

The Boeing Company

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Defined payload requirements for the first (ABS 3A, F1) and second (Satmex 7, F2) satellites of the 702SP 4-Pack Program.

Why an Experimental License is Necessary

An experimental license is required to support ground testing of production satellite systems at the Boeing facility, located in El Segundo, CA.

Test Description

The purpose of this experiment is to test/verify proper operation of production satellite equipment. The experiment will involve use of a production satellite transmitter, which will be ground tested inside of the Boeing satellite test facility, located in El Segundo, CA. The test set-up will use conical horn antennae, which will be mounted approximately two meters above the floor inside the Boeing test facility building S03A. The antennae have maximum gains of approximately 29.0 dB (C-band) and 33.0 dB (Ku-band). During the test the antennae will be pointed directly upward, towards the ceiling of the building. An environmental assessment is included as a separate exhibit. The specific test parameters are listed in Tables (1) and (2).

Table 1

C-Band Frequency Band	3600 – 4200 MHz
Emissions	CW N0N
Antenna Type	Conical Horn
Maximum Antenna Gain	29.0 dB
LTWTA O/P PWR	74 Watts
Transmitter Peak Power at Antenna Interface	53.5 Watts
ERP	43000 Watts

Ku-Band Frequency Bands	10700 – 12750 MHz
Emissions	CW N0N
Antenna Type	Conical Horn
Maximum Antenna Gain	33.0 dB
LTWTA O/P PWR	155 Watts
Transmitter Peak Power at Antenna Interface	110.2 Watts
ERP	200000 Watts

Table 2

Frequencies, Power and Emission

Frequency	Emission	RF Power (ERP)	Station Class	Frequency Tolerance
3600 – 4200 MHz	N0N	43000 Watts	FX	0.001
10700 – 12750 MHz	N0N	200000 Watts	FX	0.001

Schedule for Development Work

Testing is expected to commence 1/15/2014 and complete 7/31/2015

Location

Boeing Facility, El Segundo, CA
Inside Satellite Test Building S03A
Coordinates: 33-55-45 N 118-23-17 W NAD83

Stop Buzzer Contact Information

The "Stop Buzzer" point of contact:

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