

File Number: **DRAFT-SAT-LOA-20260814-00341**

Call Sign:

S1. Satellite Information

a. Space Station or Satellite Network Name	b. Orbit Type	c. Estimated Operational Lifetime of Space Station(s) From Date of Launch (yrs)	d. Will the space station(s) operate on a Common Carrier basis?	e. Application Description
Otter 25A	Geostationary (GSO)	6	No	To operate in the 2025-2110 and 8450-8500 MHz bounds to provide docking, life extension, and station keeping services for an in-orbit satellite.

S2. Operating Frequency Bands

a. Type of Service	b. If a. is Other, provide a service description	c. Satellite Frequency Band (MHz)	d. Satellite Frequency (Lower Band Edge) (MHz)	e. Satellite Frequency (Upper Band Edge) (MHz)	f. Direction of Transmission	g. Non Conforming Indicator
SRS		2025 - 2110	2025	2110	Earth-to-Space (Receive)	No
SRS		8450 - 8500	8450	8500	Space-to-Earth (Transmit)	No

S3. GSO Orbital Information

a. Orbital Longitude (°)	b. Hemisphere of Orbital Longitude (E/W)	c. East/West Station-Keeping Range: Toward East (°)	d. East/West Station-Keeping Range: Toward West (°)	e. North/South Station-Keeping Range: Toward North (°)	f. North/South Station-Keeping Range: Toward South (°)	g. Maximum Orbital Eccentricity	h. Antenna Axis Attitude Accuracy: Roll (°)	i. Antenna Axis Attitude Accuracy: Pitch (°)	j. Antenna Axis Attitude Accuracy: Yaw (°)
143.5	East	0.05	0.05	6	6		1	1	1

S4. Earth-to-Space (Receive) Beams

a. Beam ID:	SRXL	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	-116.589
b. Beam Frequency (Lower Band Edge) (MHz):	2025	o. Peak Isotropic Antenna Gain (dBi):	
c. Beam Frequency (Upper Band Edge) (MHz):	2110	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	
f. Is this a command beam? (Check box if Yes):	Yes	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	25.114(c)(4)(vi)(A) (GSO)
h. Is the beam steerable? (Check box if Yes):	No	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	No	v. Are all space stations in the NGSO constellation identical?:	
j. Maximum G/T (dB/K):	-23.9	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):	-23.9		
l. Maximum Saturation Flux Density (dBW/m²):			

m. Minimum Saturation Flux Density (dBW/m²):						
x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
SRT1	0.01418	2048.5	2048.49291	2048.50709	TT&C	
SRT2	0.02835	2048.5	2048.485825	2048.514175	TT&C	
SRS3	0.01418	2103	2102.99291	2103.00709	Service Link	
SRS4	0.02835	2103	2102.985825	2103.014175	Service Link	
SRT3	0.01418	2103	2102.99291	2103.00709	TT&C	
SRS1	0.01418	2048.5	2048.49291	2048.50709	Service Link	
SRT4	0.02835	2103	2102.985825	2103.014175	TT&C	
SRS2	0.02835	2048.5	2048.485825	2048.514175	Service Link	

a. Beam ID:	SRXH	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	-116.3			
b. Beam Frequency (Lower Band Edge) (MHz):	2025	o. Peak Isotropic Antenna Gain (dBi):				
c. Beam Frequency (Upper Band Edge) (MHz):	2110	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):				
d. Polarization:	RHCP	q. Antenna Pointing Error (°):				
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):				
f. Is this a command beam? (Check box if Yes):	Yes	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes			
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	25.114(c)(4)(vi)(D) (GSO)			
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:				
i. Is the beam fed into transponders? (Check box if Yes):	No	v. Are all space stations in the NGSO constellation identical?:				
j. Maximum G/T (dB/K):	-16	w. What information will be provided with the predicted antenna gain contours?:				
k. Minimum G/T (dB/K):	-16.7					
l. Maximum Saturation Flux Density (dBW/m²):						
m. Minimum Saturation Flux Density (dBW/m²):						
x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
SRS1	0.02835	2048.5	2048.485825	2048.514175	Service Link	
SRT1	0.02835	2048.5	2048.485825	2048.514175	TT&C	
SRT4	0.14175	2103	2102.929125	2103.070875	TT&C	
SRT2	0.14175	2048.5	2048.429125	2048.570875	TT&C	
SRT3	0.02835	2103	2102.985825	2103.014175	TT&C	
SRS2	0.14175	2048.5	2048.429125	2048.570875	Service Link	
SRS3	0.02835	2103	2102.985825	2103.014175	Service Link	
SRS4	0.14175	2103	2102.929125	2103.070875	Service Link	

S5. Space-to-Earth (Transmit) Beams

a. Beam ID:	XTXL	n. Beam Peak Flux Density at Command Threshold (dBW/m²):
-------------	-------------	--

b. Beam Frequency (Lower Band Edge) (MHz):	8450	o. Peak Isotropic Antenna Gain (dBi):	
c. Beam Frequency (Upper Band Edge) (MHz):	8500	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	25.114(c)(4)(vi)(A) (GSO)
h. Is the beam steerable? (Check box if Yes):	No	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	No	v. Are all space stations in the NGSO constellation identical?:	
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-37.9	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	14.8		

x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
XS1		0.0285	8490		8489.98575		8490.01425		Service Link				
XT1		0.0285	8490		8489.98575		8490.01425		TT&C				
XT2		0.183	8490		8489.9085		8490.0915		TT&C				
XS2		0.183	8490		8489.9085		8490.0915		Service Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
		4 kHz	-154.5	-154.3	-153.7	-153.4	-153.1	-151.1					183

a. Beam ID:	XTXH	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	8450	o. Peak Isotropic Antenna Gain (dBi):	
c. Beam Frequency (Upper Band Edge) (MHz):	8500	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	25.114(c)(4)(vi)(D) (GSO)
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	No	v. Are all space stations in the NGSO constellation identical?:	
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-40.9	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	21.5		

x. Transmit Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
XT2	1.7385	8490	8489.13075	8490.86925	TT&C	
XS1	0.183	8490	8489.9085	8490.0915	Service Link	
XS2	1.7385	8490	8489.13075	8490.86925	Service Link	
XT1	0.183	8490	8489.9085	8490.0915	TT&C	
y. Max. Power-Flux Densities						

			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
		4 kHz	-157.6	-157.4	-156.7	-156.4	-156.1	-154.1					1740

S6. Space-to-Space (Receive) Beams

S7. Space-to-Space (Transmit) Beams

S8. Attachments

Beam ID	Direction of Transmission	(i) Document Type	(ii) If Document Type is "Other", provide short description	(iii) File Name
SRXH	Earth-to-Space (Receive)	GIMS Container File		OTTER 25A_API_GIMS_v4 - RevA.mdb
SRXL	Earth-to-Space (Receive)	GIMS Container File		OTTER 25A_API_GIMS_v4 - RevA.mdb
XTXH	Space-to-Earth (Transmit)	GIMS Container File		OTTER 25A_API_GIMS_v4 - RevA.mdb
XTXL	Space-to-Earth (Transmit)	GIMS Container File		OTTER 25A_API_GIMS_v4 - RevA.mdb