

**Tamam Magnetotorquer P/N 1286-XXXX – Main Specification**

**Scope**

The magnetotorquer is an actuator, controlled by the host system to activate torque on the satellite body by interaction with the earth magnetic field.

**Main Features**

The magnetotorquer is an electromagnet, the internal magnetic dipole of which is induced by the excitation current to a required value. The supplied torque(T) is the vector product of the magnetic dipole (M) and the earth magnetic flux density (B).

**Specifications**

The following table summarizes the main characteristics of a product within the P/N 1286-XXXX family.

The parameters are maximum values within the operating temperature range.

Parameter	Unit	Specification P/N 1286-XXXX				
		0008	0011	0009	0010	0003
Magnetic Dipole Moment, linear range	Am <sup>2</sup>	300	190	140	70	10
Magnetic Dipole Moment, Residual	Am <sup>2</sup>	1.8	1	1	0.5	0.08
Time constant	msec	280	316	250	90	160
Power consumption @ max. linear range	W	6.5	11	6	2.5	1.1
Length	mm	844	712	650	600	270
Weight	kg	4.95	3.1	3.3	1.7	0.26
Temperature range	°C	-30 to +70	-40 to +55	-35 to +70	-35 to +70	-25 to +60
Sine vibration	g	20g up to 100Hz	20g up to 100Hz	20g up to 100Hz	20g up to 100Hz	15g up to 100Hz
Random vibration	grms	14.7	30.1	18	21.4	28.2
Mechanical shock	g	100Hz, 20g 2000-10000Hz, 3000g	100Hz, 20g 2000-10000Hz, 2000g	10Hz, 4g 2000-10000Hz, 900g	100Hz, 60g 2000-10000Hz, 3000g	100Hz, 20g 1000-10000Hz, 1000g

Notes:

1. Environmental conditions are finalized per application.
2. Other types within the above table may be required by the satellite manufacturer.