

EXPERIMENTAL LICENSE REQUEST FOR CELTEE-1 (1U CUBESAT) SPACE EXPERIMENT

Subtitle

I. Summary

M42 Technologies located in Seattle Washington is requesting a experimental license for a small satellite (1U CubeSat) the CubeSat ELT Evaluation Experiment 1 (CELTEE-1). CELTEE-1 will be ejected from a CubeSat dispenser into a planned orbit of 580 x 550 km at 98 degrees. The experiment will operate for a maximum duration of 6 months.

The purpose of this experiment is to evaluate M42Tech's ELT low-cost CubeSat tracking technology. The CELTEE-1 spacecraft periodically emits a signal that includes CELTEE-1's GPS position. This signal will be received by the Earth station from which orbital parameters will be computed. The transmission will continue until onboard battery power is depleted or the spacecraft is commanded to stop transmissions.

II. Detailed Information for Request

Space Station

Transmitter Manufacturer:	M42 Technologies
Number of Units:	1
Experimental (Y/N)?	Yes
Operating Frequency:	923.0 - 923.5 MHz
Frequency Tolerance:	less than 0.01 %
Emission Designator:	163K84G1DBC
RF Output at Terminal:	-17.5 dBW
EIRP from Antenna:	-14.0 dBW
Antenna:	Half-plane omnidirectional (patch antenna)

Latest Schedule Information

Launch Date:	September 15, 2016
Request Date:	August 15, 2016

24-hour Contact Information

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Anticipated Orbital Parameters

Satellite inserted into 580 x 550 km, 98° inclination orbit, will decay naturally

Onboard imagers or imaging operations

None.

Transmitting Earth Station

Operating Frequency:	923.0 - 923.5 MHz
Frequency Tolerance:	less than 0.01 %
Emission Designator:	163K84G1DBC
RF Output at Terminal:	14.0 dBW
EIRP from Antenna:	32.0 dBW
Antenna:	Laird Tech GD9-18 18 dBi 900 MHz grid dish antenna
Latitude:	47.660125°
Longitude:	- 122.38636°