

GPS/GLONASS Active Antenna

Model: AGGL051



1. Part Number AGGL051(UFL-30MM) - 30mm cable uFl/IPX connector

2. Dimension (Unit: mm)



NEW ZEALAND OFFICE

Unit 3, 59 Paul Matthews Road Rosedale, Auckland 0632 New Zealand Phone: +64 9 415 9150 Fax: +64 9 415 9360 www.glyn.co.nz

AUSTRALIAN OFFICE

33, 10 Gladstone Road Castle Hill, NSW Sydney, Australia Phone: +61 2 9889 2520 Fax: +61 2 9889 2954 www.glyn.com.au

3 Electrical Characteristics

3.1 Dielectric Antenna

| Form 1 | | | |
|--------|------------------------|---------------------|------------------------------|
| No. | Item | Specifications | Post Environmental Tolerance |
| 1 | Center Frequency (MHz) | 1590 MHz/1575.42MHz | ±3 MHz |
| 2 | Band Width (MHz) | \pm 5 MHz | $\pm 1 \text{ MHz}$ |
| 3 | V.S.W.R (in BW) | 1.5 ÷ 1 | — |
| 4 | Gain (Zenith) | 3 dB | $\pm 0.5~\mathrm{dB}$ |
| 5 | Polarization | RHCP | — |
| 6 | Impedance | 50 Ω | _ |

3.2 LNA/Filter

Form 2

| No. | Item | Specifications | Post Environmental Tolerance |
|-----|-----------------------------|--|------------------------------|
| 1 | LNA Gain | 28 ± 2 dB | ± 2.5 dB |
| 2 | Noise Figure | 1.5 dB | _ |
| 3 | Filter Out Band Attenuation | 12dB Min f0+50MHz 16dB Min f0-50MHz | \pm 1.0 dB |
| 4 | DC Voltage | 2. | 2~5 V |
| 5 | DC Current | 5~ | 15 mA |

3.3 Mechanical

Form 3

| No. | Item | Specification |
|-----|-------|---------------|
| 1 | Cable | RF1.13 |

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| 2 | Connector | IPEX/uFL or others |
|---|-----------|--------------------|
| 3 | Mounting | Internal |

4 Reliability

Condition: Temperature: $40\pm5^{\circ}$ C

Load: DC=5V \pm 0.5 V Quantity: 2000pcs Sustained Time: 480h

5 Environmental Specifications

Post Environmental Tolerance (Refer to the form 1~2)

Condition: Temperature range 25 ± 3 °C

Relative Humidity range 55~75%RH

Operating Temperature range -40℃~+85℃

Storage Temperature range -40°C~+100°C

5.1 Moisture Proof

The device should satisfy the electrical characteristics specified in form 1~2 after exposed to the temperature 40 ± 2 °C and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

5.2 Vibration Resist

The device should satisfy the electrical characteristics specified in form 1~2 after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X , Y and Z directions. 5.3 Drop Shock

The device should satisfy the electrical characteristics specified in form 1~2 after dropping onto the hard wooden board from the height of 30cm for 3 times each facet of the 3 dimensions of the device.

5.4 High Temperature Endurance

The device should satisfy the electrical characteristics specified in form $1\sim2$ after exposed to temperature 80 ± 5 °C for 24 ± 2 hours and $1\sim2$ hours recovery time under normal temperature.

5.5 Low Temperature Endurance

The device should also satisfy the electrical characteristics specified in form 1~2 after exposed to the temperature $-40^{\circ}C \pm 5^{\circ}C$ for 24 ± 2 hours and to 2 hours recovery time under normal temperature. 5.6 Temperature Cycle Test

The device should also satisfy the electrical characteristics specified in form $1\sim2$ after exposed to the low temperature -25° C and high temperature $+85^{\circ}$ C for 30 ± 2 min each by 5 cycles and 1 to 2 hours recovery time under normal temperature

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