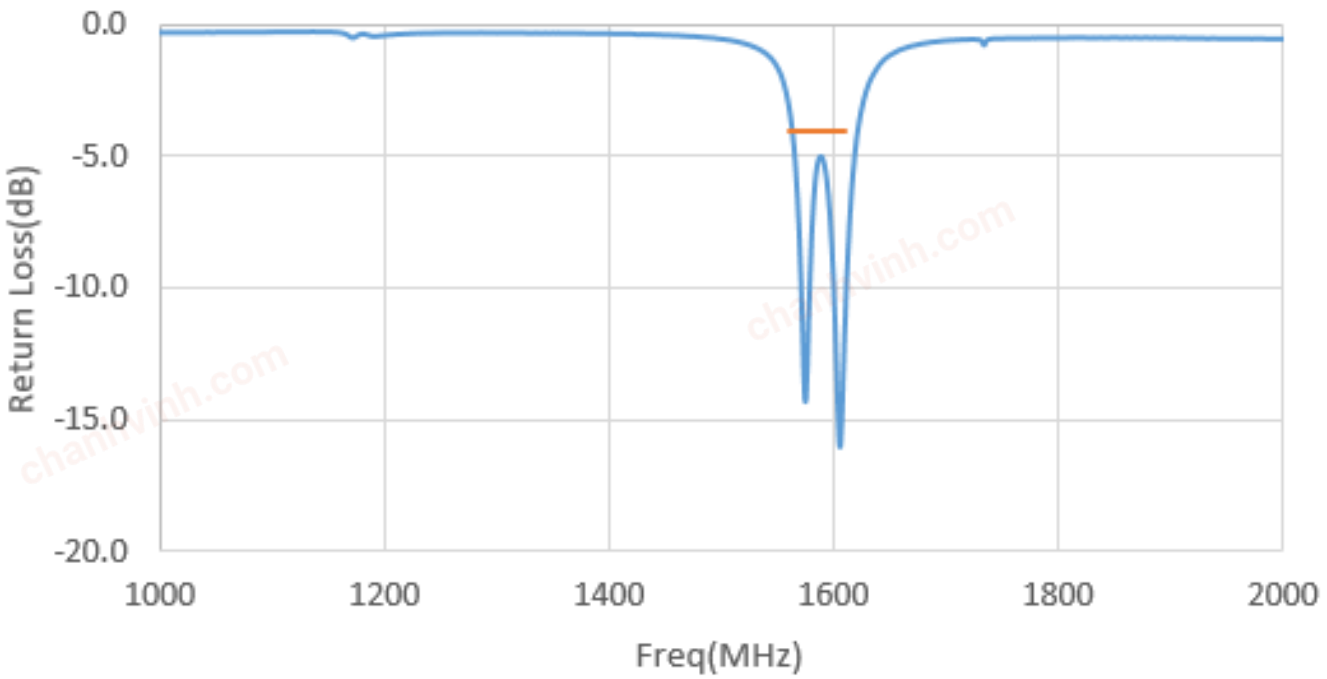
TEST SETUP

Return Loss

L5



L1



Issue:
In the ef

CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

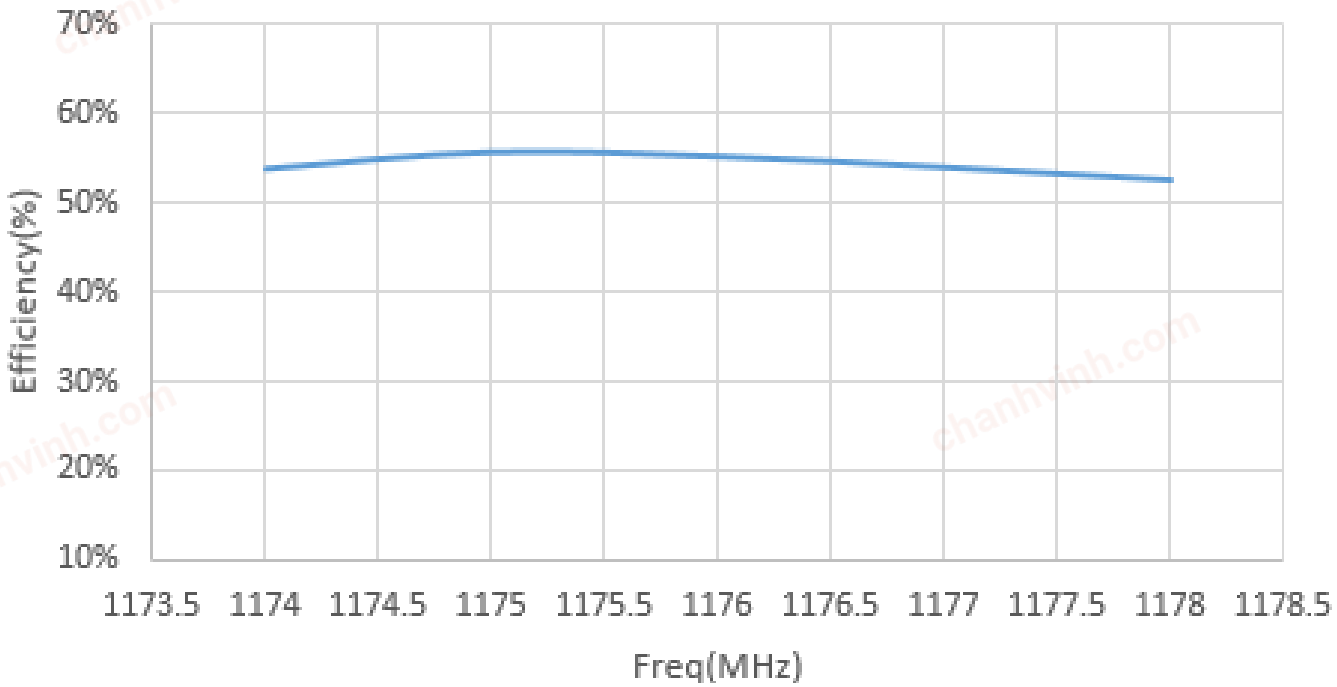
Series: GNSS Active combo

PART NUMBER: W3238

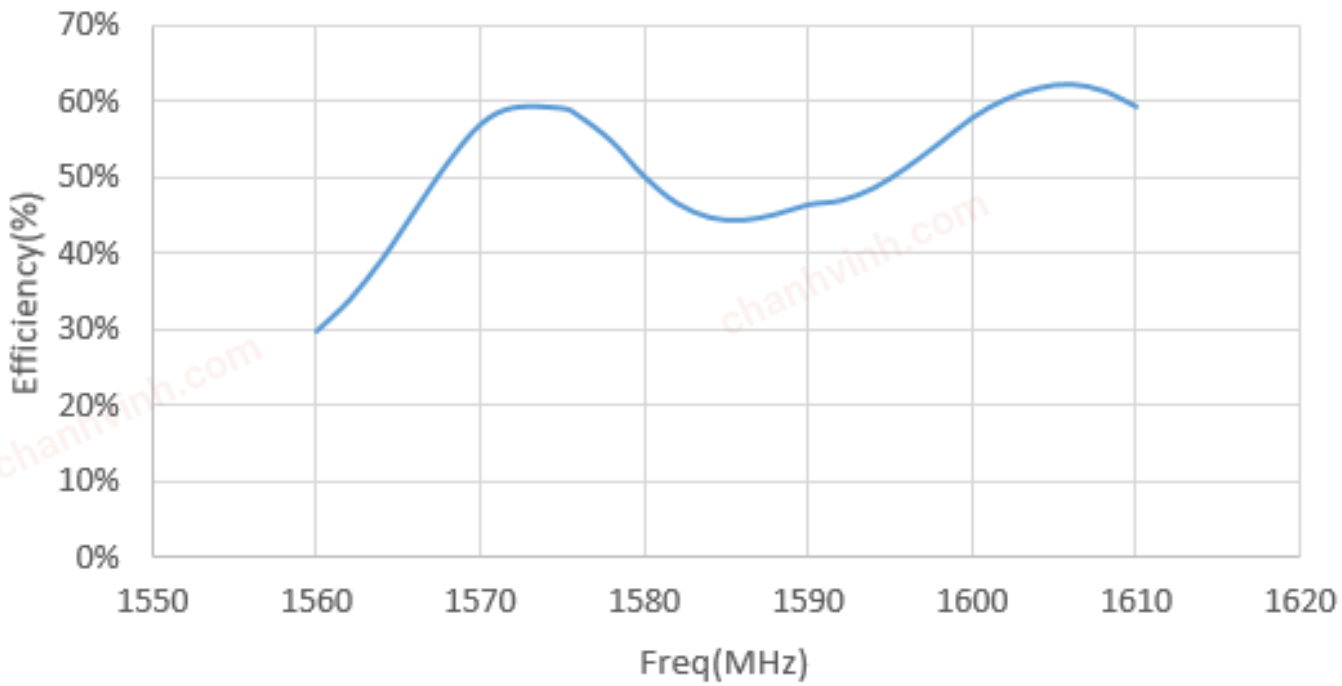
CHARTS

Efficiency

L5



L1



In the effort
CONFIDENT

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

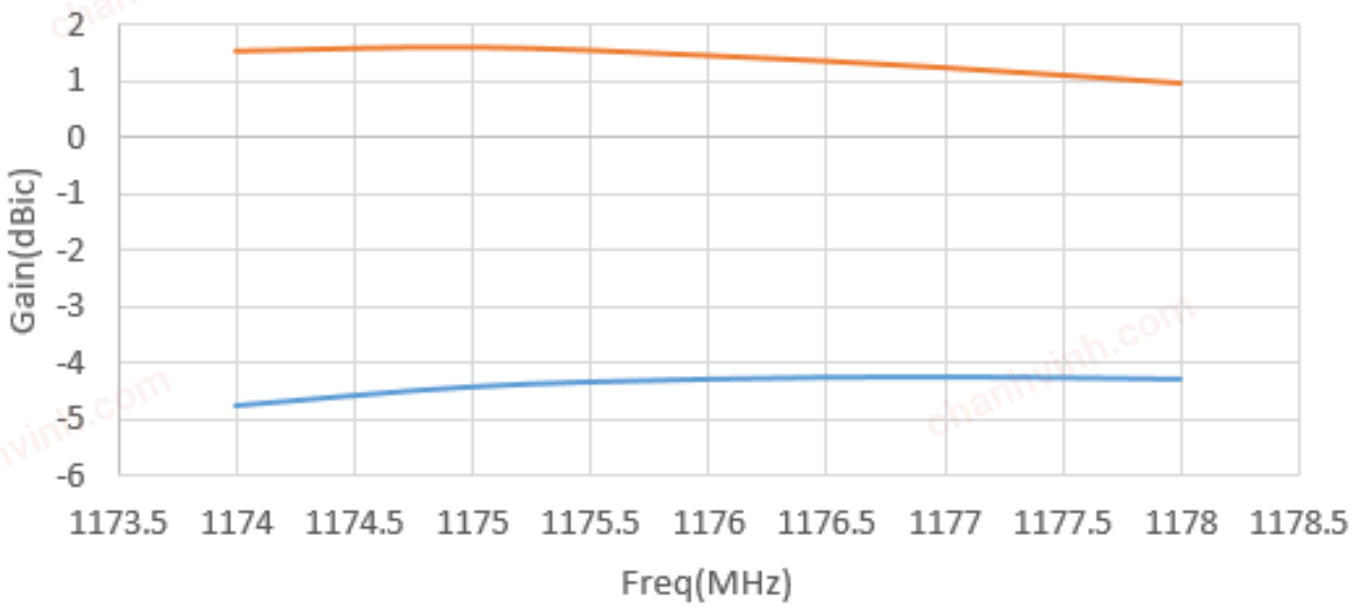
Series: GNSS Active combo

PART NUMBER: W3238

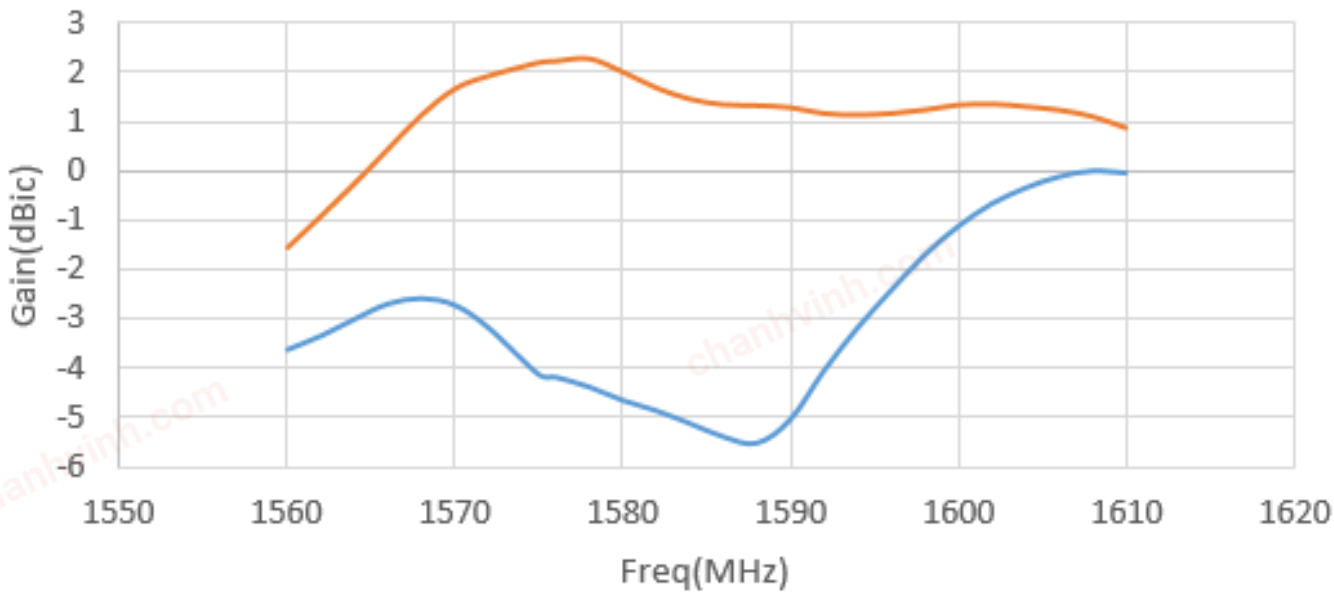
CHARTS

Gain

L5



L1



Preliminary

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

RoHS COMPLIANT

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

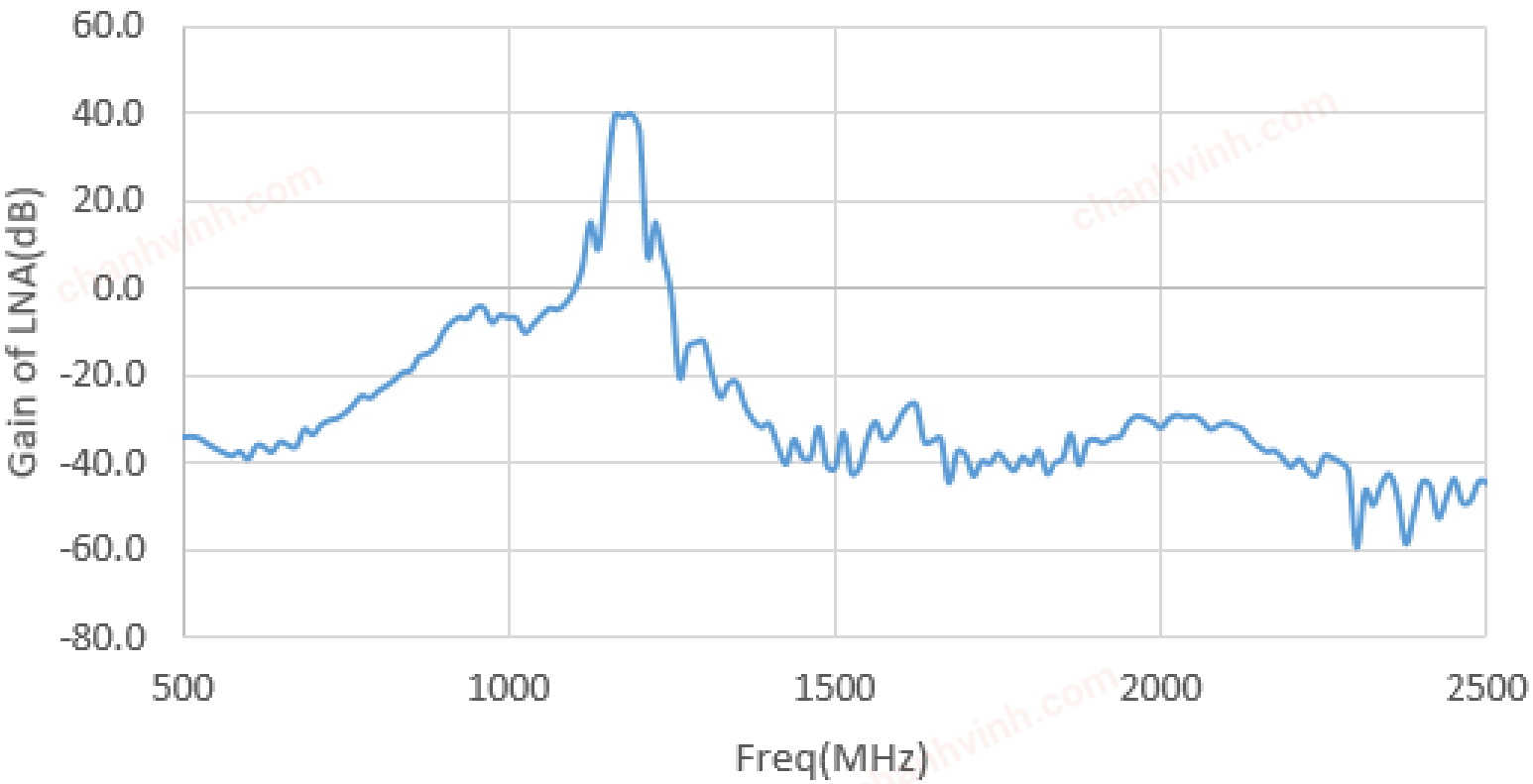
Series: GNSS Active combo

PART NUMBER: W3238

CHARTS

Gain of LNA

L5



Preliminary

RoHS COMPLIANT

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

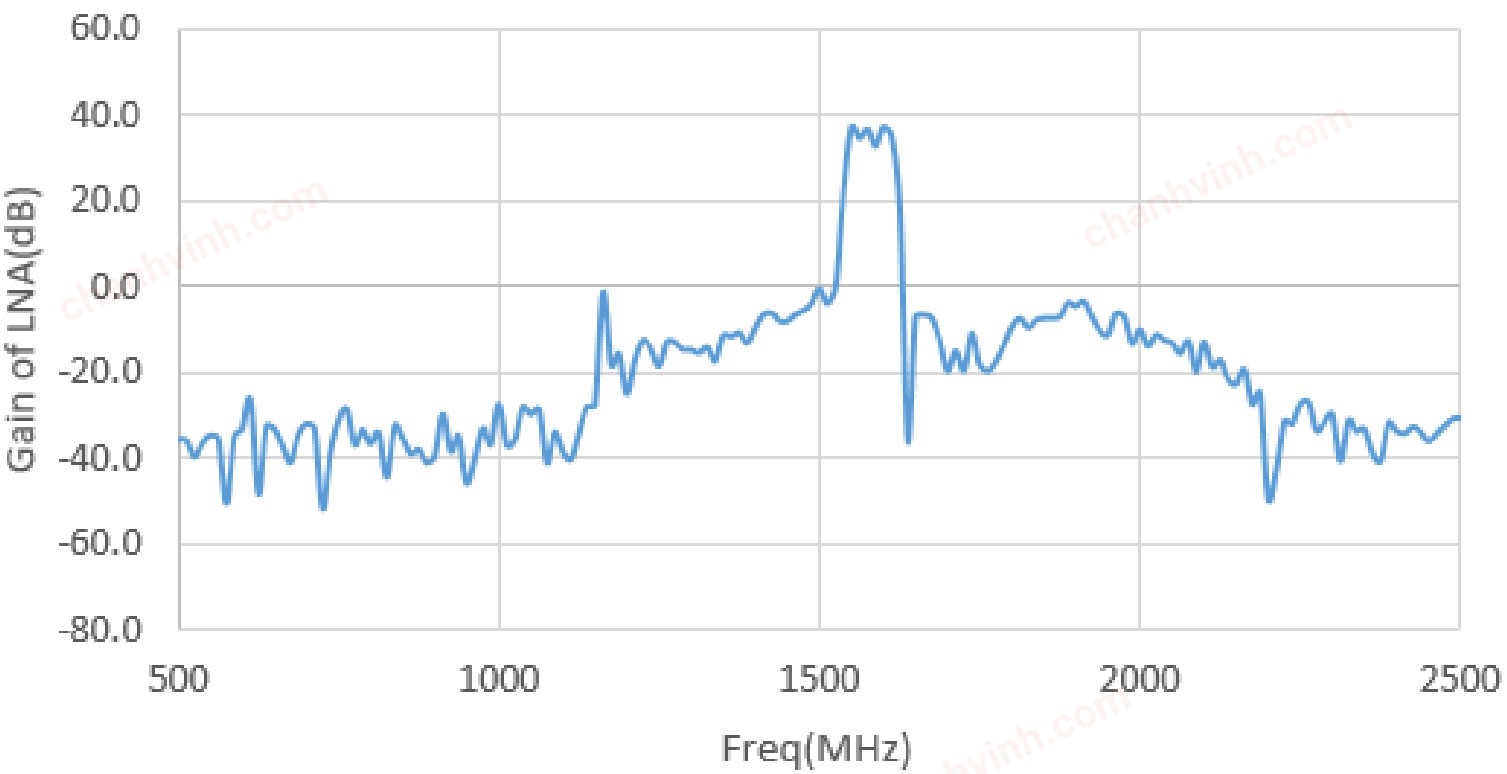
Series: GNSS Active combo

PART NUMBER: W3238

CHARTS

Gain of LNA

L1



Preliminary

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

RoHS COMPLIANT

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

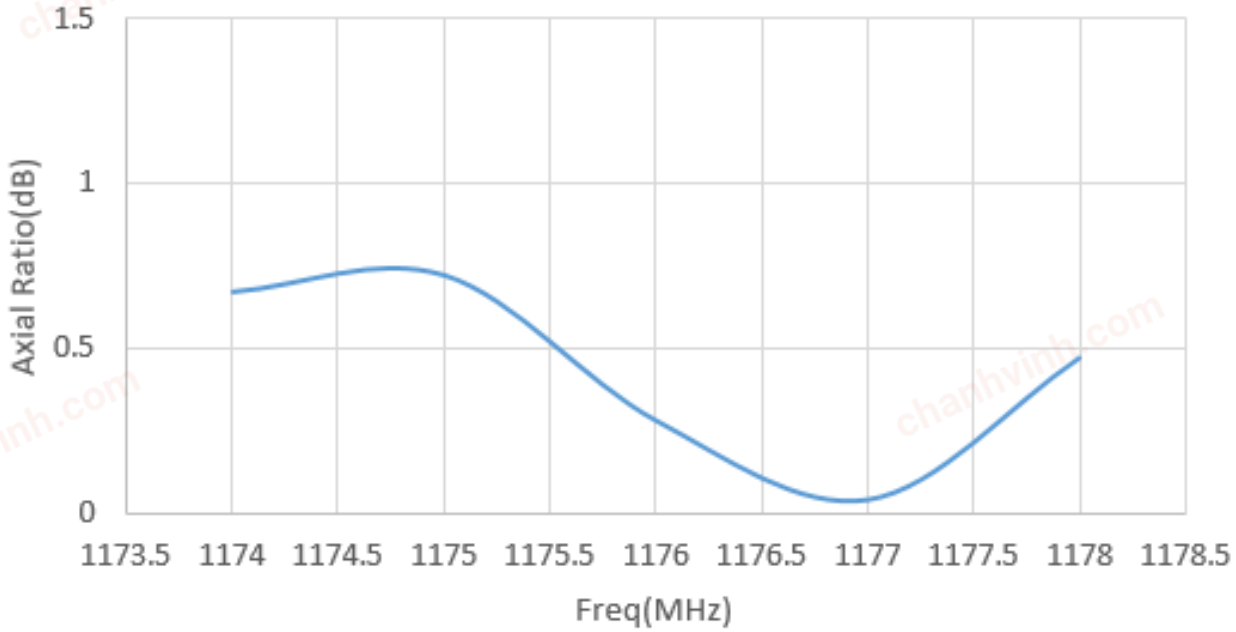
Description: GNSS L1+L5 Patch Antenna, 38dB LNA

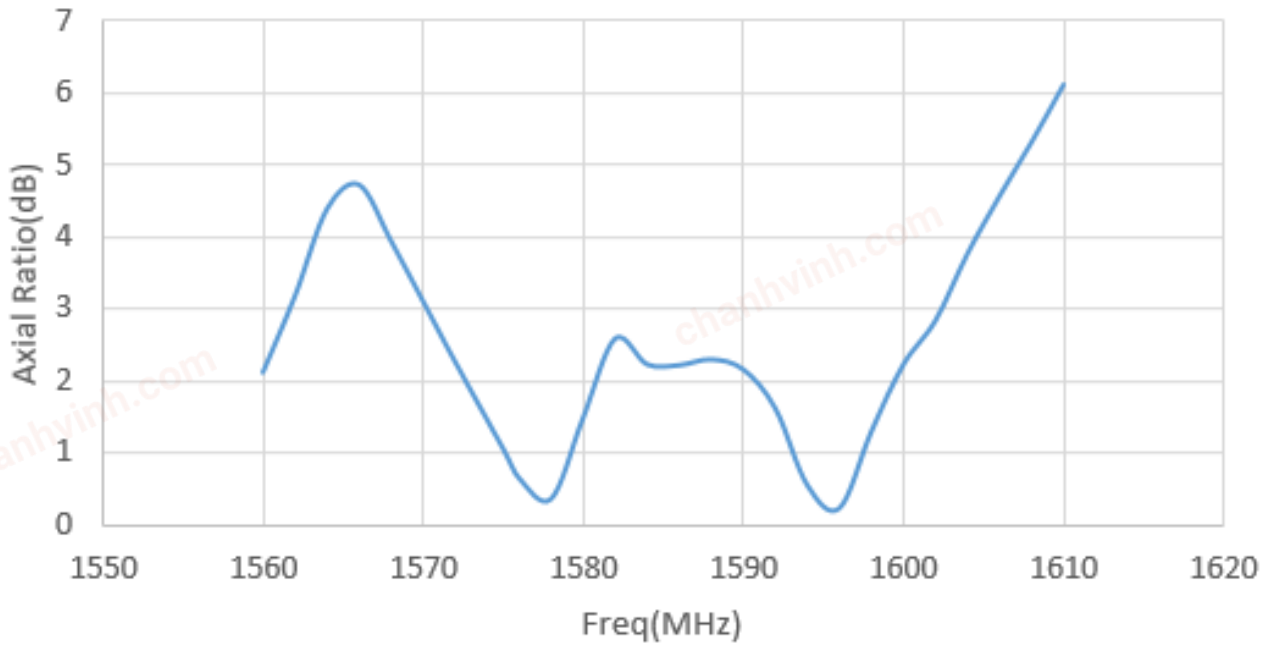
Series: GNSS Active combo

PART NUMBER: W3238

CHARTS

AR





In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

RoHS COMPLIANT

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

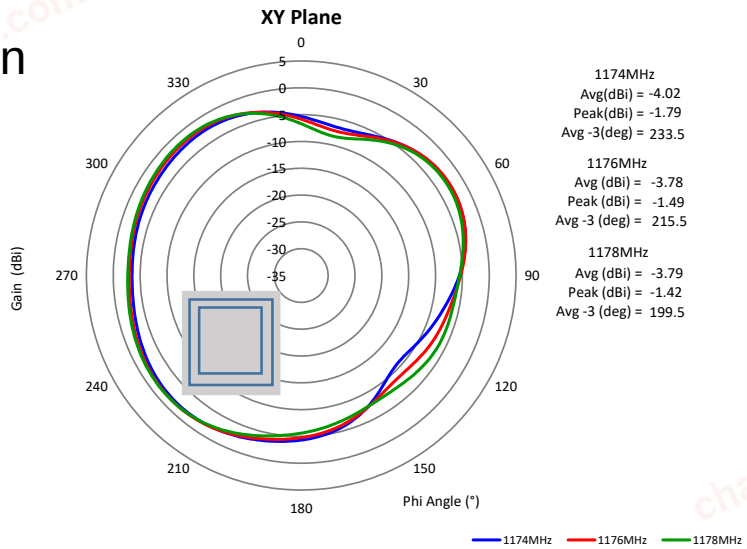
Series: GNSS Active combo

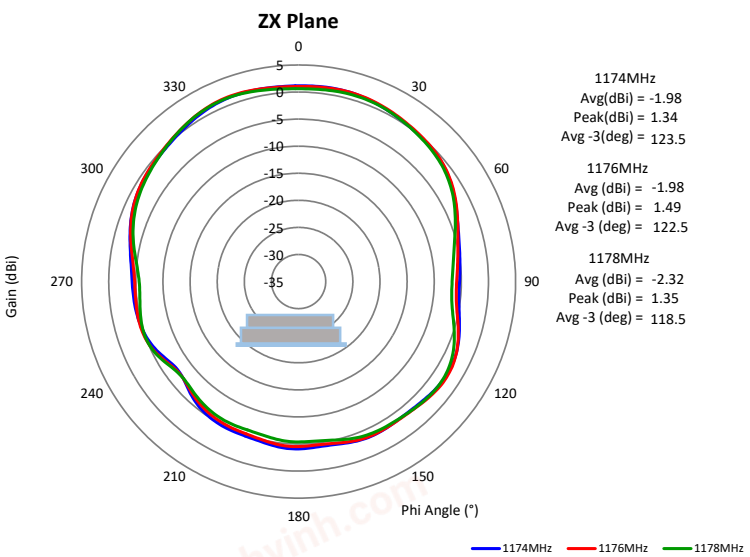
PART NUMBER: W3238

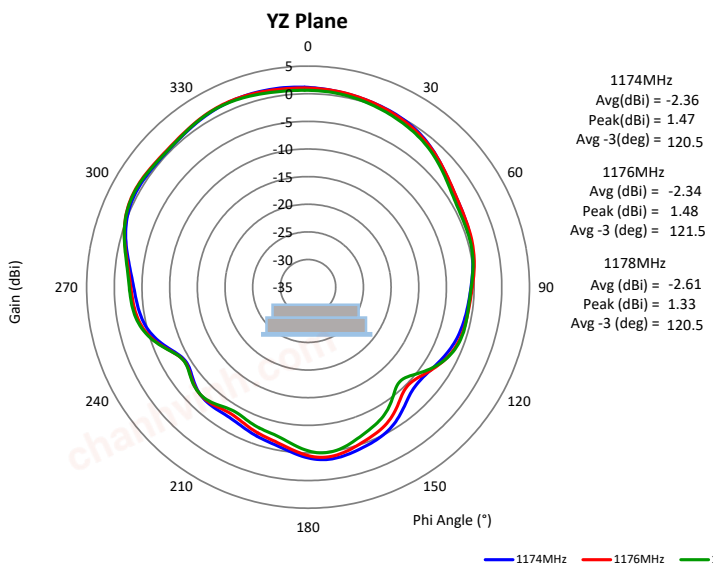
CHARTS

Radiation Pattern

L5







Preliminary

Issue: 2014P

RoHS COMPLIANT

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

chanhvinh.com

Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

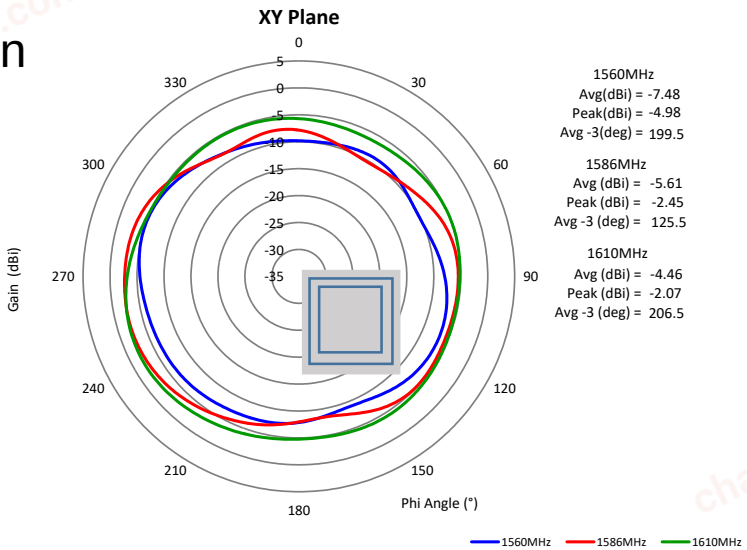
Series: GNSS Active combo

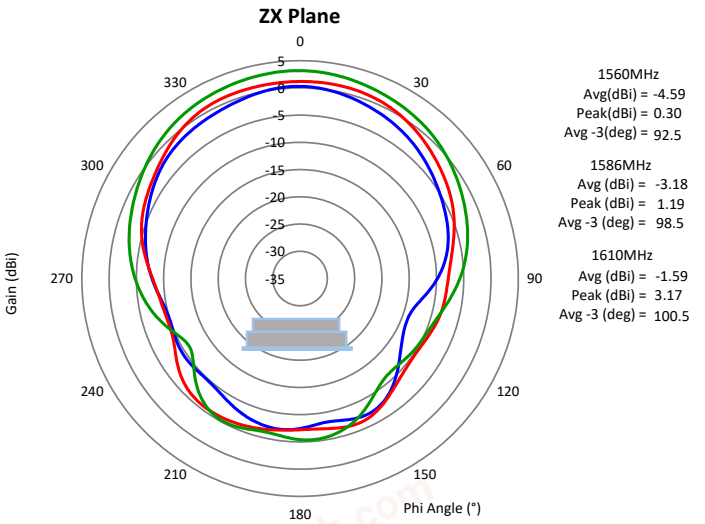
PART NUMBER: W3238

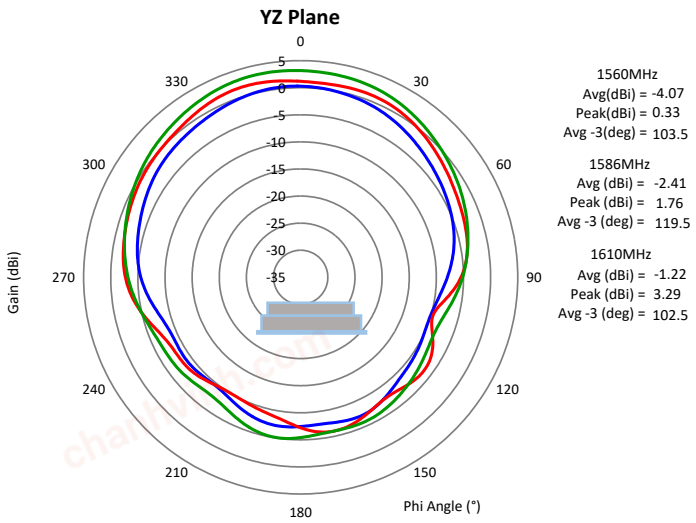
CHARTS

Radiation Pattern

L1







Preliminary

RoHS COMPLIANT

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

chanhvinh.com

Description: GNSS L1+L5 Patch Antenna, 38dB LNA

Series: GNSS Active combo

PART NUMBER: W3238

PACKAGING

1pcs/ Bag

chanhvinh.com

Preliminary

RoHS COMPLIANT

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
CONFIDENTIAL AND PROPRIETARY INFORMATION
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.