

AC5 MATERIALS LIST

Part Number	Description	Shape	No. Used (Per Satellite)	Material	Dia or Width (m)	Length (m)	Height (m)	Area (m²m)	Wall/Core Thickness (m)	Face Sheet Thickness (m)	Mass ea. (grams)	Mass ea. (kg)	Area/mass (m³m/kg)
AC5-4201-1	Battery Bracket	Box	2	6061-T6	0.09	0.013	0.026	0.001282667			12.2	0.012	0.105
AC5-2201-1	Reaction Wheel Block	Box	1	6061-T6	0.028	0.028	0.029	0.000802667			15.0	0.015	0.054
AC4-7003-1	Antenna	Plate	2	Copper/Ceramic	0.05	0.04	0.003	0.000756667			16.1	0.016	0.047
18650/CR123A	Batteries	Cylinde	1	SS	0.018	0.065	-	0.00117			45.0	0.045	0.026
AVO	Beacon	Cylinde	1	varies	0.026	0.04	0.025	0.000896667			22.7	0.023	0.040
PSSC2-3300-1	Circuit Boards	Plate	1	FR4	0.056	0.056	0.002	0.00112			30	0.030	0.037
ADIS16488	ADIS	Box	1	varies	0.044	0.047	0.014	0.001114			48.5	0.049	0.023
AC5-1101-1	Lids	Plate	1	6061-T6	0.105	0.096	0.004	0.003628			85.8	0.086	0.042
AC5-4001-1	Payload Interface Plate	Plate	1	6061-T6	0.097	0.097	0.006	0.003524333			92.3	0.092	0.038
AC5-2700-1	STIM	Box	1	6061-T6 and other	0.053	0.048	0.026	0.001723333			110	0.110	0.016
AC5-5000-1	Pea Placer	Cylinde	1	6061-T6/Vespel/Stainless	0.043	0.037	-	0.001591			117.2	0.117	0.014
AC5-3000-1	EM Assembly	Box	1	FR4	0.078	0.089	0.047	0.004930333			275	0.275	0.018
AC5-4000-1	Payload Assembly	Box	1	FR4/ 6061-T6/Glass	0.097	0.097	0.092	0.009085667			573	0.573	0.016
AC5-2001-1	Body Structure	Box	1	6061-T6	0.105	0.105	0.165	0.015225			582.0	0.582	0.026
CSTT-1	CSTT cover	Plate	1	Varies	0.1	0.083	0.006	0.003132667			20.0	0.020	0.157
AC5-5100-1	Pea	Cylinde	9	Brass/Glass	0.008	0.013	-	0.000076			1.2	0.001	0.063

- Instructions
1. Lump together identical items (like circuit boards, batteries, antenna, lids)
 2. Get smallest area from the L, W, H dimensions (this is the worst case orientation)
 3. For tether collision assessemnt, Use AC5 body and one end and Tether cover (8x8x0.5cm, 20 grams) as other (tether is 75mm wide, by like 0.1mm thick and 12 meters long)

NOTES:

1. Headings for subassemblies are in BOLD
2. Purchased items are in shaded Part Number cells.