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# Timing Antenna HX-CT3603A

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Harxon Timing Antenna HX-CT3603A supports GPS, BDS and GLONASS signal reception. It's especially designed for timing, mobile, precision and military applications. It can provide truly circular response over the antenna's entire bandwidth thereby producing superior multipath signal rejection.

This antenna features a highly circular wideband patch element with a high performance Low Noise Amplifier. This configuration provides excellent axial ratio that is constant across the full frequency band.

HX-CT3603A is housed in a permanent mount industrial-grade weatherproof enclosure, and is available with a wide variety of connectors. This antenna is also customizable in radome. Conical radomes are recommended for permanent locations to ward off birds and shed ice / snow.

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## APPLICATIONS

- GPS/BDS/GLONASS Long cable Mobile/fixed Installations
- High Accuracy & Mission Critical Global Positioning
- Precision Agriculture, Mining & Construction
- Military & Security
- Law Enforcement & Public Safety

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## BENEFITS

- Excellent circular polarisation
- Long cable runs
- Excellent signal to noise ratio
- Excellent multipath rejection
- Exceptional out-of-band rejection
- Increased system accuracy
- Ideal for harsh environment

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## ANTENNA

|                 |                                     |
|-----------------|-------------------------------------|
| Antenna model   | DAS1582 (25*25*4mm)                 |
| Frequency Range |                                     |
| GPS             | L1                                  |
| BDS             | B1                                  |
| GLONASS         | G1                                  |
| V.S.W.R         | ≤2.0                                |
| Band Width      | > 30 MHz                            |
| Impedance       | 50Ω                                 |
| Gain            | 4.0dBic Based on 7×7cm ground plane |
| Polarization    | RHCP                                |

## MATERIAL

| Part Name        | SPEC                |
|------------------|---------------------|
| Antenna          | Dielectric Ceramics |
| PCB              | FR4                 |
| Shielding        | Tinplate            |
| RF Cable         | RG174               |
| RF Connector     | TNC-K               |
| Mounting bracket | Steel               |
| Shell            | ABS                 |

## LNA

|                                     |                      |
|-------------------------------------|----------------------|
| DC Voltage                          | 3V-5.5V              |
| Gain                                | 28±3dB               |
| Out band Rejection (Absolute value) |                      |
| ≥20dB (f0+100MHz)                   |                      |
| ≥20dB (f0-100MHz)                   |                      |
| Output VSWR (MAX)                   | 2.0                  |
| Noise Figure (MAX)                  | 2.0                  |
| DC current                          | 8-22mA (at 3.0-5.5V) |

## MECHANICAL CHARACTERISTIC

|                              |      |
|------------------------------|------|
| Cable - Connector Tensile    | None |
| Cable - Antenna Unit Tensile | None |

## OVERALL (COMPLETE MODULE INCLUDING RF CONNECTOR)

|                   |     |
|-------------------|-----|
| Output VSWR (MAX) | 2.0 |
| Impedance         | 50Ω |

## ENVIRONMENT CONDITION

|              |   |
|--------------|---|
| Working Temp | -40°C~+80°C                                 |
| Storage Temp | -40°C~+80°C                                 |
| Vibration    | Sine sweep 1g (0-p)<br>10~55~10Hz each axis |
| IP Code      | IPX6  |

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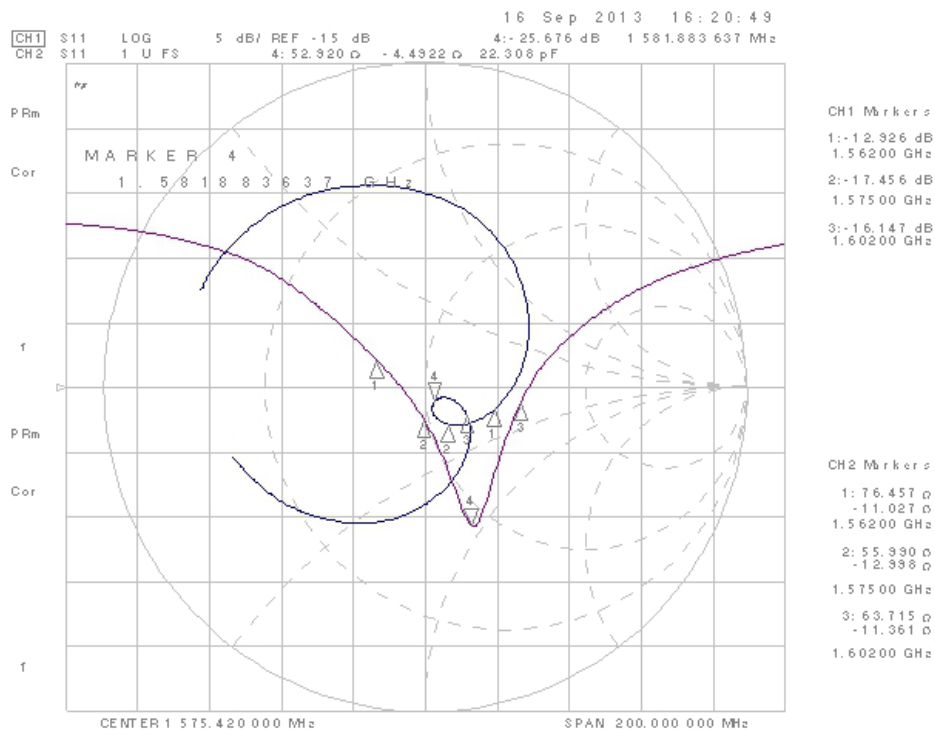
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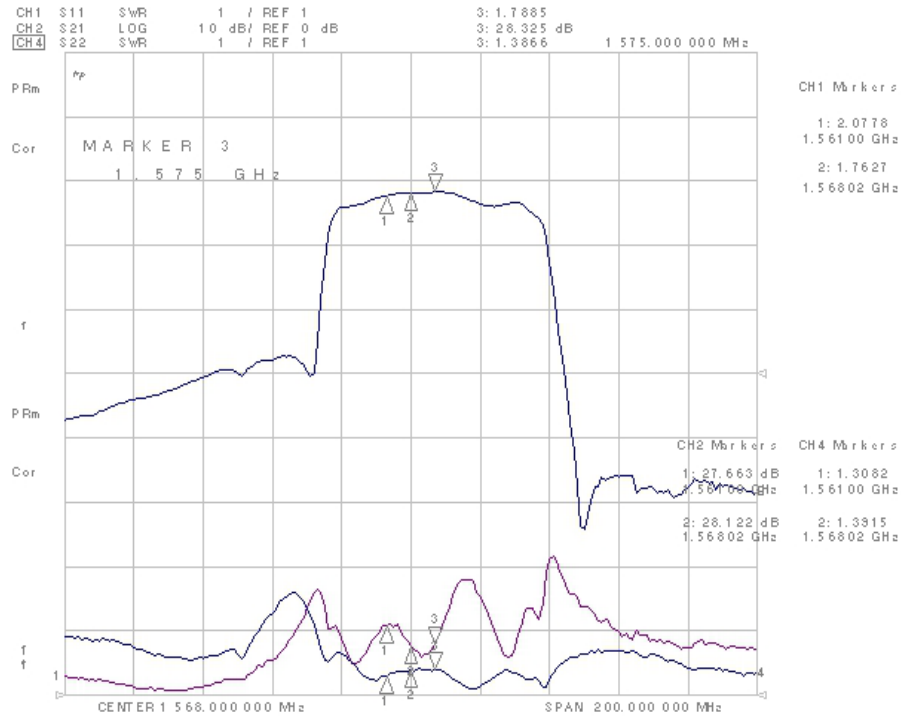
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## PATCH TEST CURVE



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## LNA TEST CURVE



Test condition: DC 5.0V

## STRUCTURE(unit: mm)

