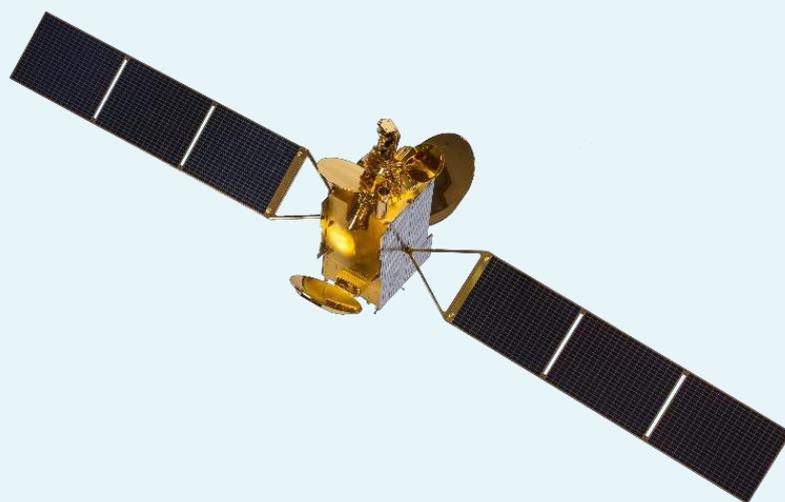


BELINTERSAT-1 HANDBOOK



INTRODUCTION	3
BELINTERSAT-1 IN BRIEF	4
PAYLOAD	5
FOOTPRINTS	6
Africa Ku-band.....	7
EIRP (dBW)	7
Europe Ku-band	8
EIRP (dBW)	8
Africa C-band.....	9
EIRP (dBW)	9
East C-band	10
EIRP (dBW)	10

INTRODUCTION

BELINTERSAT-1 satellite is launched into the 51.5 degrees East orbital slot in January, 2016.

BELINTERSAT is meant to be a provider of satellite services, delivering high performance connectivity solutions for media, fixed and mobile broadband on the territory of three continents: Europe, Africa and Asia, which are covered with 3 beams.

It is equipped with:

- 20 C-band transponders, 36 MHz (6 transponders switching between Africa C and East C beams);
- 14 Ku-band transponders, 36MHz (4 transponders can be cross-strapped to Europe: uplink in Europe, downlink in Africa);
- 4 Ku-band transponders, 54 MHz each.

BELINTERSAT-1, as well as the Ground Control Center, teleport and fiber infrastructure, meets up-to-date standards for data transmissions and broadcasting services:

- **Satellite Internet;**
- **Corporate networks;**
- **Backup data channels;**
- **Lease of space segment;**
- **Live TV broadcasting.**

BELINTERSAT-1 IN BRIEF

Satellite name	BELINTERSAT-1
Orbital slot	51.5° E
Station keeping accuracy	± 0.05°
Date and launch site	January 15, 2016. Xichang (China)
Payload	C-band: 20 x 36 MHz Ku-band: 14 x 36 MHz 4 x 54 MHz
Service regions	Europe, Africa, Asia
Payload / Manufacturer	DFH-4 / CAST
Ground Control Station / Teleport	Stankovo, Dzerzhinsk region, Belarus
EPS output power, W	10 500
Service life, years	15

PAYLOAD

Europe, Ku-band – 4 x 54 MHz, 2 x 36 MHz

DL frequency : 10 825 – 10 950; 11 200 – 11 450 MHz;
UL frequency : 12 750 – 13 125 MHz
Polarization : V/H
Beacons : 11 445 MHz (H)

Africa, Ku-band – 12 x 36 MHz*

DL frequency : 10 950 – 11 200 MHz;
UL frequency : 14 000 – 14 500 MHz
Polarization : V/H
Beacons : 11 194 MHz (V), 11 197 MHz (H)

Africa, C-band – up to 16 x 36 MHz**

DL frequency : 3 600 – 4 200 MHz;
Up frequency : 5 850 – 6 450 MHz
Polarization : CL/CR
Beacons : 4 194.0 MHz (CR), 4 195.6 MHz (CL)

East, C-band – up to 12 x 36 MHz**

DL frequency : 3 600 - 4 200 MHz;
UL frequency : 5 850 – 6 450 MHz
Polarization : CL/CR
Beacons : 4 194.0 MHz (CR), 4 195.6 MHz (CL)

SFD range (dBW/m²): $-(70+G/T) \dots -(98 + G/T)$

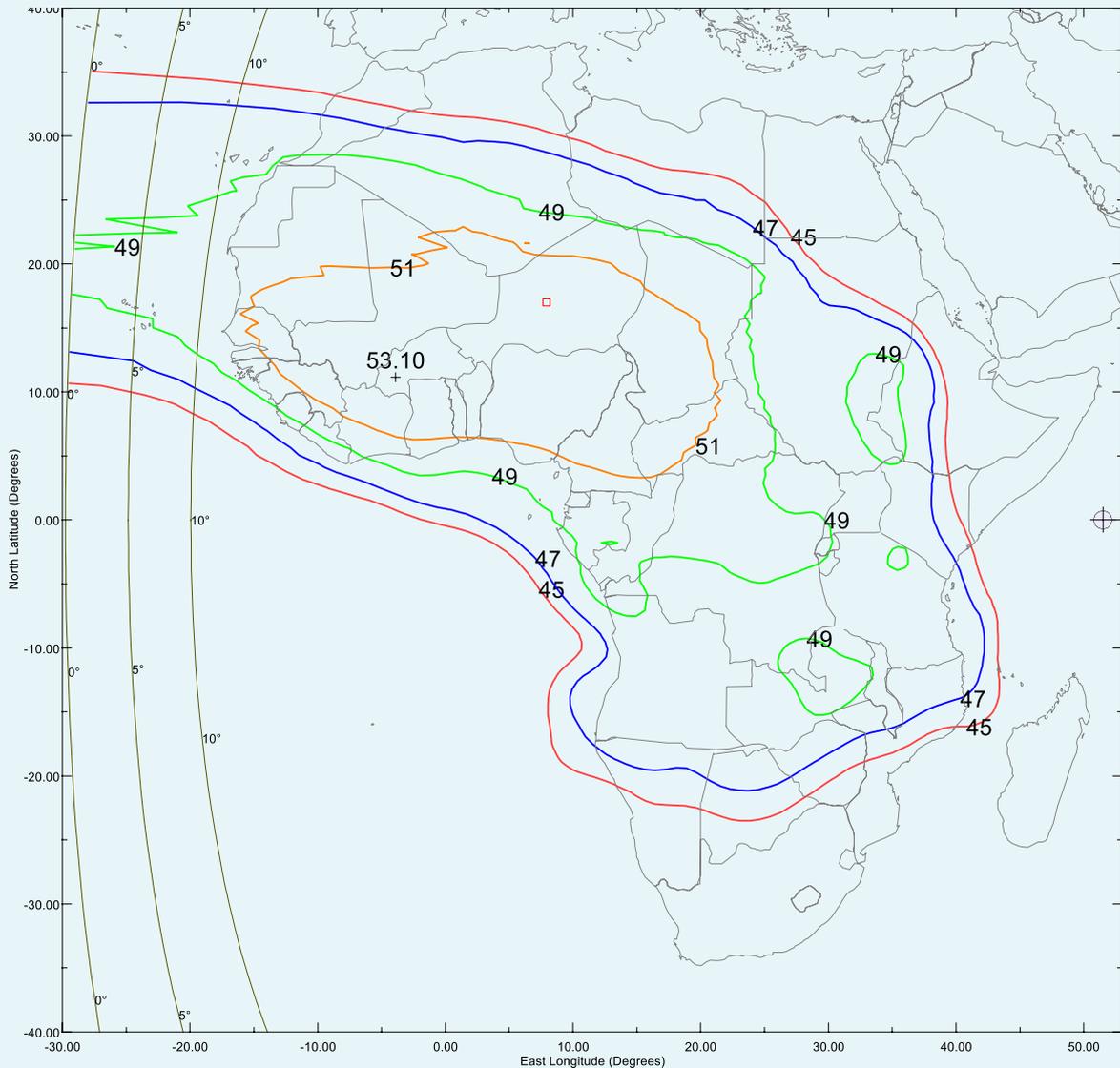
* 4x36 MHz cross-strapped (uplink in Europe, downlink in Africa Ku beam)

** Switch option for transponders between beams

FOOTPRINTS

Africa Ku-band

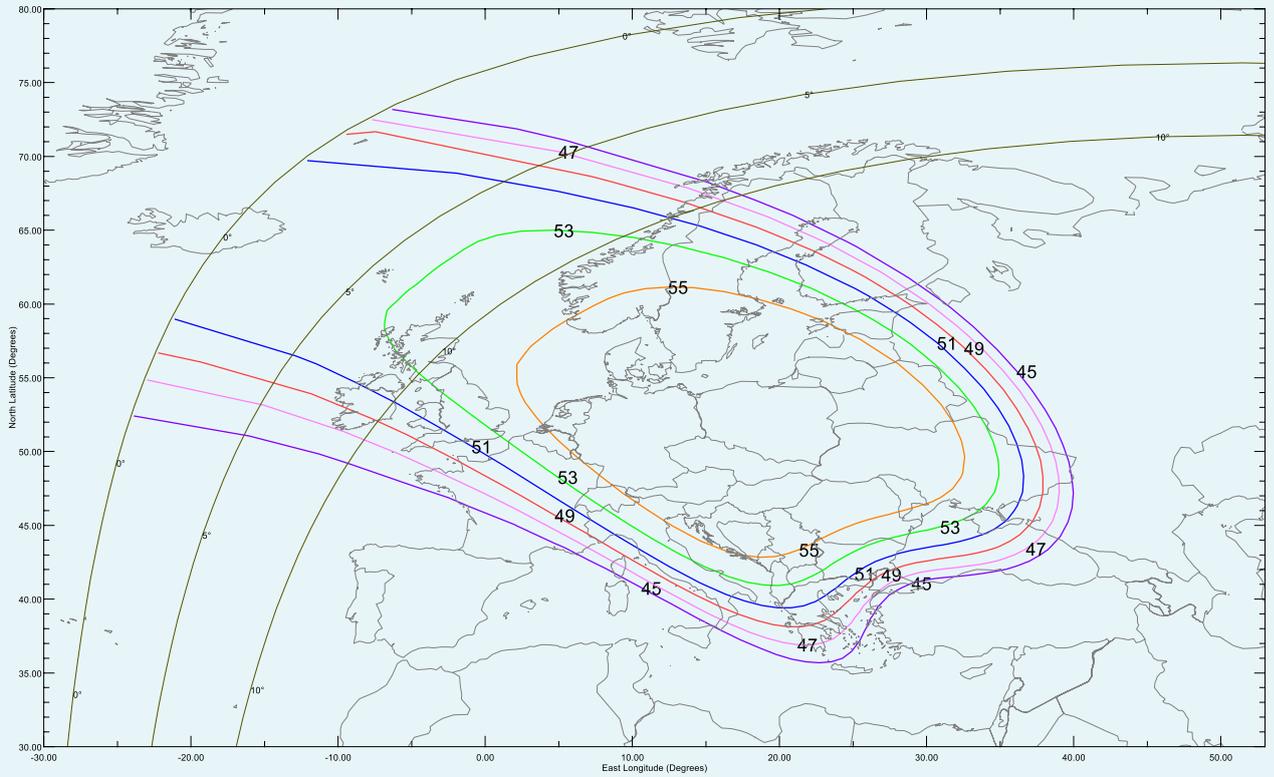
EIRP (dBW)



Transponders	: 12 x 36 MHz
DL frequency	: 10 950 – 11 200 MHz
UL frequency	: 14 000 – 14 500 MHz
Polarization	: V/H
Beacons	: 11 194 MHz (V) 11 197 MHz (H)

Europe Ku-band

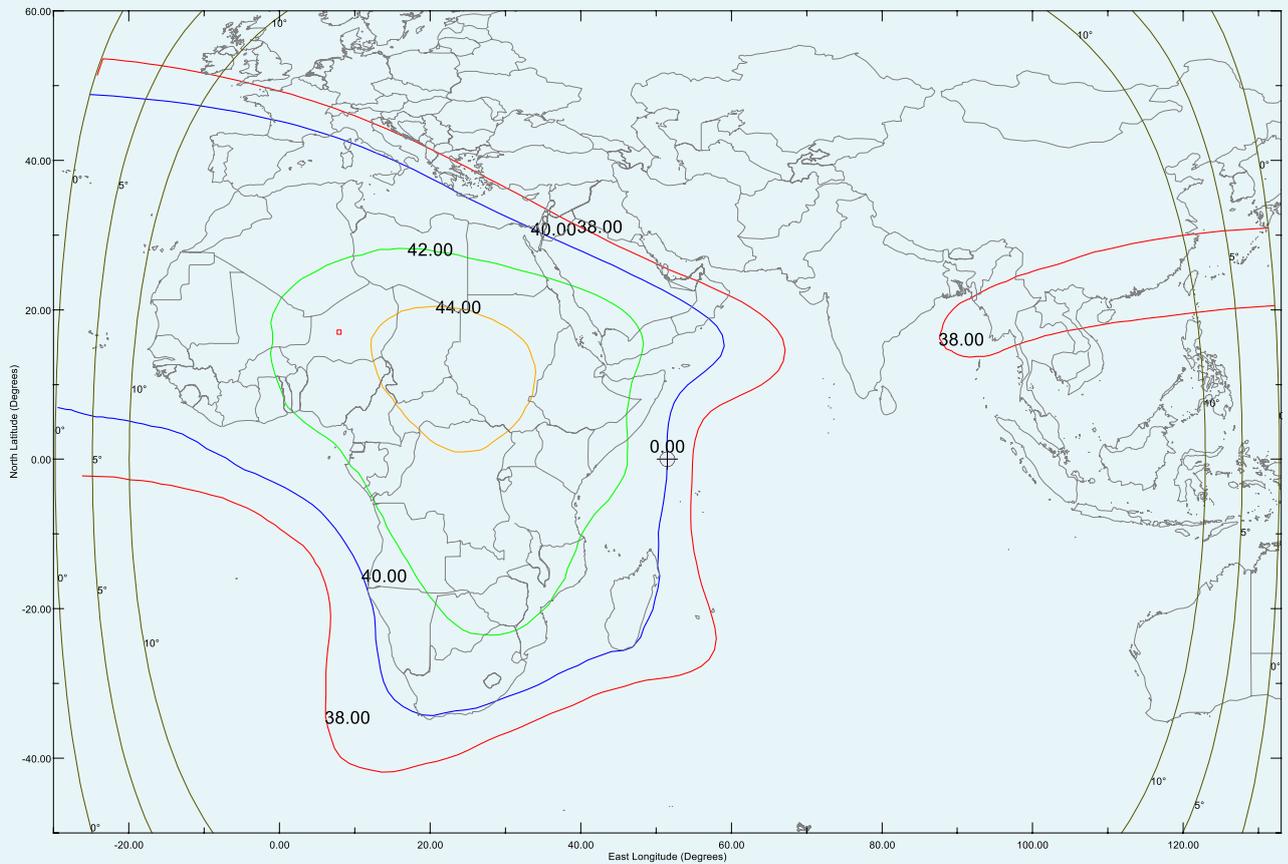
EIRP (dBW)



Transponders	: 4 x 54 MHz, 2 x 36 MHz
DL frequency	: 10 825 – 10 950 MHz 11 200 – 11 450 MHz
UL frequency	: 12 750 – 13 125 MHz
Polarization	: V/H
Beacons	: 11 445 MHz (H)

Africa C-band

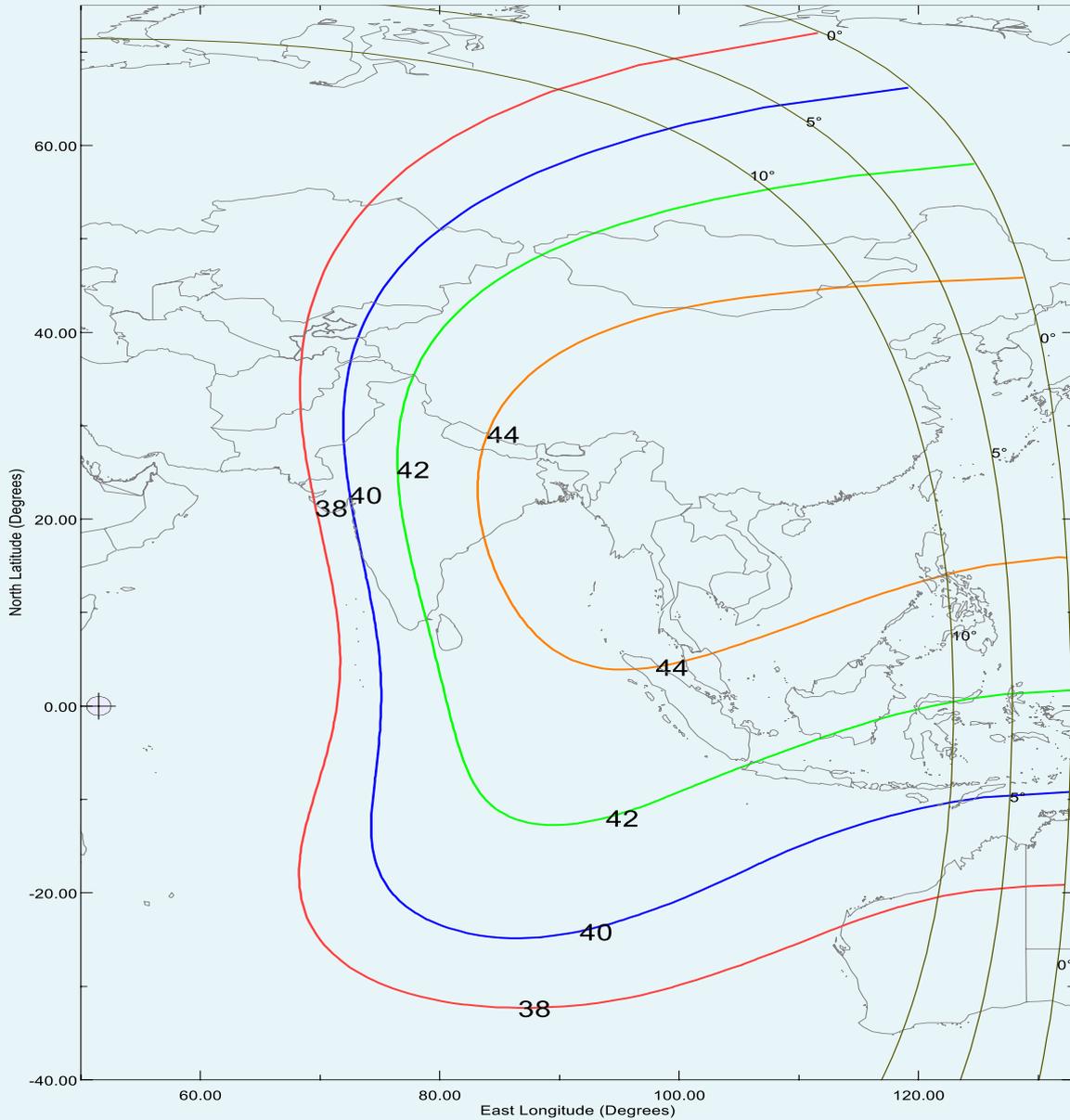
EIRP (dBW)



Transponders	: up to 16 x 36 MHz
DL frequency	: 3 600 – 4 200 MHz
UL frequency	: 5 850 – 6 450 MHz
Polarization	: CL/CR
Beacons	: 4 194.0 MHz (CR)
	: 4 195.6 MHz (CL)

East C-band

EIRP (dBW)



Transponders	: up to 12 x 36 MHz
DL frequency	: 3 600 - 4 200 MHz
UL frequency	: 5 850 - 6 450 MHz
Polarization	: CL/CR
Beacons	: 4 194.0 MHz (CR)
	: 4 195.6 MHz (CL)

www.belintersat.com

The National System of Satellite Communication
and Broadcast of The Republic of Belarus

220013, The Republic of Belarus
Minsk, Kulman, 2
Tel/Fax: +375 1716 96699
info@belintersat.com
COCC@belintersat.com