



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION REGISTRATION

Name: Comcast Cable Communications Management, LLC

Call Sign: E181696

Authorization Type: Registration

File Number: SES-REG-20180810-02640

Non Common Carrier

Grant date: 08/05/2019

Expiration Date: 07/20/2033



Nature of Service: Fixed Satellite Service

Class of Station: Fixed Earth Stations

A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1)	1	26102 Bonita Grande Drive Bonita Springs, Lee, FL 26102	26°21'25.8"N	81°44'32.1"W	4.58	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						
2)	10	26102 Bonita Grande Drive Bonita Springs, Lee, FL 26102	26°21'28.1"N	81°44'33.3"W	4.54	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						
3)	11	26102 Bonita Grande Drive Bonita Springs, Lee, FL 34135	26°21'28.2"N	81°44'31.6"W	4.67	83
Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.						
4)	12	26102 Bonita Grande Drive Bonita Springs, Lee, FL 34135	26°21'27.7"N	81°44'32.7"W	4.54	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						
5)	13	26102 Bonita Grande Drive Bonita Springs, Lee, FL 26102	26°21'28.9"N	81°44'32.4"W	4.4	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						
6)	14	26102 Bonita Grande Drive Bonita Springs, Lee, FL 34135	26°21'28.9"N	89°50'32.4"W	4.4	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						



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A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
7)	15	26102 Bonita Grande Drive Bonita Springs, Lee, FL 26102	26°21'28.5"N	81°44'31.8"W	4.67	83
Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.						
8)	2	26102 Bonita Grande Drive Bonita Springs, Lee, FL 34135	26°21'26.0"N	81°44'32.4"W	4.59	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						
9)	3	26102 Bonita Grande Drive Bonita Springs, Lee, FL 34135	26°21'26.4"N	81°44'32.9"W	4.84	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						
10)	4	26102 Bonita Grande Drive Bonita Springs, Lee, FL 34135	26°21'26.6"N	81°44'33.2"W	4.16	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						
11)	5	26102 Bonita Grande Drive Bonita Springs, Lee, FL 26102	26°21'27.3"N	81°44'32.2"W	4.72	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						
12)	6	26102 Bonita Grande Drive Bonita Springs, Lee, FL 34135	26°21'27.5"N	81°44'32.4"W	4.72	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						



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A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
13)	7	26102 Bonita Grande Drive Bonita Springs, Lee, FL 34135	26°21'26.2"N	81°44'32.6"W	4.59	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						
14)	8	26102 Bonita Grande Drive Bonita Springs, Lee, FL 34135	26°21'27.9"N	81°44'33.0"W	4.54	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						
15)	9	26102 Bonita Grande Drive Bonita Springs, Lee, FL 34135	26°21'28.0"N	81°44'31.4"W	4.67	83
Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.						

Subject to the provisions of the Communications Act of 1934, The Communications Satellite Act of 1962, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the registrant is registered to operate the radio facilities described below for radio communications for the term beginning July 20, 2018 (3 AM Eastern Standard Time) and ending July 20, 2033 (3 AM Eastern Standard Time). The required date of commencement of operation is 00/00/0000. Registrant must file with the Commission a certification upon commencement of operation.

B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
1)	3700.0000-4200.0000	H,V	36M0G7W	Rx			3M SA1		DIGITAL VIDEO CARRIER
2)	3700.0000-4200.0000	H,V	36M0G7W	Rx			3M SA1		DIGITAL VIDEO CARRIER
3)	3700.0000-4200.0000	H,V	36M0G7W	Rx			3M SA1		DIGITAL VIDEO CARRIER



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#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
4)	3700.0000-4200.0000	H, V	36M0G7W	Rx			3M SA2		DIGITAL VIDEO CARRIER
5)	3700.0000-4200.0000	H, V	36M0G7W	Rx			4.5M SA1		Digital Video Carrier
6)	3700.0000-4200.0000	H, V	36M0G7W	Rx			7M SA1		DIGITAL VIDEO CARRIER
7)	3700.0000-4200.0000	H, V	36M0G7W	Rx			7M SA10		DIGITAL VIDEO CARRIER
8)	3700.0000-4200.0000	H, V	36M0G7W	Rx			7M SA2		DIGITAL VIDEO CARRIER
9)	3700.0000-4200.0000	H, V	36M0G7W	Rx			7M SA3		DIGITAL VIDEO CARRIER
10)	3700.0000-4200.0000	H, V	36M0G7W	Rx			7M SA4		DIGITAL VIDEO CARRIER
11)	3700.0000-4200.0000	H, V	36M0G7W	Rx			7M SA5		DIGITAL VIDEO CARRIER
12)	3700.0000-4200.0000	H, V	36M0G7W	Rx			7M SA6		DIGITAL VIDEO CARRIER
13)	3700.0000-4200.0000	H, V	36M0G7W	Rx			7M SA7		DIGITAL VIDEO CARRIER
14)	3700.0000-4200.0000	H, V	36M0G7W	Rx			7M SA8		DIGITAL VIDEO CARRIER
15)	3700.0000-4200.0000	H, V	36M0G7W	Rx			7M SA9		DIGITAL VIDEO CARRIER

C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.)		Elevation (Degrees)		Azimuth (Degrees)		Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
		East Limit	West Limit	East Limit	West Limit	East Limit	West Limit		
1)	3700.0000-4200.0000	60.0W-143.0W		50.9-17.2		138.1-256.3		0	7M SA1
2)	3700.0000-4200.0000	60.0W-143.0W		50.9-17.2		138.1-256.3			7M SA2
3)	3700.0000-4200.0000	60.0W-143.0W		50.9-17.2		138.1-256.3			7M SA3
4)	3700.0000-4200.0000	60.0W-143.0W		50.9-17.2		138.1-256.3			7M SA4
5)	3700.0000-4200.0000	60.0W-143.0W		50.9-17.2		138.1-256.3			7M SA5
6)	3700.0000-4200.0000	60.0W-143.0W		50.9-17.2		138.1-256.3			7M SA6
7)	3700.0000-4200.0000	60.0W-143.0W		50.9-17.2		138.1-256.3			7M SA7
8)	3700.0000-4200.0000	60.0W-143.0W		50.9-17.2		138.1-256.3			7M SA8
9)	3700.0000-4200.0000	60.0W-143.0W		50.9-17.2		138.1-256.3			3M SA1
10)	3700.0000-4200.0000	60.0W-143.0W		50.9-17.2		138.1-256.3			7M SA9



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C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.)		Elevation (Degrees)		Azimuth (Degrees)		Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
		East Limit	West Limit	East Limit	West Limit	East Limit	West Limit		
11)	3700.0000-4200.0000	60.0W	143.0W	50.9	17.2	138.1	256.3		3M SA2
12)	3700.0000-4200.0000	60.0W	143.0W	50.9	17.2	138.1	256.3		7M SA10
13)	3700.0000-4200.0000	60.0W	143.0W	50.9	17.2	138.1	256.3		4.5M SA1
14)	3700.0000-4200.0000	60.0W	143.0W	50.9	17.2	138.1	256.3		4.5M SA2
15)	3700.0000-4200.0000	60.0W	143.0W	50.9	17.2	138.1	256.3		3M SA3

D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

- 1) 1 to Permitted Space Station List
- 2) 2 to Permitted Space Station List
- 3) 3 to Permitted Space Station List
- 4) 4 to Permitted Space Station List
- 5) 5 to Permitted Space Station List
- 6) 6 to Permitted Space Station List
- 7) 7 to Permitted Space Station List
- 8) 8 to Permitted Space Station List
- 9) 9 to Permitted Space Station List
- 10) 10 to Permitted Space Station List
- 11) 11 to Permitted Space Station List
- 12) 12 to Permitted Space Station List
- 13) 13 to Permitted Space Station List
- 14) 14 to Permitted Space Station List
- 15) 15 to Permitted Space Station List



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E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
9	3M SA1	1	3	Scientific Atlanta	8335	4.67	3 AGL/ 7.67 AMSL	
	Max Gains(s): 39.5 dBi @ 3.9500 GHz Maximum total input power at antenna flange (Watts) = Maximum aggregate output EIRP for all carriers (dBW) =							
11	3M SA2	1	3	Scientific Atlanta	8335	4.67	3 AGL/ 7.67 AMSL	
	Max Gains(s): 39.5 dBi @ 3.9500 GHz Maximum total input power at antenna flange (Watts) = Maximum aggregate output EIRP for all carriers (dBW) =							
15	3M SA3	1	3	Scientific Atlanta	8335	4.67	3 AGL/ 7.67 AMSL	
	Max Gains(s): 39.5 dBi @ 3.9500 GHz Maximum total input power at antenna flange (Watts) = Maximum aggregate output EIRP for all carriers (dBW) =							
13	4.5M SA1	1	4.5	Scientific Atlanta	8345	4.4	4.5 AGL/ 8.79 AMSL	
	Max Gains(s): 43.3 dBi @ 3.9500 GHz Maximum total input power at antenna flange (Watts) = Maximum aggregate output EIRP for all carriers (dBW) =							
14	4.5M SA2	1	4.5	Scientific Atlanta	8345	4.4	4.5 AGL/ 8.9 AMSL	
	Max Gains(s): 43.3 dBi @ 3.9500 GHz Maximum total input power at antenna flange (Watts) = Maximum aggregate output EIRP for all carriers (dBW) =							
1	7M SA1	1	7	Scientific Atlanta	8010D	4.58	7 AGL/ 11.58 AMSL	
	Max Gains(s): 47.5 dBi @ 3.9500 GHz Maximum total input power at antenna flange (Watts) = Maximum aggregate output EIRP for all carriers (dBW) =							



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E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
12	7M SA10	1	7	Scientific Atlanta	8010D	4.54	7 AGL/ 11.54 AMSL	
	Max Gains(s): 47.5 dBi @ 3.9500 GHz							
	Maximum total input power at antenna flange (Watts) =							
	Maximum aggregate output EIRP for all carriers (dBW) =							
2	7M SA2	1	7	Scientific Atlanta	8010D	4.59	7 AGL/ 11.59 AMSL	
	Max Gains(s): 47.5 dBi @ 3.9500 GHz							
	Maximum total input power at antenna flange (Watts) =							
	Maximum aggregate output EIRP for all carriers (dBW) =							
3	7M SA3	1	7	Scientific Atlanta	8010D	4.84	7 AGL/ 11.84 AMSL	
	Max Gains(s): 47.5 dBi @ 3.9500 GHz							
	Maximum total input power at antenna flange (Watts) =							
	Maximum aggregate output EIRP for all carriers (dBW) =							
4	7M SA4	1	7	Scientific Atlanta	8010D	4.16	7 AGL/ 11.16 AMSL	
	Max Gains(s): 47.5 dBi @ 3.9500 GHz							
	Maximum total input power at antenna flange (Watts) =							
	Maximum aggregate output EIRP for all carriers (dBW) =							
5	7M SA5	1	7	Scientific Atlanta	8010D	4.72	7 AGL/ 11.72 AMSL	
	Max Gains(s): 47.5 dBi @ 3.9500 GHz							
	Maximum total input power at antenna flange (Watts) =							
	Maximum aggregate output EIRP for all carriers (dBW) =							
6	7M SA6	1	7	Scientific Atlanta	8010D	4.72	7 AGL/ 11.72 AMSL	
	Max Gains(s): 47.5 dBi @ 3.9500 GHz							
	Maximum total input power at antenna flange (Watts) =							
	Maximum aggregate output EIRP for all carriers (dBW) =							



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E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
7	7M SA7	1	7	Scientific Atlanta	8010D	4.59	7 AGL/ 11.59 AMSL	
Max Gains(s): 47.5 dBi @ 3.9500 GHz								
Maximum total input power at antenna flange (Watts) =								
Maximum aggregate output EIRP for all carriers (dBW) =								
8	7M SA8	1	7	Scientific Atlanta	8010D	4.54	7 AGL/ 11.54 AMSL	
Max Gains(s): 47.5 dBi @ 3.9500 GHz								
Maximum total input power at antenna flange (Watts) =								
Maximum aggregate output EIRP for all carriers (dBW) =								
10	7M SA9	1	7	Scientific Atlanta	7 meter	4.54	7 AGL/ 11.54 AMSL	
Max Gains(s): 47.5 dBi @ 3.9500 GHz								
Maximum total input power at antenna flange (Watts) =								
Maximum aggregate output EIRP for all carriers (dBW) =								

G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions

H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

- 4 --- Licensee must ensure that a current listing of the name, title, mailing address, email address, and telephone number of the responsible point of contact are on file at the FCC. Any changes must be filed electronically in the International Bureau Filing System (MyIBFS) using the "Pleadings and Comments" link on the MyIBFS homepage within 10 days of the change.
- 5 --- Licensee must notify the Commission when this earth station is no longer operational or when it has not been used to provide any service during any 6-month operation.
- 6 --- Licensee must comply with the license modification and notification requirements of 47 CFR § 25.118 to change the coordinates of its authorized earth station.
- 8 --- Licensee must notify the Commission when all earth stations operating under this authorization are no longer operational or when they have not been used to provide any service during any 6-month operation.



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H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

- 2465 --- Operation of this receive-only earth station shall be in accordance with the frequency coordination exhibit completed for this station.
- 90398 --- Changes to previously authorized transmitting facilities, operations and devices regulated by the Commission that may have significant environmental impact, and are not excluded by §1.1306, require the preparation of an Environmental Assessment (EA) by the licensee. (See 47 C.F.R. §§1.1307, 1.1308 and 1.1311)
- 90470 --- The application for this authorization was filed within the 194-day filing window for FSS earth stations operating in the 3700-4200 MHz frequency band as of April 19, 2018, as established by Public Notice DA 18-398 (rel. Apr. 19, 2018) and Public Notice DA-18-639 (rel. Jun. 21, 2018), and Public Notice DA 18-1061 (rel. Oct. 17, 2018).
- 90471 --- The application for this authorization was filed with a coordination report therefore operations of this earth station in the 3700-4200 MHz band are protected within the limits establish by the coordination report filed.
- 900407 --- The Permitted Space Station List (Permitted List) is a list of all geostationary space stations providing fixed-satellite service pursuant to a Commission license or grant of U.S. market access. The Permitted List currently includes the following frequency bands per §25.103 and §25.115(k)(1):

3600-4200 MHz (space-to-Earth)
5850-6725 MHz (Earth-to-space)
10.95-11.2 GHz (space-to-Earth)
11.45-12.2 GHz (space-to-Earth)
13.75-14.5 GHz (Earth-to-space)
18.3-18.8 GHz (space-to-Earth)
19.7-20.2 GHz (space-to-Earth)
24.75-25.25 GHz (Earth-to-space)
28.35-28.6 GHz (Earth-to-space)
29.25-30.0 GHz (Earth-to-space).

Earth stations with "Permitted List" designated as a point of communication may access any space station on the Permitted List, provided the operations comply with the applicable "routine" uplink and downlink limits, are within the specific frequency bands authorized in the earth station license, have completed coordination with terrestrial stations pursuant to §25.203, and otherwise comply with all terms and conditions of both the earth station license and the space station grant.



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B) This RADIO STATION AUTHORIZATION is granted subject to the additional conditions specified below:

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303(q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F.R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R. § 17.4.

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station.

This authorization shall be automatically forfeited if the station is not ready for operation by the required date of completion of construction unless an application for modification of authorization to request additional time to complete construction is filed by that date, together with a showing that failure to complete construction by the required date was due to factors not under control of the grantee.

Licensees are required to pay annual regulatory fees related to this authorization. The requirement to collect annual regulatory fees from regulatees is contained in Public Law 103-66, "The Omnibus Budget Reconciliation Act of 1993." These regulatory fees, which are likely to change each fiscal year, are used to offset costs associated with the Commission's enforcement, public service, international and policy and rulemaking activities. The Commission issues a Report and Order each year, setting the new regulatory fee rates. Receive only earth stations are exempt from payment of regulatory fees.

