

Exhibit 1

Description of Proposed Operation

Sirius XM Radio Inc. ("SiriusXM") seeks authority to use four GPS re-radiators at two adjacent locations in Irving, Texas. SiriusXM provides, through its subsidiary SiriusXM Connected Vehicle Services Inc., a full range of telematics services for major automobile manufacturers. These services include enhanced safety and security features for vehicle occupants, such as notifying emergency responders of the vehicle's location in the event of an incident. SiriusXM's telematics services include other features for the consumer that rely on the vehicle's location, such as SOS (Save Our Soles, an emergency request for help), SVL (Stolen Vehicle Locator), POI (Point of Interest), ACN (Automatic Collision Notification), boundary alerts and journey planners.

SiriusXM continues to expand its telematics services and, in doing so, desires to conduct research and testing with GPS re-repeater equipment. The re-radiator equipment will be operated indoors within two adjacent buildings under the control of SiriusXM's connected vehicle services division. The re-radiator units are manufactured by Roger-GPS Ltd. (model GPRS-1). The technical specifications are attached as Attachment A. As set forth below, SiriusXM's use will comply with Section 8.3.28 of the NTIA Manual of Regulations and Procedures for Federal Frequency Management. The research and testing conducted under the requested license will enhance the safety and security, as well as features demanded by consumers, offered by next-generation connected vehicles.

Technical Requirements

Section 8.3.28(a): Individual authorization is for indoor use only, and is required for each device at a specific site.

The devices will be used entirely indoors. Two re-radiators will be located at 8550 Freepoint Parkway, Irving, Texas (32° 55' 24.9" N, 97° 0' 54.7 W) and two re-radiators will be located at 8650 Freepoint Parkway, Irving, Texas, 75063 (32° 55' 30.0" N, 97° 0' 45.6 W).

Section 8.3.28(b): Applications for frequency assignment should be applied for as an XT station class with a note indicating the device is to be used as an "Experimental RNSS Test Equipment for the purpose of testing GPS receivers" and describing how the device will be used.

See attached application.

Section 8.3.28(c): Approved applications for frequency assignment will be entered in the GMF.

See attached application.

Section 8.3.28(d): The maximum length of the assignment will be two years, with possible renewal.

SiriusXM requests a two-year license period.

Section 8.3.28(e): The area of potential interference to GPS reception (e.g., military or contractor facility) must be under the control of the user.

SiriusXM controls the two building sites. In one site, SiriusXM is the sole tenant of the building.

Section 8.3.28(f): The maximum equivalent isotropically radiated power (EIRP) must be such that the calculated emissions are no greater than -140 dBm/24 MHz as received by an isotropic antenna at a distance of 100 feet (30 meters) from the building where the test is being conducted. The calculations showing compliance with this requirement must be provided with the application for frequency assignment and should be based on free space propagation with no allowance for additional attenuation (e.g., building attenuation.)

See Attachment B.

Section 8.3.28(g): GPS users in the area of potential interference to GPS reception must be notified that GPS information may be impacted for periods of time.

SiriusXM will post prominent signage on doors to the test area notifying that “GPS re-radiator is in use and the GPS information you receive may be in error.”

Section 8.3.28(h): The use is limited to activity for the purpose of testing RNSS equipment/systems.

Activities under the license will be limited to testing RNSS equipment/systems.

Section 8.3.28(i): A "Stop Buzzer" point of contact for the authorized device must be identified and available at all times during GPS remediation operation of the device under any condition.

SiriusXM's point of contact is Henry Armstrong, Senior Manager, Facilities (972-753-6208)

ATTACHMENT A



Steffe's & Company, LLC.

ROGER-GPS Repeater Unit (GPSR-1)

Each ROGER-GPS repeater is capable of transmitting the GPS signal over an area of about 10,764 sq. foot (1,000 sq. meter) and a distance of up to 164 ft. (50 m) from the repeater center. If necessary, the area can be extended by adding additional repeater units, all connected to the same external antenna, using a signal splitter and line amplifier. Every repeater unit is supplied with a main power supply unit.



Key Features

- Automatic gain limitation
- Oscillation prevention with indicator
- Maximal coverage for CE approved repeater
- Instant GPS fix when moving outdoors
- Full product family with repeaters, amplifiers and splitters
- Internal transmit antenna

TECHNICAL SPECIFICATIONS		
Size	4.33 x 5.63 x 1.10 inches (110 X 143 x 28 mm)	
Weight	5.82 ounce (165 g)	
Overall Gain	> 40 dB	
Noise Figure	< 2 dB	
Variable attenuation	0 – 40 dB	
Impedance	50 Ω	
Input connector	SMA-female	
Operating temperature	-13 - +104°F (-25 - +40°C)	
Power supply	12 VDC, 300 mA	Power Supply included
Indoor coverage radius	33 – 59 ft. (10 – 18 m)	
Antenna power output	+5 VDC, 100 mA	
TX Antenna gain	Max. +4dBd, RHCP polarization	
CE-certified	Yes	



Instant GPS service indoors

Key Features

- Automatic gain limitation
- Oscillation prevention with indicator
- Maximal coverage for CE approved repeater
- Instant GPS fix when moving outdoors
- Full product family with repeaters, amplifiers and splitters



Emergency stations and depots

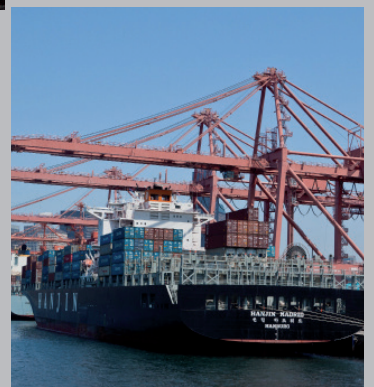


Asset management in control room

Tunnels and traffic stations



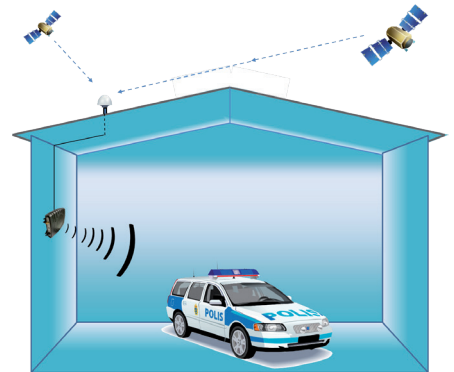
Ships and vessels



How does Roger GPS repeater work?

ROGER GPS repeater operates by receiving GPS satellite signals with an antenna located outside the building and re-radiating the signals to the indoor area or covered space.

Use of re-radiated signals means that GPS receiver is tracking the current GPS status meaning that when a GPS receiver is moved from covered area to outdoors, the receiver is instantly tracking the location instead of time consuming acquisition of GPS data.



Technical information

Frequency:	GPS L1 (1.57542 GHz)
Size:	110*143*28 mm
Weight:	165 g
Overall gain:	> 40 db
Adjustable Gain:	0-40 db
Impedance:	50 Ohm
Input connector:	SMA-female
Operating temperature:	- 25 - + 60 °C
Power supply:	+12VDC/300mA
Indoor coverage radius:	10 - 18 m
Antenna power output:	+ 5 VDC, 100 mA
TX Antenna gain:	max. +4dBd, RHCP polarized

ROGER™ GPS products:

Latest Product information can be found on
<http://www.gps-repeating.com/>

or email us to

roger@gps-repeating.com

**ROGER™**
GPS repeater

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ATTACHMENT B

		Input	Antenna	Cable+conn	FLT1	Output	Total	
Signal	dBm	-130.00	-95.00	-114.00	-117.00	-85.00	-85.00	3.16 pW
NF	dB		3.00	11.00	3.00	2.00		
Gain	dB		35.00	-19.00	-3.00	-2.00	51.00	
Own noise	dBm		-78.99	-122.33	-116.99	-118.30		
Total noise out	dBm	-114.00	-75.99	-94.98	-97.92	-65.84	-65.84	
SNR		-16.00	-19.01	-19.02	-19.08	-19.16	-19.22	
Total signal out	dBm	-113.89	-75.93	-94.92	-100.15	-65.78	-65.78	

BW/Hz 1.00E+06
F=1575.42MHz

Thermal noise = -174dB/Hz

kB 1.38E-23 J/K
T0 290 K

NF/dB 4

Te=T0*(F-1) K
Te=Na/k*G*B K
Na=Te*k*G*B W
Na=T0*(F-1)*k*G*B W

F 2.51188643 10^(NF/10)
Na 6.05E-15 T0*(10^NF/10-1)*k*G*B
Na/dBm -112.18 10*log(1000*T0*(10^(NF/10)-1)*k*B*G)

		Input	Antenna	Cable+conn	FLT1	Output	Total	
Signal	dBm	-130.00	-95.00	-110.00	-113.00	-81.00	-81.00	7.94 pW
NF	dB		3.00	11.00	3.00	2.00		
Gain	dB		35.00	-15.00	-3.00	-2.00	55.00	
Own noise	dBm		-78.99	-118.33	-116.99	-118.30		
Total noise out	dBm	-114.00	-75.99	-90.98	-93.96	-61.92	-61.92	
SNR		-16.00	-19.01	-19.02	-19.04	-19.08	-19.13	
Total signal out	dBm	-113.89	-75.93	-90.92	-100.15	-61.87	-61.87	

BW/Hz 1.00E+06
F=1575.42MHz

Thermal noise = -174dB/Hz

kB 1.38E-23 J/K
T0 290 K

NF/dB 4
 $F = 2.51188643 \cdot 10^{(NF/10)}$
 $Te = Na/k \cdot G \cdot B$
 $Na = Te \cdot k \cdot G \cdot B$
 $Na = T0 \cdot (F-1) \cdot k \cdot G \cdot B$
 $Na/dBm = -112.18 + 10 \cdot \log(1000 \cdot T0 \cdot (10^{(NF/10)} - 1) \cdot k \cdot B \cdot G)$