

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XT FX

(Class of Station)

WL2XFM

(Call Sign)

0712-EX-CN-2020

(File Number)

NAME O3b Limited

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(j) of the Commission's Rules

Station Locations

- (1) Port St Lucie, FL - NL 27-16-55; WL 80-28-59
- (2) Port St Lucie, FL - NL 27-16-55; WL 80-28-59
- (3) Port St Lucie, FL - NL 27-16-55; WL 80-28-59

Frequency Information

Port St Lucie, FL - NL 27-16-55; WL 80-28-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.925-6.425 GHz	FX	30M0G7W	2398832.92 W (ERP)	0.001 %

Port St Lucie, FL - NL 27-16-55; WL 80-28-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.5 GHz	FX	36M0G7D	5.081594 MW (ERP)	0.001 %

This authorization effective October 30, 2020 and
will expire 3:00 A.M. EST November 01, 2022

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Port St Lucie, FL - NL 27-16-55; WL 80-28-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
27.6-28.4 GHz	FX	216MG7D	242661 W (ERP)	0.001 %
28.6-29.1 GHz	FX	216MG7D	242661 W (ERP)	0.001 %
29.5-30 GHz	FX	216MG7D	242661 W (ERP)	0.001 %

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (3) This authorization SUPERSEDES the previously issued authorization with the same call sign and file number:
- (4) Licensee must successfully coordinate with the Fixed Microwave Service licensees in the proposed area in accordance with 47 C.F.R, Part 101.103(d) prior to operation in 5.925-6.425 GHz band.
- (5) The stop buzzer: Nor Powanda at 202-468-7179, Nor.powanda@ses.com

Point of communications: New Skies Satellites B.V.'s NSS7 @ 20° WL (Call Sign S2463), SES Americom, Inc.'s AMC-3 @ 72° WL (Call Sign S2162), New Skies Satellites B.V.'s SES-4 @ 22° WL (Call Sign S2828), and O3b's NGSO satellites (Call Sign S2935).

- (6) Licensee is authorized to operate 2 unites of 2.4 meter Intellian v240MT terminals that will be used 1) to communicate with NSS7, AMC-3 and SES-4 GSO satellites in the 5925-6425 MHz band (Earth-to-space); 2) to communicate with AMC-3 and SES-4 GSO satellites in the 14-14.5 GHz band (Earth-to-space), and to communicate with O3b's NGSO satellites in the 27.6-28.4 GHz, 28.6-29.1GHz and 29.5-30 GHz bands (Earth-to-space).
- (7) Operations in the 27.6-28.4 GHz and 29.5-30 GHz (Ka-band) frequency bands must be in compliance with the Article 22, Section II, and Resolution 76 of the ITU Radio Regulations. In the 27.6-28.4 GHz and 29.5-30 GHz frequency bands, the equivalent power flux-density (EPFD) limit in the Earth-to-space direction (EPFDup) must not exceed -162 dBW/m2 in 40 kHz bandwidth.

Special Conditions:

- (8) The authorized 2.4 meter earth station transmitter must be turned off whenever (1) there is no O3b satellite in view at an elevation angle of at least 7 degrees, or (2) the direction of the 2.4m earth station transmit beam and the GSO arc is separated between 10° and 14°. Operations in the 28.35-28.4 GHz and 29.5-30 GHz frequency bands must maintain +/-10° to +/-14° of avoidance angle (exclusion zone) with the GSO arc at all times. As the earth station is tracking O3b's NGSO satellites, it must not radiate within +/- 10° and 14° of the GSO arc.
- (9) Licensee must successfully coordinate with the local Society of Broadcast Engineers frequency coordinator in the proposed area prior to commencing the experimental operations.
Potential for harmful interference to UMFUS operations and the Broadcast Auxiliary Service operations in adjacent band, 6425-6525 MHz, is very likely and very high.
- (10) Licensee must successfully secure consents from the Upper Microwave Flexible Use Service licensees within 100 km radius from the transmitter prior to accessing to 27.6-28.4 GHz and 28.6-29.1 GHz bands.