



AMOS-4 Ku-2 Beam

Technical Handbook / Version 1.3

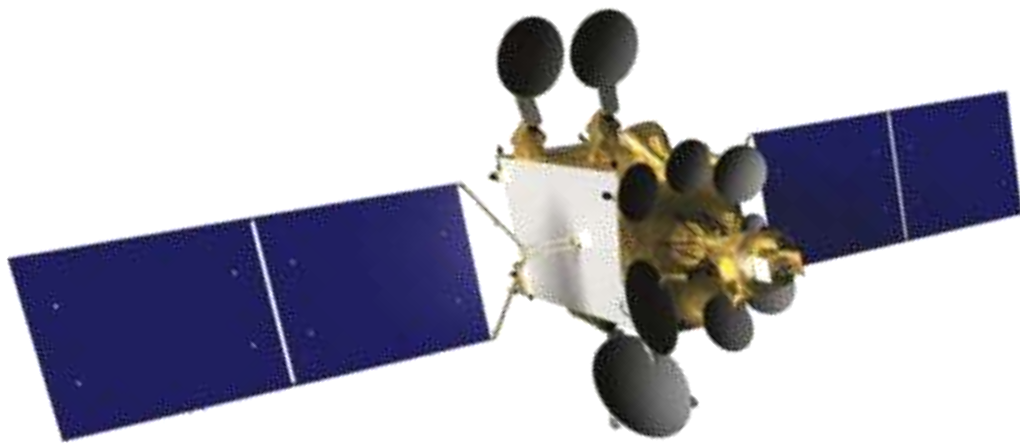
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1. INTRODUCTION

Launched in 2013, Spacecom's AMOS-4 satellite established a new orbital position at 65°E, providing a full range of satellite services for Asia, Russia, the Middle East as well as other service areas.



Picture 1- AMOS-4 Deployed View



2. GENERAL SPECIFICATIONS

Orbital location.....65° East
Launch date.....August 2013
Number of available Ku-band Transponders.....4 x 108MHz
Ku-2 beam coverage.....Steerable beam

3. FREQUENCY BANDS AND POLARIZATION

Uplink frequencies..... 13.00 to 13.25 GHz
13.75 to 14.00 GHz
Vertical/ Horizontal

Downlink frequencies..... 10.70 to 10.95 MHz
11.20 to 11.45 MHz
Vertical/ Horizontal

The channels' connectivity is fully flexible.



4. PAYLOAD CHARACTERISTICS

4.1. EIRP at Beam Peak

Band	Ku-2
EIRP [dBW]	51.8

4.2. G/T at Beam Peak

Band	Ku-2
G/T [dB/K]	6.3

4.3. Saturated Flux Density

Beam	SFD @ Min. Gain Setting [dBW/m ²]	SFD @ Max. Gain Setting [dBW/m ²]
Ku-2	-(70+G/T)	-(92+G/T)

4.4. Operational Modes:

4.4.1. Fixed Gain (FGM) or Automatic Level Control (ALC)

4.4.2. Gain Range and Gain Setting:

Gain Range = 22 dB Gain Step ~0.5dB

4.5. Beacons Parameters

There are 2 beacons in Ku. Their frequencies and power are listed in the following table:

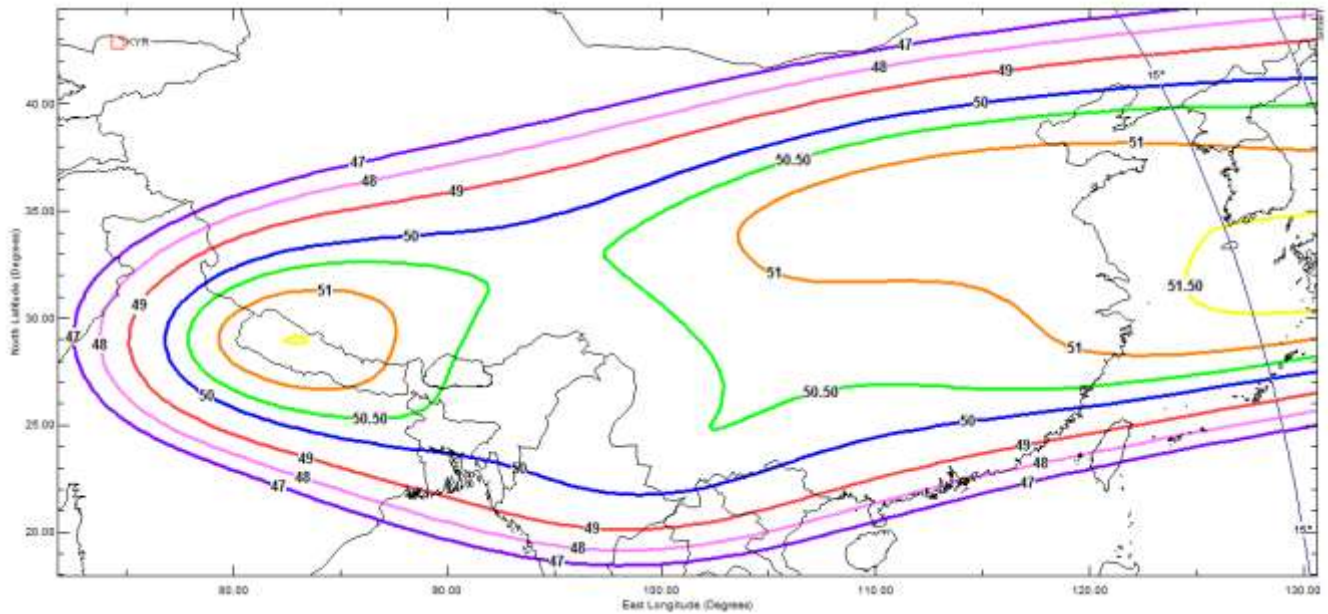
Band	F1	EIRP (dBW)	F2	EIRP (dBW)
Ku	10.703 GHz (LHCP)	8.9	11.6985 GHz (RHCP)	8.9

* Only one beacon, F1 or F2 shall transmit at a time



5. Typical Coverage Maps :

5.1. EIRP Coverage Map over Russia





5.2.G/T Coverage Map over Russia

