

Reaction Wheel Assembly (RWA05)

The RWA05 is a reaction wheel assembly for satellites with integrated fibre optical gyro. The integrated gyro enables precise speed, angular rate and position control loops. The RWA05 comes in two versions: a high-torque and a low-torque variant.



REACTION WHEEL ASSEMBLY (RWA05)

Characteristics	RWA05	RWA05-24
Momentum	0.5Nms	
Velocity	Min $\pm$ 500 rpm – Max $\pm$ 5000 rpm, $\pm$ 2 rpm Accuracy	
Net Torque	16.0mNm @ 500 rpm 14.2mNm @ 5000 rpm	8.6mNm @ 500 rpm 6.8mNm @ 5000 rpm
Power Supply	5V Electronics 17 - 32V Motor	5V Electronics 7 - 24V Motor
Power Consumption	0.5W @ 5V 0.07A @ 3000RPM 0.8A @ max. torque	0.5W @ 5V 0.15A @ 3000RPM 0.9A @ max. torque
Command Interface	UART RS422	
Dimensions	105.0 x 106.6 x 109.5 mm ³	
Temperature	-30°C to +50°C (Storage) -20°C to +40°C (Operation)	
Design Life	5 years LEO	
Space Heritage	TRL9	
Radiation Test (Co60)	30krad	
Mass (kg)	1.70 (RW + WDE + Gyro), 1.55 (RW + WDE)	

Options included - with gyro, without gyro, only gyro clusters. For further details, please reach out to us