

EXHIBIT B - TECHNICAL INFORMATION

Applicant Name: AST & Science, LLC
Applicant FRN: 0027863257

Legal Contact Details

Name of Contact:	Tim Bransford
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Technical Contact & Stop Buzzer Operator¹

Name of Contact:	Federico Fawzi
Contact Details:	Vice President Network Infrastructure & Critical Satellite Systems Phone: 432-276-3465 Email: frequencycoordinator@ast-science.com

Antenna One – Phased Array

Number	5
Manufacturer	AST SpaceMobile
Size (meters)	~8m x 8m
Polarization (e.g. RHCP, LHCP, dual)	Dual Linear
Single or Multibeam	Multibeams
Traffic Type (e.g. payload, telemetry, telecommand)	Payload

Geographic Scope of Operations	Mobile; 24 km radius around center point
Center Coordinates	Lat: 52.23966 / Long: -3.8205

	Transmit
Frequency Range	937.1-942.1 MHz
Channel Bandwidth	1.4 MHz, 3 MHz, and/or 5 MHz
Emission Designator	1M43G1W 3M00G1W 5M00G1W
Polarization	Dual Linear

¹ Mr. Fawzi will hold “kill switch” or “stop buzzer” authority for all transmitters involved in the instant experimentation.

Beamwidth	2.8 to 5.2 degrees dependent on ground elevation angle
Antenna Gain (dBi at a specified frequency)	31 to 35 dBi dependent on ground elevation angle at 890 MHz frequency
Max EIRP Per Carrier (dBW)	50.5 dBW
Max EIRP Density per Carrier (dBW/kHz)	11 dBW/kHz

Transmitting Beams Max. Power Flux Density (dBW/m²/MHz)

Peak Gain	0°-5°	5°-10°	10°-15°	15°-20°	20°-25°	25°-90°
35 dBi	-118	-114	-108	-96	-90	-85

Antenna Two – V-band

Number	5
Manufacturer	AST SpaceMobile
Size (meters)	0.7
Polarization (e.g. RHCP, LHCP, dual)	Dual circular
Single or Multibeam	Single
Traffic Type (e.g. payload, telemetry, telecommand)	Payload

Geographic Scope of Operations	In-motion, non-geostationary spacecraft; transmitting to single fixed ground station
Center Coordinates	Lat: 51.416632 / Long: -1.317444 (ground station coordinates)

	Transmit
Frequency Range	37.5-42.0 GHz
Channel Bandwidth	10 MHz
Emission Designator	10M0G1D
Polarization	Dual Circular
Beamwidth	0.75 degrees
Antenna Gain (dBi at a specified frequency)	47.5 dBi
Max EIRP Per Carrier (dBW)	30.2
Max EIRP Density per Carrier (dBW/kHz)	-9.8

Transmitting Beams Max. Power Flux Density (dBW/m²/MHz)

Peak Gain	0°-5°	5°-10°	10°-15°	15°-20°	20°-25°	25°-90°
47.5 dBi	-121.2	-116.0	-114.4	-113.0	-111.8	-105.5