

GT-1A Airborne Gravimeter Specifications

Gravimeter

Range of gravitational acceleration measurement	9.76 to 9.84 m/sec ²
Dynamic range of disturbing accelerations	
a) fine range	± 0.25g
b) coarse range	± 0.50g
Drift per 24 hours (corrected)	< 0.03 mGals
Error in gravity anomaly estimation (RMS) up to 12 Hours on test table (static error)	
a) coarse channel	0.3 to 0.5 mGals
b) for autonomous operation up to 12 Hours for ground and airborne - fine channel	0.2 to 0.3 mGals
Accuracy of scale factor determination	10 ⁻⁴
Attitude limits	
a) roll ± 45°	
b) pitch	± 45°
Operating temperature	+5°C to +50°C
Vibration tolerance between 5 to 35 Hz	
Power consumption	
a) operating	150 W at 27Vdc
b) standby (maintaining temperature)	50 W at 27Vdc
Weight including rotation table and shock mount	136 kg
Dimensions including rotation table and shock mount	Ø 600 x 900 mm
Service life	30,000 hours

Survey

Error in gravity anomaly estimation (RMS) under the following conditions:

- vertical acceleration < 0.5 g;
- correct installation of gravimeter and GPS antenna;
- dual frequency GPS receivers of at least 2 Hz;
- minimum 6 visible satellites;
- PDOP < 2.5; and baseline < 100 km;

a) with 0.01 Hz cut-off	0.6 mGals
b) with 0.0125 Hz cut-off	1.0 mGals



Gravity on the Move - for detailed information on the GT-1A airborne gravimeter, please visit the Canadian Micro Gravity Ltd website: www.canadianmicrogravity.com

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